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UNDERSTANDING THE EFFICACY OF ONLINE POSTSECONDARY CULINARY ARTS  
EDUCATION

BY

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DISSERTATION

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## **ABSTRACT**

The method of culinary arts education can be traced to ancient times when masters trained apprentices to prepare and present meals. This method of transferring culinary knowledge and skill continues to shape modern culinary arts education, including culinary school. To remain relevant in a changing landscape for higher education, culinary schools must be willing to accept and adopt new, innovative ways to present culinary knowledge and skill to their students. This two-year concurrent triangulation mixed methods study examined three iterations of two online fundamental culinary arts courses, covering history, professionalism, sanitation, knife skills, and cooking methodology.

This study found that Automated Online was the least preferred among students, educators, and accreditors. Students described feeling engaged with the instructor in the courses that offered weekly face-to-face (ZOOM) sessions and promptly responded to text and email correspondence. Culinary school educators overwhelmingly indicated a preference for Synchronous Online courses to better gauge the competencies students are asked to produce or demonstrate. Regardless of modality, engagement and interaction between students and instructors, students and students, as well as students and content are key elements of effective course delivery. Course design that includes regular and substantive interaction may keep students committed, participating, and progressing.

## ACKNOWLEDGEMENT

I want to express my sincere, heartfelt thanks to my forever sweetheart, Sara. Without her love and support as I chased educational and professional advancement, I would not have survived the process. Her love, patience, support, and encouragement helps me achieve.

I want to thank my children, Christian, Kaitlyn, and Ashley. There were many years of missed band concerts and art shows, many missed movies and board games, and many missed family outings. Now, it is time to come home so we can celebrate.

During the final months of writing and revising, I became a “Poppy” for the first time. I hope my thirst for knowing will be infectious and continue in future generations. I hope Lydia (and future grandchildren) will want to learn and know.

Past and present leadership at the University of Arkansas Pulaski Technical College made this study possible by approving and supporting research at the Culinary Arts and Hospitality Management Institute. So, thank you Chef Todd Gold, Mrs. Renee Smith, Dr. Margaret Elibee, Dr. Marla Strecker, Dr. Summer DeProw, Dr. Bentley Wallace, Mr. Bill Ryan, and Dr. Angela Kremers. This project would not have been possible without your approval, support, encouragement, and collaboration.

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## **DEDICATION**

This work is dedicated to the American Culinary Federation Education Foundation. May you consider the findings of this study and open the door to accreditation of effective online culinary arts programs.

This work is also dedication to my children, Christian, Kaitlyn, and Ashley and my granddaughter, Lydia. May you all be life-long learners, never losing curiosity and the desire to know more about everything.

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## **CHAPTER 1: INTRODUCTION**

I have worked in a commercial kitchen for 31 years. My culinary experience has taken me to many places around the country and the world, from an international cable television program originating from San Pedro, Belize, to the 2008 Summer Olympic Games in Beijing, China. Training new culinarians became a significant part of my work about seven years into my career, focusing on mentoring younger, less experienced cooks; this interest in training made the transition to formal culinary education smooth and seamless.

In addition to my culinary background, my home life growing up was significant preparation for my current research interest. It is important to note that I grew up in a home surrounded by technology. My father was a customer engineer for IBM. The latest and greatest technology was readily available to me, beginning with the 1972 Atari Pong game and the 1982 Commodore 64 home computer.

In 2007, I began teaching as an adjunct instructor at Arkansas' only culinary school, Pulaski Technical College. Teaching in a formal setting became a passion. I started considering ways to incorporate technology and culinary education, leading to a master's degree in education in learning systems technology from the University of Arkansas at Little Rock, beginning in 2009. I had the interest to learn if online delivery of culinary arts education was even possible.

Now, I hope to build on the preparation mentioned above and study formal culinary arts education delivered online, specifically a practical, hands-on lab course, comparing the productivity of in-person and online students and surveying students and faculty about their experiences and perceptions.

The life of a professional culinarian is unique and unlike any other discipline or business. The work is relentless, thankless, and stressful. The hours are long. Exposure to temperature extremes (a rock broiler burning at 750-850 degrees and a walk-in freezer kept at a constant 10-15 degrees below zero), standing for long hours on hard floors, and no breaks for a proper meal all take a physical toll. Why do we do it? Because we are adrenalin junkies. We love the feeling of satisfaction after a successful service. We love the rush of a chaotic service. We love the creativity of new dishes and innovative methods. We love the smile on our customers' faces. I've been doing this work for more than 30 years. I've cooked in kitchens all over the United States and in many places around the world. Now, the greatest personal and professional fulfillment I get comes from teaching the next generation of professional culinarians.

## **1.1 RATIONALE FOR THE STUDY**

### ***1.1.1 The Amazon Effect***

Retailers are going bankrupt around the world in the face of Amazon's onslaught (Wells, Danskin, & Ellsworth, 2018). In recent years, thousands of retail stores have closed, including Sears, Macy's, JCPenney, Kmart stores, Payless, and RadioShack (Sanburn, 2017). Shopping mall visits have dropped by more than 50%. Customers increasingly turned to online retailing, contributing to Walmart closing 269 stores worldwide in 2016 (Rothaermel & King, 2017). "Clearly, there's a shake-up going on," Steven M. Lowy, co-CEO of Westfield, which operates dozens of malls around the world, told the Associated Press. "We understand the need to change and adapt" (Sanburn, 2017). Situations like these call for start-from-scratch, across-the-board innovation (Rigby, 2011). Caro, Kök, & Martínez-de-Albéniz (2020) asked "will giants like Amazon and Alibaba take over? Will consumers delegate their day-to-day shopping to bots and automated delivery services? Will brick-and-mortar stores be reduced to mere showrooms? Will

the industry reinvent stores and supply chains to deliver a unique value proposition to customers” (p. 55)?

“There is a growing consensus that the future of retail is not just in-store and not just online. The winners in retail will be those that can put them together. Frankly, we think we’re already doing the harder part. Locations matter because convenience matters. We have the stores, the associates, and the expertise in the physical world that others will need to build. To capture the upside of our strategic advantages, we need to develop a more seamless relationship with our customers ... We’ll give customers the choices they want and need by integrating digital and physical retail.” ... Walmart has seen success allowing customers to order online and then have a dedicated curbside pick-up at stores... While hybrid retail concepts are quickly evolving, Walmart was nonetheless the only traditional retailer in 2016 that grew sales in both its traditional stores and online (Rothaermel & King, 2017, p. 7).

The internet has successfully moved from a “fringe technology” to the mainstream popular culture (Bailey, 2001). Rigby (2011) suggested retailing executives must acknowledge that the new technologies will get faster, cheaper, and more versatile. They need to forecast the likely digital density in their categories and prepare for the effects. In the future, industry change will be further accelerated with the advent of new technologies like artificial intelligence, virtual reality (Sheth, 2020).

Rigby (2011) observed customers focus increasingly on price and convenience, which strengthens the advantages of online retailers. Rasch (2019) claimed that Sears, at one point, was the Amazon of today to the American consumer with shopping catalogs and the ability to deliver to remote areas. Sears was able to sell almost everything, from pencils to an entire house. However, Sears failed to transition to the digital economy and capitalize on the trends of online

shopping. On October 15, 2018, Sears Holdings company filed for Chapter 11 bankruptcy protection due to the company being unable to pay \$134 million in debt (Harris, Anitsal, & Anitsal, 2019).

Brick and mortar stores must recognize the threat posed by web-based rivals. Simply stated, e-commerce is growing three times (3x) faster than traditional store sales (Quan, 2014). Grover (2019) claimed both brick-and-mortar and online retailers face competition from Amazon, and to survive in today's competitive retail world, companies should adapt to changes in consumer behavior and develop strategies keeping their customers in mind. Jeff Bezos has continuously stressed the importance of prioritizing customers. Bezos once said, "If you're competitor focused, you have to wait until there is a competitor doing something. Being customer-focused allows you to be more pioneering" (Grover, 2019, p. 3).

"From the beginning of the company, Amazon has been innovators and trailblazers by going where no man or woman has dared go before. When the world said you cannot sell books online, Amazon was there selling books online, when people said you cannot sell everything online, Amazon was there pushing to sell more and more for less. When reporters and analysts told Jeff Bezos he did not know how to run a company, he showed them that he was, in fact, the only one that had the vision and grit to make the future come to the present" (Wiggington, 2018, p. 36).

Retailers failing to adapt and adjust to changes in market conditions and customer preferences have experienced significant financial hardship or have completely gone out of business (Wiggington, 2018). This could be the result of postsecondary culinary arts education if institutions and accrediting organizations similarly fail to adapt and adjust to the growing demand by students for increased use of technology and online options for course delivery. The

future of education is not just in-person and not just online; the future of postsecondary culinary arts education is adapting to both in-person and online instruction. An increasing number of students choose online courses and online programs. Bouchrika (2020) reported that:

- the percentage of students taking one or more online undergraduate classes increased from 15.6% in 2004 to 43.1% in 2016.
- the percentage of undergraduate students taking fully online degree programs increased from 3.8% in 2008 to 10.8% in 2016.
- the percentage of graduate students who took entirely online graduate (postgraduate) degree programs has increased from 6.1% in 2008 to 27.3% in 2016.
- the percentage of graduate students who take one or more online courses also increased from 16.5% in 2008 to 45.6% in 2016.

It will be increasingly important for institutions of higher learning to adapt and adjust to the preferences of students (see Figure 1.1). This will ensure that programs continue and flourish rather than diminish or, worse, drop from the university's catalog. To adapt and thrive, programs must understand the characteristics of the future student to meet their needs.



**Figure 1.1:** Universities are increasing the number of online course offerings, adapting to the increasing demand for distance learning (Academia Magazine, 2020)

### ***1.1.2 Reaching Students of the Future***

Successful teaching requires an understanding and appreciation of the learners' needs, backgrounds, interests, and learning styles (Roberts, Newman, & Schwartzstein, 2012). Papp (2011) concluded that the Millennial generation and their younger siblings like to gather information virtually when it is convenient for them and shop long after conventional stores are closed. Also, while some educational institutions are clearly at the forefront regarding the use of virtual worlds, all institutions will need to adapt to changing student populations and needs.

Millennials are people born between 1980 and 2000 who started entering the job market of the 21st century (Gibson & Sodeman, 2014; Smith & Nichols, 2015). This is the first generation born into households with computers (Myers & Sadaghiani, 2010). Hence, this generation is so comfortable with new technology that they are referred to as 'digital natives' (Hershatter & Epstein, 2010; Bauman & Shcherbina, 2008). Nava, Karp, and Nash-Stacey (2014) suggested millennials intensively use the internet, mobile technologies, and social media to conduct transactions and share their opinions about products and services in a global marketplace with endless options. Though they are the most educated generation, a one-size-fits-all perspective on Millennials is potentially misleading (Delbosc & Ralph, 2017). Sandeen (2008) stated:

“The millennial is likely to expect a high degree of customization and personalization in their educational opportunities. They will expect 24/7 access to instructors and student services staff. They will appreciate programs that provide behind-the-scenes access and learning-by-doing, like special tours and internship opportunities. Millennials expect to have wireless internet access wherever and whenever they want it” (p. 22).

As online communication and collaboration become more commonplace, universities are exploring the educational possibilities of online virtual environments for reaching the Millennials. Both virtual worlds and social networking constitute a large part of the Millennials' time, and incorporating these technologies into the classroom can foster a more collaborative and diverse learning atmosphere (Papp, 2011). According to Sandeen (2008), Millennials will tend to:

- show interest in career-related programs;
- show some interest in graduate school or degree prep;
- prefer online formats over classroom;
- react positively to career relevance in marketing messages;
- appreciate the ability to sample before enrolling;
- show greater preference for electronic channels;
- show interest in social networking as a marketing channel (p. 23).

Millennials are a technologically-oriented and savvy generation (Jonas-Dwyer & Pospisil, 2004; McGlynn, 2005; Jones, Jo, & Martin, 2007; Holicza & Kaděna, 2018; Chang, 2021), and many professors do not share their skills or attitude concerning technology. "Adapting to these students and incorporating online and social networking in the classroom is vital to engage these students. Instructors need to reassess their teaching methods and syllabi to garner Millennials' interest" (Papp & Matulich, 2011, p. 1). They suggest:

"Adapting to the Millennials is important, but a new type of learner will be here tomorrow, one that most likely has differing expectations and views technology even more uniquely. As instructors, we need to acknowledge and adapt to new learning styles, lest students tune us out and find the material irrelevant. Millennials have grown up with

technology and think nothing of it—it's a part of their everyday lives. Instructors need to become more comfortable with technology and incorporate it into the classroom and into their courses. Course delivery methods should employ technology where appropriate and offer the student several learning options. Find multiple solutions and engage students. Read about the newest technologies and attend conferences to learn about what's new and on the horizon. Modify your classes to include activities such as brainstorming, peer exchange, debate, concept mapping, case involvement, and an authentic project. A multidimensional approach is the path to success" (Papp & Matulich, 2011, p. 10).

Jones, Jo, and Martin (2007) suggested that to ensure our children and grandchildren receive the schooling appropriate to their needs, we must make some drastic changes now.

Speaking at the 2005 National Education Summit on High School in the USA, Bill Gates said:

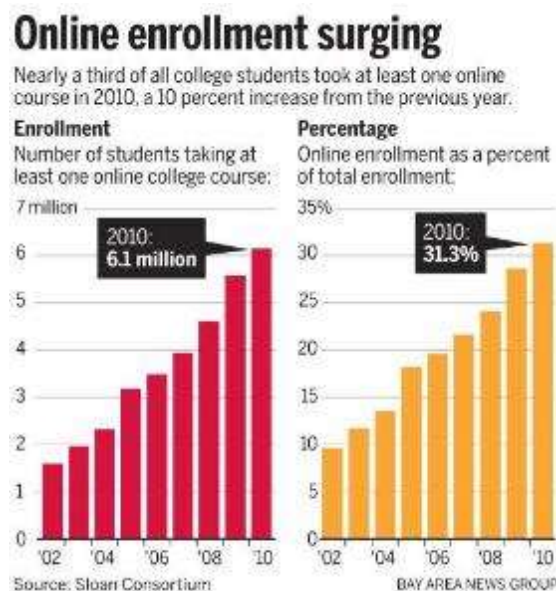
"Our schools – even when they're working exactly as designed – cannot teach our kids what they need to know today... Our schools were designed fifty years ago to meet the needs of another age. Until we design them to meet the needs of the 21st century, we will keep limiting – even ruining – the lives of millions of Americans every year" (Gates, 2005).

### ***1.1.3 Purpose of the Study***

Enrollment in online courses has outpaced overall university enrollment for the past several years; the growth of online courses does not appear to be slowing (Atchley, Wingenbach, & Akers, 2013). This study was conducted to understand the efficacy of online postsecondary culinary arts education by comparing automated online, hybrid online, and synchronous online course design with traditional, face-to-face courses.

“Although dozens of studies have compared student performance between online and face-to-face courses, most... have focused on populations (e.g., K-12 students) or contexts (e.g., hour-long educational modules) that are not relevant to the typical online college course. Only a few random-assignment or quasi-experimental studies have focused on semester-length college courses” (Xu & Jaggars, 2013, p. 47). Rather than focus this study on population, context, or single-assignment comparison, this study will focused on semester-length college courses, covering four semesters, comparing a “set of online courses against a similar set of face-to-face courses” (Xu & Jaggars, 2013, p. 47), focusing on three iterations of two culinary arts lab classes.

Online college courses are a rapidly growing feature of higher education. One out of three students now takes at least one course online during their college career (see Figure 1.2), and that share has increased threefold over the past decade (Allen and Seaman, 2013). The promise of cost savings, partly through economies of scale, fuels ongoing investments in online education by both public and private institutions (Bettinger et al., 2017, p. 2855).



**Figure 1.2:** The 2011 Survey of Online Learning revealed that nearly one-third of all students in higher education are taking at least one online course (Murphy, 2012).

Bettinger et al. (2017) conducted a study that compared online and in-person classes.

They found:

“The university’s approach to online education creates an intuitive counterfactual. Each course is offered online and in-person, and each student enrolls in either an online section or an in-person section. Online and in-person sections are identical in most ways: both follow the same syllabus and use the same textbook; class sizes are approximately the same; both use the same assignments, quizzes, tests, and grading rubrics. The contrast between online and in-person sections is primarily the mode of communication. In online sections, all interaction—lecturing, class discussion, group projects—occurs in online discussion boards, and much of the professor’s lecturing role is replaced with standardized videos. In online sections, participation is often asynchronous, while in-person sections meet on campus at scheduled times. In short, the university’s online classes attempt to replicate its traditional in-person classes, except that student-student and student-professor interactions are virtual and asynchronous” (Bettinger et al., 2017, p. 2856).

This study added to the Bettinger et al. study by designing an online section of 2 courses at the University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute, CUL 1302 Food Production I and CUL 1303 Food Production II. The study included three different iterations of the online course – Automated Online, Hybrid Online, and Synchronous Online. The purpose was to understand the efficacy of online postsecondary culinary arts education with the following hypothesis in mind:

*If the course is designed with student engagement and learning objectives/knowledge and skill competencies in mind, an online practical culinary arts course can be designed and*

*delivered effectively and efficiently, satisfying students, faculty, and accrediting organizations.*

The study investigated the following research questions:

1. How can practical (hands-on) culinary arts education be delivered effectively in an online environment?
2. In an online culinary arts program, what methods can faculty use to maintain student engagement and presence?
3. How is online culinary arts education perceived by students, faculty, and accrediting organizations?

#### ***1.1.4 Overview of the Study***

This study is organized into the following chapters: Chapter 1 – the introduction, including the rationale and purpose of the study, hypothesis, and research questions; Chapter 2 – a comprehensive literature review, exploring higher education, online learning, and culinary arts education; Chapter 3 – an exploration of the theoretical framework of the study, research design, and research design implementation plan; Chapter 4 – a detailed examination of the data collected and the results of the data analysis; and finally, Chapter 5 – an overview of the findings, implications, and recommendations for future research and practice.

The data that were collected in this study came from pre-course and post-course surveys, a post-course practical exam, and a comparison of in-person and online student performance, not just comparing and contrasting student grades. “Grades are certainly an imperfect measure of what students actually learn in a course, and so we are cautious about over-interpreting the effects on grades. Nevertheless, these results likely do provide some signal about learning” (Bettinger, Fox, Loeb, & Taylor, 2017, p. 2867). This study employed concurrent triangulation

mixed methods research design, examining much more than grades. Pre-course and post-course surveys, in-course observations, and an end-of-semester summative practical exam assessed by American Culinary Federation certified evaluators provided rich data to answer each research question.

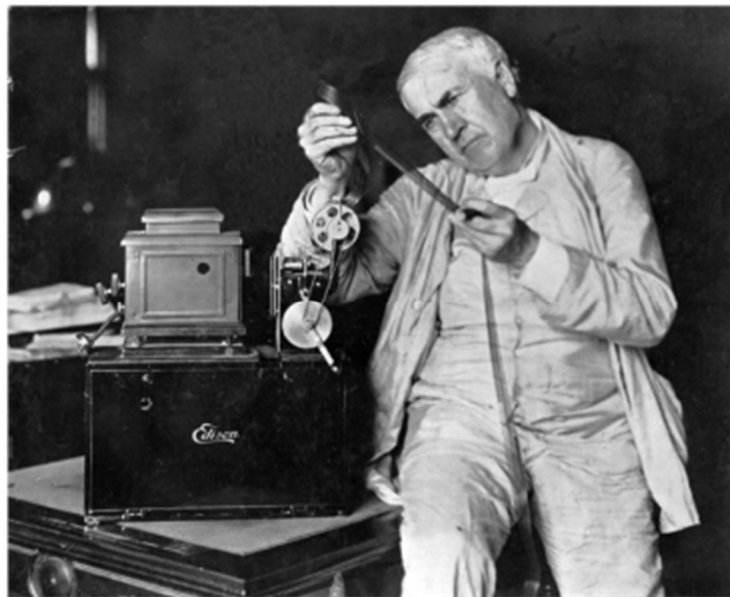
While distance learning is nothing new, the online delivery of culinary arts content is unique. It is so new, in fact, that within the scholarly literature, few publications have been found that directly addresses this topic. The publications that do address culinary arts, primarily refer to the student, educator, and employer perceptions rather than the actual classroom.

The general field literature review explored online learning and teaching. The special field literature review addressed culinary arts education, including one article that described a 2015 experiment of web-based content delivery in a Taiwan high school. While a one-time experiment, this study and findings are paramount to examining the future of online culinary arts education in both teaching and learning.

## CHAPTER 2: A REVIEW OF THE LITERATURE

Quoting Thomas Edison from 1913, Varonis (2014) wrote, "Books will soon be obsolete in the schools. Scholars will be instructed through the eye... Our school system will be completely changed in 10 years." Edison went on to propose "the future will see motion pictures more or less in the home" (Thomas A. Edison Papers, 2016). Describing geography education, Edison continued:

“A printed description is obviously incomplete, and mental pictures are formed that are generally incorrect. But, if geography were taught by moving pictures, if foreign lands and cities were illustrated, if the topography and general characteristics were shown, if the habits and demeanor of the people were depicted, and if their occupations and methods of work and recreation were illustrated, the child would have as clear an idea of everything as if the original scenes were viewed directly” (Thomas A. Edison Papers, 2016).



**Figure 2.1:** Thomas Edison in his West Orange library examining a strip of film (Service, 2012)

## 2.1 History of Online Education

Varonis (2014) dates distance learning to the early 1700s and the introduction of the correspondence course. However, Campbell-Thrane (1984) traced correspondence education to Moses when he brought the tablets down from Mt. Sinai. “Instruction by correspondence is, in fact, as old as written communications” (Campbell-Thrane, 1984).

Founded in 1873, The Society to Encourage Studies at Home was established as the “first significant example of distance education” in America (Bergman, 2001). According to Bergman (2001), the purpose was to provide educational opportunities to women in English, History, Science, French, German, and Art. Bergman (2001) noted that The Society to Encourage Studies at Home taught students through the mail; educators mailed syllabi to students, and students mailed assignments to instructors in a self-paced program.

Charles Wedemayer (1981) observed that, from 1850 to 1930 in the United States, correspondence education was the only formal modality that enabled learners to pursue education, overcoming space, time, economics, and social place. Ediger (1983) noted that the students who most benefited from correspondence education were those with physical disabilities, those who were employed full-time, those needing extra credit for certifications, or those seeking pay raises. According to Pittman (2003), correspondence was the only option for distance learning by American students for generations.

Campbell-Thrane (1984) suggested that a strong network of correspondence educators was needed to keep up with an expansion of correspondence education, keep in touch with emerging educational needs, develop technologies, and support each other. This prepared educators to reach a growing student population and maximize resources through online education (Lei & Gupta, 2010).

## 2.2 Becoming a Chef

Chef Anthony Bourdain encapsulated the life of a chef, questioning students' motivations for attending culinary school and choosing the life of a culinary professional when he said:

“So, you want to be a chef? You really, really, really want to be a chef? If you've been working in another line of business, have been accustomed to working eight-to-nine-hour days, weekends and evenings off, holidays with the family...; if you are used to being treated with some modicum of dignity, spoken to and interacted with as a human being, seen as an equal — a sensitive, multidimensional entity with hopes, dreams, aspirations, and opinions, the sort of qualities you'd expect of most working persons — then maybe you should reconsider what you'll be facing when you graduate from whatever six-month course put this nonsense in your head to start with” (Gonzalez C., 2019, p. v).

Wan et al. (2010) defined chefs as:

“Chefs are trained professional cooks who are proficient in all aspects of food preparation, often focusing on a particular cuisine. They manage and direct kitchen activities and entice the life of thousands of people by surprising them with their cooking skills and food. To develop employable chefs with the right practical skills, chef learners go through culinary arts training or earn diplomas/degrees. The field of culinary arts is a well-known discipline across the globe. Culinary relates to cooking, which includes the arts of preparation, cooking, and presentation of food” (p. 77).

Jabeen, Tahara, and Lehmann (2019) observed that culinary art is a complex art that combines ingredients and spices, blending them into amazing flavors by applying various cooking methods and is considered a combination of art and science. Zahari and Awang (2014)

suggested that the focus of the culinary school curriculum should be to provide individuals with a solid foundation of knowledge and skills in culinary preparation and management.

So many young, want-to-be culinarians believe that watching food television, reading cookbooks, and wearing a chef coat are the key ingredients of being a chef (see Figure 2.2).

Firstwefeast.com's post about the life cycle of a cook described the perspective of many culinary students as they enter culinary school:

“You just changed your Instagram handle to add the word *chef* before your name, and you mostly post close-ups of late-night meals that you “Iron-Cheffed”... The counselor that convinced you culinary school was a great idea promised you would be a sous chef within a year, and you believed her. But so far, no one wants to hire you because you talk too much and make a mess everywhere you go, and a couple of chefs have told you that if you come into work wearing those dirty checkered pants again, they will burn them. Your knives are dull, your station is dirty, and you have already applied twice to be on *Top Chef*” (Nakano, 2015).



**Figure 2.2:** Culinary instructor tells his student to clean up his station and his chef coat (Nakano, 2015).

New York City chef Amanda Cohen suggested a ‘test’ to determine if one has the capacity and personality for the foodservice industry, especially in the back-of-the-house. She said:

“First, go into your kitchen. Put a giant pot of boiling water on the stove and stand in front of it for eight hours. Occasionally stab yourself in the hand with a sharp knife. Find a right-wing radio show, the more rabid, the better, and turn it up to ear-splitting volume. Pretend that when they are yelling at the president, they are actually yelling at you. Imagine that each insult is very personally directed at your stupid face. Try not to cry. When the eight hours are up, imagine that this is every day of your life and ask yourself if you still want to be a chef. Yes? Then congratulations! You are exactly the kind of masochist who is ready to cook in a professional kitchen” (Gonzalez, 2019, p. v).

Zopiatis (2010) indicated the most challenging profession in the hospitality industry is the chef. Angus McIntosh, in the October 1990 issue of the *American Culinary Review*, a publication of the American Culinary Federation, defined a chef as a “creator; master of innovation; historian; pleasure-giver; recognition-seeker; time-manager; perfectionist; cajoler; consoler; stress victim; craftsman; accountant; student; teacher; comforter; referee; liaison; surrogate parent; story-teller; dishwasher; patriot; preacher; and whipping post” (VanLandingham, 1995, p. 18; McIntosh, 1990, p. 22-23). This is a position that someone should occupy with scientific mastery, artistic innovation, and an appropriate set of skills, allowing them to be successful in culinary and managerial competence (Zopiatis, 2010).

Wright (1908) observed that under the ‘ancient’ apprenticeship system, anyone wanting to learn and work in certain trades, like culinary arts, had to train for the chosen trade as an apprentice and continue training until advancing to journeyman (see Figure 2.3). “Apprentices

form a large part of gourmet restaurant kitchens, and head chefs are obliged to hand down knowledge and skills. In the meantime, driving business while simultaneously teaching apprentices creates a paradox: there is not always time for head chefs to teach and for apprentices to learn” (Reyes-Perez de Arce & Halskov, 2011, p. 2). As one alternative to the time constraints head chefs have to train apprentices, Alayoğlu (2012) proposed mentoring, where a ‘master’ guides a trainee or group of trainees, as an effective method of helping young employees integrate and adapt to the environment of a new workplace.



*Figure 2.3: Medieval Baker & Apprentice, unknown artist (Cartwright, 2018).*

A 21<sup>st</sup> century alternative to address the needs of upcoming apprentices’ turned chefs is merging technology with formal education, engaging in online culinary education. Richard Riley, while serving as Secretary of Education under President Bill Clinton, said, “Technology can help tailor instruction to the individual needs of students; improve instructional management; support teachers and their professional development; connect student learning with the real world and schools to the home and community, and expand time for learning beyond the traditional school day” (Riley, 1996, p. 49). According to the National Restaurant Association’s latest

forecast report, Restaurant Industry 2030: Actionable Insights for the Future, three of the top five developments for the future of the foodservice industry will center around the use of technology (NRA, 2019).

Song (2010) described today's students as having grown up with the internet and digital devices. As such, educators should recognize the need to develop and design courses to be delivered in ways appropriate for the learning styles of today's learners. In addition to course design that meets the needs of learners' learning styles, course design that prepares learners for the rigors of working in a specific industry is equally important (McMullen, McMullen, & Witcher, 2013).

“[An] unflinching army mentality not only makes every kitchen tick, it makes you work faster and harder than you thought possible. Why a person chooses to become a chef, why they decide to put themselves through all this, is another matter. Love of food can only partly explain it. There are easier ways to master cooking coq au vin or tunnel-boning a leg of lamb. A second, more destructive appetite is at work. A pursuit of some violent glory. Yet, it comes back to the same military principles. ‘Cheffing’ is a food fight, and he who does it must love the fight as much as the food” (Gonzalez, 2019, p. 17).

### **2.3 History of Culinary Education**

Gastronomy (*αστρονομία*) can be traced back to Ancient Greece and Ancient Rome (Zopiatis, Theodosiou, & Constanti, 2014). “The arts that are called mechanical are also, and naturally enough, held in bad repute in our cities. For they spoil the bodies of workers and of superintendents alike, compelling them to lead sedentary, indoor lives, and in some cases, even to pass their days by the fire. And as their bodies become effeminate, so do their souls become

less robust. Besides this, in such trades, one has no leisure to devote to the care of one's friends or of one's city so that those who engage in them are thought to be bad backers of their friends and bad defenders of their country” (Anderson, 1912, p. 191).

According to Gonzalez (2019), slaves in ancient Greece served as household chefs, going through extensive training. In the third century BCE, one of the seven Greek masters of cookery, Aegis of Rhodes, specialized in cooking seafood and recording recipes (Snodgrass, 2004). Archestratus (4th century B.C.) was the first to use *gastronomy* in his book that described food and wine practices in the Mediterranean region (Zopiatis, Theodosiou, & Constanti, 2014). The first professional society of cooks was established in ancient Rome (Gonzalez, 2019). Zopiatis et al. (2014) observed that the birth of modern French cuisine in the 17th and 18th centuries provided the impetus for the development of culinary education.

Miles (2007) wrote that formal apprenticeships, in which apprentices were indentured to a master for years to gain skill and knowledge, began in the Middle Ages. According to Schmidt (2014), food and drink guild rules allowed master cooks only one apprentice at a time, limiting the number of people allowed to train in the art of cuisine and making the training much more valuable. Schmidt (2014) further observed that an apprentice could train in several different guilds before settling on a single guild and becoming a master himself. During the apprenticeship, the labor of the apprentice belonged to the master; the apprentice often received no wages during the first years of his service and very meager wages until he became a journeyman (Wright, 1908).

Louis XIV's Edict of Fontainebleau (see Figure 2.4), which dictated the expulsion of Protestants from France, also resulted in a mass exodus of skilled artisans from France, including many cooks who had been professionally trained in the food-guilds of Paris. This bolstered the

number of culinary professionals who sought work outside of France (Schmidt, 2014), expanding formal culinary training outside of France.



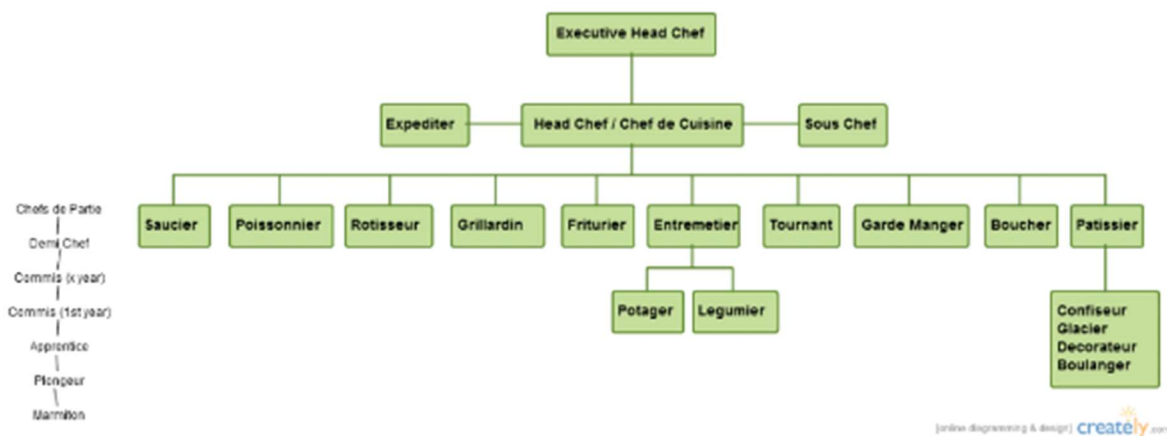
**Figure 2.4:** Louis XIV's Edict of Fontainebleau, Revocation of the Edict of Nantes, 1685 (GettyImages, 1754).

Schmidt (2014) observed that cooking as art was a notion that first became noticeable in England during the seventeenth century, and cookbooks published there reflect this idea that French masters propagated. After the Revolution (French Revolution, 1798), “cooks lucky enough to retain a position were thus obliged, for want of help, to simplify the work to be able to serve dinner and then to do a great deal with very little. Necessity brought emulation; talent made up for everything, and experience, that mother of all perfection, brought important improvements to modern cuisine, making it at the same time both healthier and simpler” (McGee, 2004, p. 587).

George-Auguste Escoffier, the “Father of Modern Cookery,” “the king of chefs and the chef of kings” (Gillespie, 1994; James, 2002; Snodgrass, 2004; Miles, 2007; Cullen, 2012),

became an apprentice cook at a young age. “In October 1859, the day after his thirteenth birthday, he took his first communion. It was the end of childhood, and his father told him he was to be a cook. As August recalled in old age, “There was nothing I could do but obey” (James, 2002, p. 2). He became an apprentice saucier to his uncle (Snodgrass, 2004). Cullen (2012) related that while working at the Savoy Hotel in London, Escoffier wrote his 1903 book *Le Guide Culinaire* as a hotel training model for apprentices. It was during his service at the Savoy Hotel that Escoffier created the kitchen brigade system.

Escoffier’s kitchen brigade system (see Figure 2.5) is an approach to structuring the working and training environment within a commercial kitchen that exists today (Gillespie, 1994; Miles, 2007). Gillespie (1994) indicated the kitchen brigade system “was and remains a means of managing the division of labor in the hotel and restaurant kitchens [by requiring] developmental stages of skills to be mastered ... for promotion” (p. 20).



**Figure 2.5:** Chef Georges Auguste Escoffier’s Kitchen Brigade. He had over 20 positions and dozens of cooks in his kitchens (ChefsResources, 2017).

Escoffier advocated for formal culinary education for young boys; this led to Britain’s first cookery school at Westminster Technical Institute in 1910 (James, 2002). In 1918, apprenticeships were reduced from seven years to five; the reduction was a response to skills shortages and the demand for qualified tradesmen (Hamilton & Higman, 2003; Miles, 2007).

Woodhouse (2015) noted that the crossover of *Le Guide Culinaire* into formalized learning was in 1946 when two American women, Katherine Angell and Frances Roth, adopted Escoffier's book as the core curriculum for their new cookery school; the Restaurant Institute of Connecticut (now the Culinary Institute of America) opened in 1946 (Hertzman, 2006; Hertzman & Stefanelli, 2007; Maas, 2010; Mandabach, Revalas, & Cole, 2002), in part as a need to train veterans returning from World War II (Brown, 2005; Maas, 2010).

To improve and provide a base for culinary career education, VanLandingham (1995) reported, the Educational Institute of the American Culinary Federation organized and published a training program for cooks, an abbreviated apprenticeship, lasting only three years; upon the completion of the training period, a skills test was given in theory and in practical areas, leading to certification as a certified culinarian. The American Culinary Federation, founded in 1929, the only culinary licensure program recognized by the United Department of Labor (Cossio, 2016), is the largest professional association of chefs and cooks in the United States. The organization emphasizes education through its certification program, culinary competitions, regional and national conferences, and publications (Hertzman, 2006; Matuszewski, 1999). In 1986, the American Culinary Federation recognized the need for professional accreditation of culinary arts programs as the number continued to rise (Brown, 2005; Maas, 2010).

In 1973, Johnson & Wales University announced the opening of the College of Culinary Arts and the addition of an associate degree in culinary arts, the first degree in the United States (Maas, 2010). In 1986, the American Culinary Federation created the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) to ensure that industry standards are met within educational environments; the accreditation process certifies that apprenticeship programs and schools meet specific competencies (Hertzman J. L., 2006). "In

Turkish restaurants, the *ustacılık* (apprentice) system, characterized by devotion and learning by experience, has been the main channel of developing competency in becoming a cook” (Yenal & Kubiena, 2016, pp. 64-65).

## **2.4 Learning Theories**

In his online blog, Paul Sorgule (2021) wrote, “Just as the restaurant industry evolves, so too must the industry of education.” He continued, “If you understand that one way to avoid failure is to know why others wave the white flag, then a course might be set to do just the opposite, succeed.” Wong (2015) reflected on the downward trajectory of enrollment in hospitality educational programs:

“Upon reflection of this decline, there could be many reasons, which caused a consecutive downward trajectory regarding enrollment. First, individuals are finding that a formal degree is not required for entry-level positions in the hospitality industry. Second, people are utilizing technology and videos to substitute for formal education and are finding success in the entry-level hiring process. Third, this generation does not see the value in formal education for entry-level employment. True as that might be, trends have shown that these individuals forego formal education completely and immediately enter into the workforce” (p. 1).

Brownell and Chung (2001) suggested that the hospitality curriculum may not be offering the proper knowledge and skills for those seeking future work and that a change must be made in higher education to address the issue; they further suggested that individuals need more than technical skills to be successful in their future careers.

Practical aspects within culinary arts programs are often associated with the experiential learning process (Wan, et al., 2010). Sperling (2017) observed that a hallmark of a Culinary

Institute of America degree is the depth of experiential learning where well over 50% of its curriculum is experiential, with a combination of classroom lectures and hands-on laboratory experiences. Potosky (2002) proposed group projects and exercises, games/simulations, role-plays, and other approaches that require the learner to actively participate in their learning as instructional design opportunities for experiential learning.

According to Briers (2005) and Leveritt et al. (2013), experiential learning is a process through which a learner acquires knowledge, skill, and value from direct experience; experiential learning has the potential to be an effective method of developing students' understanding of food and food preparation methods. Coker-Bolt (2010) observed problem-based learning, in which students are provided specific scenarios to identify issues and solutions, as a potential instructional method. She further suggested that using hands-on, experiential learning programs will help develop critical thinking and foster the skills needed for students to enter today's workforce successfully.

Experiential learning, an educational approach that has proven to be successful in bridging the gap between theory and practice includes: internships, service learning, and practicums according to Oshins & Brown (2018) and Anderson-Noto (2013). Additionally, Potosky (2002) offers, that experiential learning requires careful planning and preparation before class meets and relies heavily on the facilitation skills of the instructor. Further, students who participate in experiential learning programs have an increased capacity to adapt to change and demonstrate superior leadership and fiscal management skills (Anderson-Noto, 2013; Lee, 2007). Students are more engaged in their coursework and bond with their instructors through this approach to culinary arts education (Smyth, 2016).

Leveritt et al. (2013) outlined the four stages of experiential learning as:

1. Concrete experience
2. Reflective observation
3. Abstract conceptualization
4. Active experimentation

Young, Caudill, & Murphy (2008) defined the four stages of experiential learning. They claim that “Concrete experiences are the basis for subsequent reflections which are assimilated and distilled into abstract concepts from which new implications for action can be drawn. These implications can be actively tested and serve as guides in creating new experience” (p. 29).

Referring to abstract conceptualization, they stated “learners broaden their learning by integrating theories and concepts into the process. In this stage, learners are asked to transform their experiences from the concrete to a more symbolic system through the use of model-building assignments, critiques of models and theories and concept mapping” (p. 30). Hatcher & Bringle (1997) defined reflective observation as the intentional consideration of an experience in light of specific learning objectives; Young, Caudill, & Murphy (2008) defined reflective observation as “a knowledge transformation stage, which creates meaning through observation and inward reflection upon previously acquired knowledge and concentrates on what the experience means to the individual” (p. 30). They further described “active experimentation, which also involves knowledge transformation, focuses on the external interaction with the environment and involves testing or use of concepts [and] theories in practice” (p. 30).

Wan et al. (2010) defined competency as a combination of terms such as knowledge, skills, abilities, and qualities that lead to one person's ability or capabilities to achieve a successful outcome in a specific task. The focus of instruction is demonstration, explanation, and practice of skill (Lopez-Valadez, 1987). According to Martell (1986), an integral aspect of

competency-based education is evaluating student achievement based on what they know rather than comparing what other students know. Culinary competency includes both knowledge of culinary arts and practical culinary skills (Bissett et al., 2010; Wan et al., 2010), as well as the essential capacity, abilities, and knowledge that are required to perform a specific job effectively (Jirasinghe & Lyons, 1995; Wan et al., 1995).

In a competency-based framework, learners must drive their educational process, learners and teachers jointly must share responsibility for the content and path of learning, and learners, teachers, and learning environments must interact to achieve the necessary outcomes of education. Given this learner-centered focus, lifelong learning skills are foundational to the success of competency-based education (Schumacher et al., 2013).

Collaborative learning activities can engage students' participation and interaction, working together toward a common academic goal and increasing the level of satisfaction and feelings of connection and community (Alzahrani & Woollard, 2013; Zhan, 2008).

For most people now living in a world in which e-learning, online learning, and blended learning are such familiar features of education, it is hard to imagine the world of the 1970s and 1980s, when any suggestion that students could learn as well at a distance from their teachers as they could in a classroom was, to the vast majority of educators, a preposterous idea (Moore, 2018).

An argument for a specific theory of distance education was first made in the following terms in a presentation to a conference about correspondence education:

“As we continue to develop various non-traditional methods of reaching the growing numbers of people who cannot or will not attend conventional institutions but who choose to learn apart from their teachers, we should divert some of our resources to

the macro-factors, i.e., describing and defining the field . . . discriminating between the various components of this field; identifying the critical elements of the various forms of learning and teaching, in short building a theoretical framework which will embrace this whole area of education” (Moore, 1973, p. 661).

#### ***2.4.1 Constructivism***

Psychologists such as Vygotsky, Piaget, and John Dewey have developed Constructivist Learning Theory, which seeks to answer how people know what they know and focuses on the belief that solving problems helps individuals in thinking, learning, and development (Alzahrani & Woollard, 2013). According to Alzahrani and Woollard (2013), "a teacher as a facilitator, should provide rich environments, experiences, and activities for learning by incorporating opportunities for collaborative work, problem-solving, authentic tasks" (p. 4). According to Brown et al. (1996), "constructivist teachers allow student responses to drive lessons, shift instructional strategies, and alter content" (p. 173). The constructivist teacher values learner reflection and cognitive conflict and encourages peer interaction (Alzahrani & Woollard, 2013).

Constructivism is defined as actively constructing knowledge and meaning from learners' own experiences (Edelson, Pea, & Gomez, 1996; Doolittle, 1999; Koohang, Riley, & Schreurs, 2009; Wong, 2015). According to Edelson, Pea, and Gomez (1996), learners often construct knowledge as individuals isolated from other learners. Hrastinski (2009) argued that there are many ways to structure learning and many meanings or perspectives for any concept. Cobb (1994) suggested constructivism is a perspective that focuses on what students learn and how they learn it.

Specifically, for entry-level positions in the hospitality industry, Wong (2015) observed that a formal degree is not required. Many do not see the value of formal education for

employment, and many utilize technology and videos to substitute for formal education.

Subramonian (2008) answered the difficulty some employers have trying to recruit work-ready employees, suggesting education is the key when learners have the opportunity to develop the competencies the industry demands. Iglesias Xamani (2013) contended educators are facilitators of knowledge, helping learners construct knowledge, integrate it, and apply it to multiple situations by creating relevant, realistic, and contextualized tasks. To accomplish this, Doolittle (1999) recommended:

1. Learning should take place in authentic and real-world environments.
2. Learning should involve social negotiation and mediation.
3. Content and skills should be made relevant to the learner.
4. Content and skills should be understood within the framework of the learner's prior knowledge.
5. Students should be assessed formatively, serving to inform future learning experiences.
6. Students should be encouraged to become self-regulatory, self-mediated, and self-aware.
7. Teachers serve primarily as guides and facilitators of learning, not instructors.
8. Teachers should provide for and encourage multiple perspectives and representations of content (Doolittle, 1999, p. 8).

#### ***2.4.2 Experiential Learning***

Some scholars, such as Gentry (1990), expressing their conviction that experiential learning is effective, quote Confucius: "I hear, and I forget; I see, and I remember; I do, and I understand" (p. 9). Others have quoted Sophocles' 400 B.C. statement, "One must learn by doing the thing, for though you think you know it – you have no certainty until you try" (Gentry, 1990, p. 9).

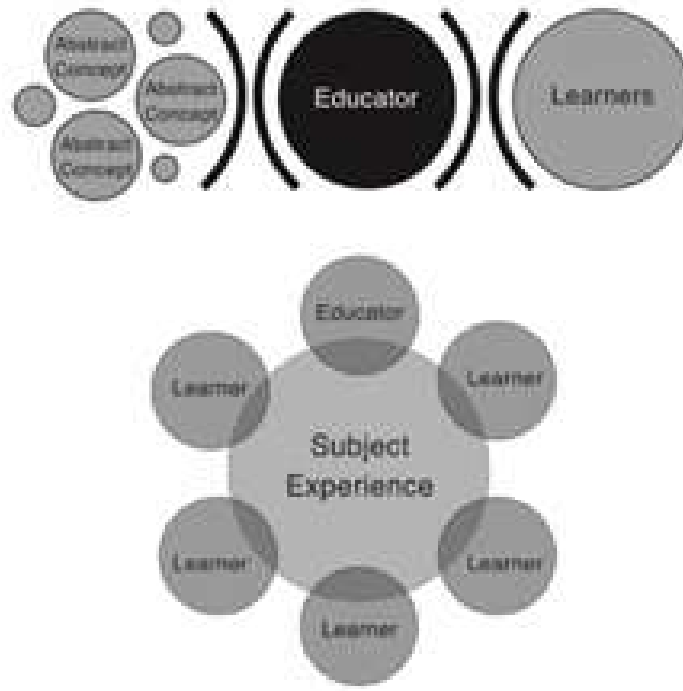
McCarthy (2016) defined experiential learning as active, interactive learning in which learners take an active role in the learning process. She suggested that knowledge is created through an adaptive process that merges experience, perception, cognition, and behavior. David Kolb (1984) defined experiential learning theory as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (p. 41).

A common usage of the term [experiential learning] defines it as a particular form of learning from life experience, often contrasted with lecture and classroom learning (Kolb & Kolb, 2017). Roberts (2003) suggested placing students into real-life situations to allow them to learn from their experiences and gain knowledge that they can apply later in different situations. Mattar (2018) emphasized the importance of real-life and practice-based experiences in authentic work environments for relevant teaching and learning. John Dewey stated:

“I think that only slight acquaintance with the history of education is needed to prove that educational reformers and innovators alone have felt the need for a philosophy of education. Those who adhered to the established system needed merely a few fine-sounding words to justify existing practices. The real work was done by habits which were so fixed as to be institutional. The lesson for progressive education is that it requires, in an urgent degree, a degree more pressing than was incumbent upon former innovators, a philosophy of education based on a philosophy of experience” (John Dewey in Kolb & Kolb, 2017, p. 7).

Alice and David Kolb (2017) suggested experiential learning places the subject matter in the center and should be experienced by both the educator and the learner (see Figure 2.6); "all participants receive information through concrete experience of the subject matter and transform

it through reflection and conceptualizing and then transform it again by acting to change the world including what information is attended to in the new experience" (p. 16).

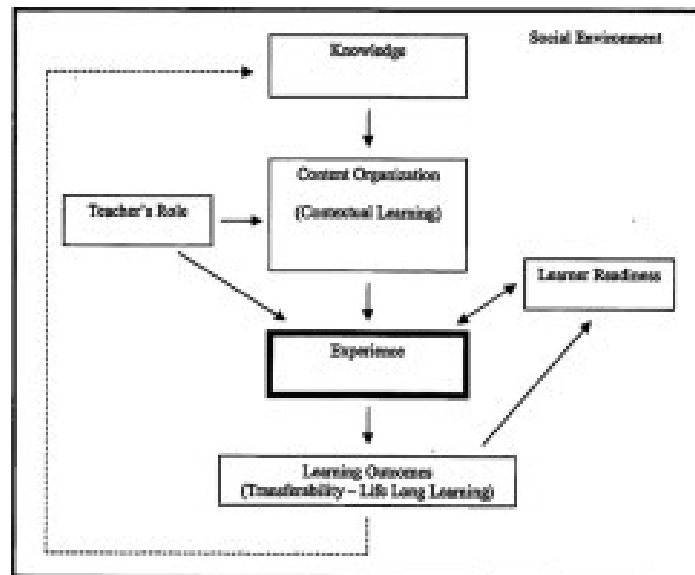


**Figure 2.6:** Subject Matter, Educator, and Learner Relationships in the Discourse and Experiential Learning Models (Kolb & Kolb, 2017, p. 16)

Experiential learning theory, described in detail in *Experiential Learning: Experience as the Source of Learning and Development* (Kolb 1984), is built on six propositions:

1. Learning is best conceived as a process, not in terms of outcomes.
2. All learning is relearning.
3. Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world.
4. Learning is a holistic process of adaptation to the world.
5. Learning results from synergetic transactions between the person and the environment.
6. Learning is the process of creating knowledge (Kolb & Kolb, 2005, p. 2).

The work of Alice and David Kolb is based mainly on the work of John Dewey. Dewey taught, "the principle that development of experience comes about through interaction means that education is essentially a social process" (Dewey, 1938, p.58). Commenting on Dewey's work, Roberts (2003) suggested that there should be careful planning to ensure social relationships in education. Roberts (2003) developed a model to facilitate understanding of the concepts of Dewey's philosophy of experiential learning (see Figure 2.7).



**Figure 2.7:** *A Conceptual Model of Dewey's Philosophy of Experiential Education (Roberts, 2003, p. 3)*

Kolb's learning theory provides a theoretical argument of independent learning, learning by doing, work-based learning, and problem-based learning. The approach has a vast range of applications, including helping students realize themselves, assisting teachers to become reflexive teachers, identifying students' learning styles, and developing key teachers' skills. It also helps develop group project work and decide how information and communication technologies can aid the process of learning (Sharlanova, 2004). Boreham (1987) suggested, "the concept of experiential learning really means learning by reflection on the experience" (p. 2).

Without reflection on experience, students are in danger of continuing to make the same mistakes over and over again (Sharlanova, 2004).

### ***2.4.3 Situated Learning***

Mattar (2018) emphasized the importance of context and interaction during knowledge construction. Additionally, Brown, Collins, and Duguid (1989) suggested that knowledge, learning, and cognition are fundamentally situated in activity, context, culture, and situations. Regarding learning via apprenticeship, on-the-job training, and education typical in culinary arts training, "learning involve[s] participation in the sense that there [is] a curriculum to be engaged, tasks to be completed and knowledge to be acquired often, though not exclusively, through interaction with others" (Kirk & Kinchin, 2003, p. 223). Kearlsy (2011) defined situated learning as a function of activity, context, and culture in which it occurs.

### ***2.4.4 Transactional Distance Theory***

While education in which the teacher and the learner are at different locations began in the United States in the late nineteenth century, "The establishment of the British Open University in the United Kingdom in 1969 marked the beginning of the use of technology to supplement print-based instruction through well-designed courses" (McIsaac & Gunawardena, 2001). The first attempt to define distance education and to articulate a theory appeared in 1972. This was called the theory of transactional distance. What was stated in that first theory is that "distance education is not simply a geographic separation of learners and teachers, but, more importantly, is a pedagogical concept. It is a concept describing the universe of teacher-learner relationships that exist when learners and instructors are separated by space and by time" (Moore, 1997, p. 22).

The concept of transaction is derived from John Dewey (Dewey & Bentley, 1949). Boyd and Apps (1980) explained that it “connotes the interplay among the environment, the individuals and the patterns of behaviors in a situation” (p. 5). "The transaction that we call distance education occurs between teachers and learners in an environment having the special characteristic of separation of teachers from learners. This separation leads to special patterns of learner and teacher behaviors. It is the separation of learners and teachers that profoundly affects both teaching and learning. With separation, there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of the instructor and those of the learner. It is this psychological and communications space that is the transactional distance" (Moore, 1997, p. 22).

Moore (1997) continued, describing the importance of dialogue and communication between teacher and learner:

“A dialogue is purposeful, constructive and valued by each party... It is obvious that the nature of each communications medium has a direct impact on the extent and quality of dialogue between instructors and learners. For example, an educational program in which communication between teacher and learner is solely by one-way television, an audiotape, or a teach-yourself book, will have no teacher-learner dialogue simply because these media cannot carry messages back from the learner to the teacher. Students usually make internal responses to what is communicated on the one-way medium, but they are not able to make their personal individual responses to the teacher. By comparison, a student taught by correspondence through the mail is able to have two-way interaction and therefore dialogue with the teacher, though the medium slows down the interaction. The dialogue is less spontaneous but perhaps more thoughtful and

reflective than ' a similar course taught in either a classroom or at a computer-mediated conference. It should be apparent that this interactive nature of the medium of communication is a major determinant of dialogue in the teaching-learning environment. By manipulating the communications media, it is possible to increase dialogue between learners and their teachers, and thus reduce the transactional distance” (p. 23).

Moore (1997) further suggested that "highly interactive electronic teleconference media, especially personal computers and audioconference media, permit a more intensive, more personal, more individual, more dynamic dialogue than can be achieved in using a recorded medium. Programs that use such media are therefore likely to bridge the sectional distance more effectively than programs using recorded media" (p. 23). Other factors influence good communication and thus transactional distance. These include:

- the number of students each distant teacher must provide instruction to
- the frequency of opportunity for communication, usually determined by administrative and financial constraints
- the physical environment in which the students learn
- the physical environment in which teachers teach
- the emotional environment of teachers, especially the regard, or, more likely, the degree of disregard given to their distance teaching achievements by their administrators
- the emotional environment of learners, especially the regard with which their study is seen by significant persons in their home and workplaces (Moore, 1997, p. 23).

Moore (1997) proposed the elements in course design are essential variables that determine transactional distance. "Programs are structured in different ways to take into account

the need to produce, copy, deliver, and control these mediated messages. Structure expresses the rigidity or flexibility of the program's educational objectives, teaching strategies, and evaluation methods. It describes the extent to which an education program can accommodate or be responsive to each learner's individual needs" (p. 24). The following are some of the processes Moore (1997) suggested must be structured in each distance education program:

1. *Presentation.* In most programs there are presentations of information, demonstrations of skills, or models of attitudes and values.
2. *Support of the learner's motivation.* Having planned or been given a curriculum, a program of content to be taught, course designers and instructors must stimulate, or at least maintain, the student's interest in what is to be taught, to motivate the student to learn, to enhance and maintain the learner's interest, including self-motivation.
3. *Stimulate analysis and criticism.* These are higher-order cognitive skills with associated attitudes and values that learners are expected to develop in higher education. Structuring the development of such skills and attitudes at a distance is especially demanding.
4. *Give advice and counsel.* The instructional program must guide the use of learning materials on techniques for their study and some form of reference for individuals who need help with developing study skills and dealing with study problems.
5. *Arrange practice, application, testing, and evaluation.* The students must be allowed to apply what is being learned, either through the practice of skills demonstrated or manipulation of information and ideas presented.
6. *Arrange for student creation of knowledge.* The opportunity for students to engage in sufficient dialogue to share with teachers in creating knowledge has been denied to

distance learners until recently. This essential process promises to be the personal computer's main contribution to distance education (p. 25).

## **2.5 Regular and Substantive Interaction**

“Transactional distance is relative and different for each person... Interaction and collaborative involvement lessens the psychological distance for students at remote learning sites” (Rovai, 2000, p. 289). According to Protopsaltis and Baum (2019), “Transactional Distance posits that interaction is critical as it minimizes the pedagogical distance between students and instructors” (p. 181). To further minimize pedagogical distance, the rules for federal financial aid eligibility requires that distance learning courses include regular and substantive interaction between instructors and students (Simonson, 2015). In reality, “distance-education courses [should] meet the same quality standards as face-to-face courses” (Johnson, Mejia, & Cook, 2015, p. 11). Protopsaltis and Baum (2019) suggested:

Learning is an active, dynamic process, and... social isolation is a risk factor associated with higher dropout rates. Instructor presence is integral for achieving interpersonal interaction and activities that emulate those of a “real person.” Personal interaction increases student satisfaction, and by extension, motivation to learn and succeed (p. 181).

### **2.5.1 Statutory Regulation**

The U.S. Department of Education requires that all online courses for which students may use Title IV funds (federal financial aid) include regular and substantive interaction between students and instructors (SUNY Empire State College, 2021). According to 34 CFR § 600.2:

*Distance education:* (1) Education that uses one or more of the technologies listed in paragraphs (2)(i) through (iv) of this definition to deliver instruction to students who are separated from the instructor or instructors and to support regular and substantive

interaction between the students and the instructor or instructors, either synchronously or asynchronously.

(2) The technologies that may be used to offer distance education include—

- (i) The internet;
- (ii) One-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices;
- (iii) Audio conference; or
- (iv) Other media used in a course in conjunction with any of the technologies listed in paragraphs (2)(i) through (iii) of this definition.

(3) For purposes of this definition, an instructor is an individual responsible for delivering course content and who meets the qualifications for instruction established by an institution's accrediting agency.

(4) For purposes of this definition, substantive interaction is engaging students in teaching, learning, and assessment, consistent with the content under discussion, and also includes at least two of the following—

- (i) Providing direct instruction;
- (ii) Assessing or providing feedback on a student's coursework;
- (iii) Providing information or responding to questions about the content of a course or competency;
- (iv) Facilitating a group discussion regarding the content of a course or competency; or

(v) Other instructional activities approved by the institution's or program's accrediting agency.

(5) An institution ensures regular interaction between a student and an instructor or instructors by, prior to the student's completion of a course or competency—

(i) Providing the opportunity for substantive interactions with the student on a predictable and scheduled basis commensurate with the length of time and the amount of content in the course or competency; and

(ii) Monitoring the student's academic engagement and success and ensuring that an instructor is responsible for promptly and proactively engaging in substantive interaction with the student when needed on the basis of such monitoring, or upon request by the student. (U.S. Department of Education, 2020)

“Distance education uses technology to deliver instruction to students who are separated from the trainer and to support regular and substantive interaction between the students and thus the instructors. The instruction is often delivered synchronously or asynchronously” (Koi-Akrofi, Owusu-Oware, & Tanye, 2020, p. 29). Distance education includes regular and substantive interaction (see Figure 2.8). “The recorded lectures on their own are not considered to be RSI, but if the recorded lectures are followed by the discussion forums on the topics and issues raised in the videos, that would make them RSI. Auto-graded quizzes do not provide the opportunity for interactions and personalized feedback. If the instructor follows up with the extensive summary of the most common mistakes on the quizzes and provides additional instructional support and ways for students to reach out with questions, this will move these quizzes closer to the RSI” (SUNY Empire State College, 2021).



*Figure 2.8: Comparison of the defining elements of Correspondence Education versus Distance Education (SUNY Empire State College, 2021)*

### 2.5.2 Interaction

Mabrito (2004) asserted that students are most successful in online courses that provide ample opportunities for them to interact with the instructor, other students, and the course content. Woo and Reeves (2008) suggested, “One of the key components of good teaching and learning, online or otherwise, is interaction. It has been argued that success or failure of online learning depends on the level of interaction that occurs” (p. 180).

The interaction between a student and an instructor is an integral part of the educational process (Driscoll, et al., 2012; Picciano, 2002; Simonson, 2015; Toppo, 2018; Tu and Corry, 2003). “The tone of the interaction should be supportive and encouraging so students feel motivated to apply themselves. The type of interaction should be both penetrating and expansive. Students often need to think more deeply, consider alternative points of view, and gather more knowledge on a topic” (Protopsaltis & Baum, 2019, p. 18).

Martin et al., (2019) argued, “If you don’t engage your students, they are not going to learn... Instructors have to engage students and focus on interactivity within their teaching where they can foster student-to-student interaction as well as instructor-to-student interaction” (p. 190). Woo and Reeves (2008) submitted, “Meaningful interaction that actually contributes to student growth and learning does not occur by itself. It requires careful planning on the part of the instructor and the implementation of multiple strategies for improving the interaction” (p. 183). Interaction should take many forms: between students and faculty, among students themselves, and between students and the online course material (Johnson, Mejia, & Cook, 2015).

### ***2.5.3 Regular Interaction***

The United States Department of Education defined regular interaction as faculty substantively interacting with students on a “predictable and scheduled basis and to monitor each student's engagement and success and follow up with the student as needed” (p. 54759). Mabrito (2004) indicated that the instructor should not only be available to students when they make contact; he or she should also initiate regular, ongoing communication with students as a group and individually. Such communication can help students stay focused and manage their time more productively in the course.

### ***2.5.4 Substantive Interaction***

Interaction between instructor and student should originate from the instructor and be predictable, on a scheduled basis, provide direct instruction, assess or provide feedback on a student’s coursework, respond to questions about course content, or include other instructional activities (Tarnow, Przypyszny, Irani, & Pheasant, 2021). Interaction in an online classroom can be fostered through a number of devices, including discussion boards, chat rooms, course

announcements, online blogs, and standard e-mail (Driscoll et al., 2012, p. 316). To be specific, the U.S. Department of Education (2020) identified “several different types of interaction that can fulfill the requirements for substantive interaction, including direct instruction, assessment, responding to questions about the course materials, facilitating a group discussion regarding the course content, or other instructional activities approved by the institution's accrediting agency” (p. 54758). Similarly, Henshaw, Edwards, and Bagley (2011) stated:

“Direct, substantive interaction refers to instructors’ observable behaviors where they engaged with students during small-group activities. Comments or questions posed by the instructor while circulating throughout the classroom as well as cases in which an instructor temporarily joins a small-group discussion in progress would count as instances of substantive interaction; however, cases in which an instructor simply distributes an in-class worksheet to a small group or merely circulates throughout the classroom would not be viewed as substantive interactions” (p. 2).

### ***2.5.5 Instructor-Led Interaction***

Protopsaltis and Baum (2019) cautioned students clearly demand a more interactive educational experience, which includes regular and direct contact and communication with instructors, easy access to instructors, real-time class sessions, and other synchronous interactions such as virtual office hours and meetings, instructor-led learning, and a sense of community through engagement with peers and instructors. “Instructors should keep the discussion on track throughout the course. The failure to guide discussions can result in less student learning, poor performance on other course elements, and risks a downward spiral of frustration” (Baker, 2011, p. 408). Gurley (2018) proposed that course quality is influenced by teaching presence. They further argued, “Effective design and organization of blended and online

courses requires educators to thoughtfully and intentionally select course content, design learning activities, design evaluation activities, and establish a course calendar that is congruent with blended and online course delivery. Effectively directing instruction during blended and online courses requires educators to constantly evaluate student achievement of learning outcomes and provide timely instructional feedback” (p. 198).

#### ***2.5.6 Opposing Views***

“Some instructors feel that once they design their course and place it online their job is mostly done, that the community of learners will take care of itself and thrive, and learning will occur. What is likely to happen in such situations is that sense of community will wither away unless the community is nurtured and support is provided in the form of heightened awareness of social presence” (Rovai, 2000, p. 290). According to Driscoll et al., (2012), many of the doubts about distance learning center on concerns that “online classrooms cannot fully replicate the interaction that occurs within the F2F classroom, which is vital to the learning process. Students learn far more in courses than direct content, and in an online environment they do not have the same opportunities for spontaneous, open discussion with their instructors and peers” (p. 314). They also theorized “If online courses are inherently lacking in their ability to provide interaction... this lack of F2F interaction can also create impressions of isolation and alienation among students” (p. 315).

Woo and Reeves (2008) summarized some of the problems with distance learning environments; they stated:

“These environments do not support such interactions in the same way that it occurs in face-to-face (i.e., time delay, lack of complete sensory contact, non-availability of off-task activities, etc.). The proximate result is often disgruntled or disappointed students

and instructors, motivation that is quickly extinguished, poorly used environments, wasted time and money, and showcase environments that are often not much more than computer assisted page turning. The ultimate result is very similar to the first problem—no learning, because the students tend to give up” (p. 182).

### ***2.5.7 Regular and Substantive Interaction Examples***

The list of examples of instructor-led, regular and substantive interaction includes, but is not limited to:

- individualized emails, instructor-facilitated discussions, scheduled virtual office hours, personalized feedback on assignments, weekly course announcements written specifically for the course, weekly summaries or highlights of discussion posts, regularly scheduled online review or help sessions, announcements previewing or reviewing difficult content, emails previewing concepts introduced in the next unit, and listing questions for students to have in mind when reading the textbook chapters (Baker, 2011, p. 408)
- online students must have the same number of weekly instructor contact hours as students in traditional classes. Direct faculty response to student emails or discussion board posts within 24 to 48 hours.
- message boards, discussion groups, blogs, chat rooms, and even video conferencing software like Skype as important tools for students to connect with each other. (Johnson, Mejia, & Cook, 2015, p. 12)
- Discussion board posting directions:
  - The instructor will start each discussion by posting one or more questions at the beginning of each week (Sunday or Monday). The discussion will continue until the following Sunday night, at which time the discussion board will close for that week.

- Please focus on the questions posted. But do bring in related thoughts and material, other readings, or questions that occur to you from the ongoing discussion.
- You are expected to post at least two substantive messages for each discussion question. Your postings should reflect an understanding of the course material.
- Your postings should advance the group's negotiation of ideas and meanings about the material; that is, your contributions should go beyond a "ditto." Some ways you can further the discussion include:
  - expressing opinions or observations. These should be offered in depth and supported by more than personal opinion;
  - making a connection between the current discussion and previous discussions, a personal experience, or concepts from the readings;
  - commenting on or asking for clarification of another student's statement;
  - synthesizing other students' responses; or
  - posing a substantive question aimed at furthering the group's understanding.
- Postings should be evenly distributed during the discussion period (not concentrated all on one day or at the beginning and/or end of the period).
- Postings should be a minimum of one short paragraph and a maximum of two paragraphs.
- Avoid postings that are limited to "I agree" or "great idea," etc. If you agree (or disagree) with a posting then say why you agree by supporting your statement with concepts from the readings or by bringing in a related example or experience

- Address the questions as much as possible (don't let the discussion stray)
  - Try to use quotes from the articles that support your postings. Include page numbers when you do that
  - Build on others' responses to create threads
  - Bring in related prior knowledge (work experience, prior coursework, readings, etc.)
  - Use proper etiquette (proper language, typing, etc.) (Anderson, 2008) p. 353-354
- create an online space for introductions; adding a face and personality to the instructor (and to the students, (Hege, 2010) p. 318
  - regularly scheduled virtual office hours, which could be held in any number of forums. For example, students and the instructor could utilize live chat programs to raise and address questions and concerns in real time. Finally, regularly emailed updates on each student's performance help to maintain a more personal connection with each student while also providing them with valuable feedback on their progress in the course. (Hege, 2010) p. 318

## **2.6 Online Education**

Koohang and Harman (2005) stated that e-learning is the delivery of educational information through electronic media. Koohang (2004) suggested that good instructional design that considers learning theories is important to successful online learning. Another aspect of successful online learning is online learner participation (Edelson, Pea, & Gomez, 1996; Alavi & Dufner, 2004). Potosky (2002) suggested that today's faculty respond to tech-savvy students' expectations to use internet technology as a tool for instruction. Gold (2001) posited the

opportunities afforded universities to partner with private companies that develop and deliver online training. Potosky (2002) observed that creating online content and learning objectives is primarily subject to the instructor's discretion, experience, and imagination.

In the past, suggested Varonis (2014), higher education was "typically restricted to middle and upper-class students, whose families had the resources to see them through school" (p. 304). The typical student would attend college immediately after high school, live on campus, attend full time, not work, and graduate in four years. Now, in many colleges and universities across the United States, traditional face-to-face classes are being redesigned for online delivery (Turbill, 2002; Kim & Bonk, 2006; Keengwe & Kidd, 2010; Nfor, 2015; Ozogul, 2018) to make these classes and degree programs more accessible to students (Varonis, 2014; Kryczka, 2014; Alumu & Thiagarajan, 2016). According to Keegnwe and Kidd (2010), this growth in online education has increased many college and university instructors being asked to consider teaching partially or fully online. Nfor (2015) reported that higher education has increasingly abandoned synchronous face-to-face courses and is migrating to instruction that relies on technology to deliver course content asynchronously online. Hoffman (2012) posited that online higher education is expected to continue to be one of the fastest-growing educational markets in America for the foreseeable future.

Nguyen (2015) defined online learning as a form of distance education. Others defined online learning as "the use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience" (Glancy & Isenberg, 2013; Martin, Budhrani, Mukar, & Ritzhaupt, 2019). Popescu (2012) defined online learning, or electronic learning (e-learning), as an evolving, dynamic, and rapidly

changing educational opportunity that produces an advanced information technology environment. Kryczka (2014) observed that students taking online courses are becoming a more significant segment of the overall student population.

Allen and Seaman (2014) reported on the growth of online education; they indicated:

“In 2002, 1.6 million students enrolled in higher education in the United States took at least one online course. By 2012, that number had grown to over 7.1 million students. Enrollments in online courses during the fall 2012 represented an increase of 6.1% over the number reported in 2011. Data show that the compound annual growth rate of online students reached 16.1% between 2002 and 2012, while the compound annual growth of the overall higher education student population for that same period was just 2.5%. The number of students in 2002 taking at least one online course was 1,602,970; by 2012, that number had grown to 7,126,549. In comparison, the overall student population in 2002 was 16,611,710; in 2011 it was 21,253,086” (p. 15).

Ralston-Berg and Nath (2008) suggest universities favor online courses to attract students who do not attend face-to-face courses who expect to learn and study any place and at any time. Nguyen (2015) propose several benefits of online education; among them are "effectiveness in educating students, its use as professional development, its cost-effectiveness to combat the rising cost of postsecondary education, credit equivalency at the postsecondary level, and the possibility of providing a world-class education to anyone with a broadband connection" (p. 310).

Veletsianos (2016) defined emerging technologies as "tools, concepts, innovations, and advancement" and used this definition to discuss the technologies needed in online education. Keengwe and Kidd (2010) refer to a full range of computer-based learning platforms and

delivery methods needed in online education. Ross and Collier (2016) made specific recommendations for technologies to consider using in online learning; among them were online journals and social media (such as Facebook, Twitter, and YouTube) and the need to rethink how knowledge is created and shared. Nfor (2015) suggested the use of social media, wikis, blogs, and other modern technological tools as well as the need for students to have the abilities to process and connect information; he also suggests the use of mobile phones, tablets, laptops, and any other device that connects to the internet and gives students access to content through handheld devices.

Badrul Khan (2001) examined the critical dimensions necessary for quality learning online and found eight primary categories: institutional, management, technological, pedagogical, ethical, interface design, resource support, and evaluation. Each dimension, presented in Table 2.1, is integral to a systems approach for evaluating the quality of online education.

**Table 2.1:** Khan's Eight Dimensions of E-Learning Framework (2001)

<b>Table 2.1: Dimensions of E-Learning</b>	<b>Descriptions</b>
Institutional	The institutional dimension is concerned with <i>administrative affairs, academic affairs, and student services</i> related to e-learning.
Management	The management of e-learning refers to the <i>maintenance of learning environment and distribution of information</i> .
Technological	The technological dimension of the E-Learning Framework examines issues of technology infrastructure in e-learning environments. This includes <i>infrastructure planning, hardware, and software</i> .
Pedagogical	The pedagogical dimension of E-learning refers to teaching and learning. This dimension addresses issues concerning <i>content analysis, audience analysis, goal analysis, media analysis, design approach, organization, and methods and strategies</i> of e-learning environments.

**Table 2.1 (cont.)**

Ethical	The ethical considerations of e-learning relate to <i>social and political influence, cultural diversity, bias, geographical diversity, learner diversity, information accessibility, etiquette, and the legal issues.</i>
Interface Design	The interface design refers to the overall look and feel of e-learning programs. Interface design dimension encompasses <i>page and site design, content design, navigation, and usability testing.</i>
Resource Support	The resource support dimension of the E-Learning Framework examines the <i>online support and resources</i> required to foster meaningful learning environments.
Evaluation	The evaluation for e-learning includes both <i>assessment of learners and evaluation of the instruction and learning environment.</i>

(Khan, 2009)

## **2.7 Engagement in Online Learning**

Bradley (2011) suggested that student performance in online courses is not significantly different from face-to-face courses, despite the ongoing debate about online versus classroom learning effectiveness. According to Ozogul (2018), successful online learning depends on overcoming the most common design challenge in the online environment – how to engage the learner.

Downes (1998) foresaw the future of online learning as emphasizing community because "Education is a social activity, and that is why the picture of distance learning wherein each person studies from their own home, supported by a personal computer and desk videophone, is wrong. To be sure, there is room for home study, but people, and especially children, need community as well" (p. 12). Dringus (1999) asserted that when there were content questions about a course topic, students would initiate communication with their instructors; additionally, students might create discussion groups with peers to seek clarification on a course topic.

Keengwe and Kidd (2010) suggested that while the internet offers a viable alternative to the need for 'physical' space, the need for faculty involvement in online education remains a prevalent issue. Ross and Collier (2016) further encouraged faculty to work beyond learning management system constraints of where, how, and for how long learners participate in modules and learning experiences and focus instead on educating "students and faculty about the essential building blocks of the web and encourage them to take an active role in the construction of their own digital identity" (p. 21). Alqurashi (2016) posited that faculty and student engagement help each develop self-efficacy and confidence.

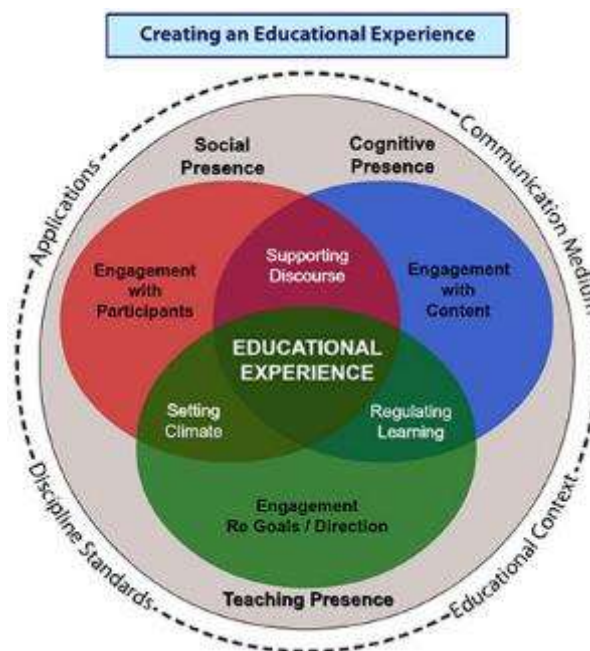
Cobb (2009) explored social presence, the degree to which a person is perceived as real in mediated communication, as a necessary concept of a quality online learning experience. Lakin (2005) identified social presence as a key to successful online collaboration and satisfaction with an online course. Short, Williams, and Christie (1976) define social presence as a construct comprising two concepts: intimacy and immediacy. Gunawardena and Zittle (1997) asserted that intimacy in a communication medium is influenced by "physical distance, eye contact, smiling, and personal topics of conversation" and immediacy as "a measure of psychological distance that a communicator puts between himself and the object of his communication" (p. 242).

Garrison (2007), referring to research on social, cognitive, and teaching presence in online community of inquiry, outlined four issues that have emerged:

1. shifting social presence from socio-emotional support to a focus on group cohesion (from personal to purposeful relationships)
2. progressive development of cognitive presence (inquiry) from exploration to resolution
3. how we conceive of teaching presence (design, facilitation, direct instruction)

4. the methodological issue concerns qualitative transcript analysis and the validity of the coding protocol.

Ice, Nagel, and Lynette (2010) stated that "while interactions between participants are necessary in virtual learning environments, interactions by themselves are not sufficient to ensure effective online learning. These types of interactions need to have clearly defined parameters and be focused toward a specific direction, hence the need for teaching presence" (p. 8). Garrison, Anderson, and Archer (2000) developed a comprehensive framework as an online learning research tool (see Figure 2.9). The framework consisted of three elements—social, teaching, and cognitive presence—and categories and indicators to define each of the presences and guide the coding of transcripts.



*Figure 2.9: Creating an Educational Experience (Garrison, Anderson, & Archer, 2000, p. 88)*

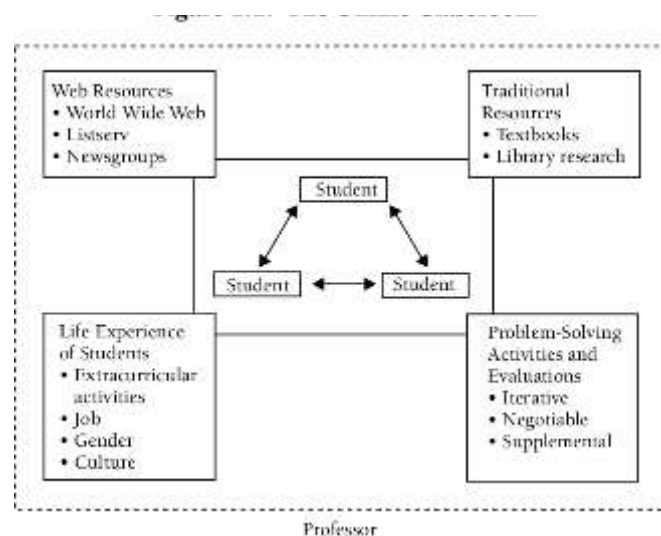
## 2.8 Online Course Design

Teo and Williams (2005) argued that the goal for instructors is to ensure learners have meaningful and memorable learning experiences while also achieving the desired course learning

outcomes. Teo and Williams (2005) stated that online learning could no longer be regarded as a fad. Knowlton (2000) suggested that an online course should be student-centered if the purpose is student learning. He went on to state:

“... a teacher-centered online classroom is an oxymoron in that it removes the need for the professor. In the online classroom, "lectures"—the very essence of teacher-centeredness—come in the form of predesigned text. This text may be predesigned written tutorials or emailed lectures, but in both cases, the teacher-centered aspects of a course manifest themselves as text. If these lectures are the means for filling students with knowledge and if these texts are the "center" of the course, what role does the professor play? The student is forming a relationship with the text, not with the individual professor. These texts do not necessarily have to be designed by professors; they could just as easily be designed by instructional designers or—worse—by textbook companies” (Knowlton, 2000, p. 9).

Therefore, Knowlton (2000) further suggested students should be the center of the classroom model. Student collaboration is essential to promote learning (see Figure 2.10).



**Figure 2.10:** *The Student-Centered Course Design (Knowlton, 2000, p. 12).*

"[The online classroom] develops a life of its own based on the course content, student personalities, and the professor's ability to monitor and guide the course and make adjustments based on students' needs, interests, and goals. Although students determine the direction of a course through their active engagement with course materials, professors must react to the direction that students provide" (Knowlton, 2000, p. 11).

Chin and Williams (2006) proposed specific learning needs and achievable objectives are essential components of meaningful learning experiences, provide learning satisfaction and motivation, and help students take responsibility for their own learning. Online education, especially the use of technology in learning, as suggested by Turbill (2002), can increase the quality of teaching and learning. It is no wonder, then, that Kim and Bon (2006) asserted how online learning could develop student collaboration and evaluation skills and observed that a growing number of postsecondary institutions are focusing on the use of the internet for collaboration, critical thinking, and enhanced student engagement.

When considering whether or not a face-to-face course can be converted to online course delivery, Sincalir (2009) asked, "Can I put this offline course online?" Chin and Williams (2006) suggest various instructional strategies to bring a textual outline of concepts and theories to life, including graphics, animation, and simulated scenarios. However, according to Downes (1998), technology should not drive content. Dringus (1999) suggested that instructors should design online courses considering that the main drivers of content are efficiency, organization, management, scheduling, and time demands of course delivery.

Martin et al. (2019) described five roles assumed by online instructors: Facilitator, Course Designer, Content Manager, Subject Matter Expert, and Mentor. Barr and Miller (2013)

suggested faculty should ensure daily communication and provide timely feedback. Nash (2015) suggested setting high expectations, embracing cultural diversities, and provide specificity in rubrics that should be given in advance. It is recognizing the importance of learners and their capabilities, according to Gillett and Swan (2017), that instructors should direct their focus rather than specific technologies to employ in their course design.

Describing online learners, Ralston-Berg and Nath (2008) indicated learners want access to information on time and without difficulty; students also want to receive feedback in a short time. Learners seek ways to learn at their own pace of learning and in ways appropriate to their own learning styles (Ralston-Berg & Nath, 2008). Ross and Collier (2016) found that "learners preferred videos that included the instructor's face, indicating that the face increased the perceived value of the videos" (p. 23).

When designing an online course, instructors should make their expectations for asynchronous access and discussion clear, having students sign a "netiquette agreement" (McGuire, 2016). Expectations, discussion topics, and grading rubrics should encourage sharing personal experiences and support social presence (Swan & Shih, 2005).

According to Varonis (2014), best practices do NOT include uploading slide presentations used in a face-to-face course in an online course as it becomes "death by PowerPoint." Turbill (2002) outlined elements of effective face-to-face teaching designed to build knowledge and should be considered in online course design; among them:

- "Time for reflection, both written and spoken
- Time for sharing classroom experiences and responses to readings with peers
- Opportunities for collaborative learning in small groups
- Opportunities to try new classroom instructional strategies

- Input (new knowledge) through a variety of media
- Readings that support and extend the various concepts introduced in the courses
- Opportunities to work as co-learners" (p. 4)

Oliver and Herrington (2011) provided "a possible means for classifying and comparing online learning materials by suggesting four main categories and applications" (see Table 2.2).

Form	Description of Materials
<b>Information Access</b>	convey information alone to the learner, for example, a course syllabus, a calendar, assignment descriptions, lecture notes, workshop descriptions etc.
<b>Interactive Learning</b>	involve instructional elements that engage the learner, encourage reflection and decision making and provide feedback in response to learner actions
<b>Networked Learning</b>	provide a means for the organisation, communication and exchange of ideas and information among learners and teachers and other parties in the learning process
<b>Materials Development</b>	when the online setting is used as a means for learners to create and publish materials. For example' learners publishing Web pages, stories etc.

*Table 2.2: Instructional forms of online learning materials (Oliver & Herrington, 2011, p. 2)*

Collis (1997), in providing a framework for describing an online learning environment, suggested that learning environments are comprised of various components or events (see Table 2.3).

Components	Description
<b>general</b>	enrolling, reading the syllabus, reading course material
<b>lectures</b>	attending lectures and presentations
<b>group discussions</b>	participating in group discussions and seminar-style sessions
<b>learning events</b>	field trips, practical activities, guest lectures
<b>communication</b>	private communication between instructors and classmates
<b>self-study</b>	supervised practica, unsupervised reading and small assignments
<b>individual projects</b>	major course assignments
<b>group projects</b>	course assignment completed collaboratively
<b>testing</b>	assessment activities.

*Table 2.3: Components of Teaching and Learning Settings (Oliver & Herrington, 2011, p. 8)*

Additionally, Oliver and Herrington (2011) graphically defined the various elements within online settings that comprise the components of online learning settings and suggested that it is important to include these elements in effective constructivist design (see Figure 2.11).



**Figure 2.11:** *Constituent Elements of Online Learning Settings* (Oliver & Herrington, 2011, p. 20)

Kreie et al. (2017) detailed first meetings with students, setting expectations and providing basic technology instructions:

“The first meeting can be difficult since everyone is working through technical issues and getting used to the synchronous environment. Don't plan to cover much content during this meeting. Spend the time acclimating students to the online synchronous tool being used, including practice going into breakout sessions and returning to the main meeting session, with microphones muted” (p. 65).

Hawisher and Pemberton (1997) related the success of the online courses to the value instructors placed on discussion. Kreie et al. (2017) proposed synchronous interaction in an online course; such has been shown to "increase student success in terms of grade and satisfaction." Whether synchronous or asynchronous, Turbill (2002) indicated that requiring responses to each topic's readings in which students "were required to identify 'key points' for them and... discuss the implication these had for their professional context [while] responding to

each other's comments" (p. 678). Such computer-mediated communication, according to Thorpe (2008), must be specifically considered and included in the course design. Instructors should also consider structure (Romiszowski & Cheng, 1992), transparency (Eastmond, 1995), impact on students' satisfaction, learning, and retention in online courses (Swan, Shea, Fredericksen, Pickett, & Pelz, 2000). Also, Swan et al. (2000) remind online course designers to include instructor feedback, as "students learn through written correspondence with instructors." (p. 514)

Swan et al. (2000) indicate that the most successful online courses are well structured and easy to use. McGuire (2016) suggests a welcome video "in which the instructor speaks directly to the students" (p. 71). Power (2009) outlined design phases for effective design practice:

1. *Analysis* (student needs assessment, course & program requirements, faculty interests, etc.)
2. *Module-Building* (Web-based course-related resource material, e.g., readings, etc.)
3. *Teaching Activities Development* (in-class exercises)
4. *Learner Support Activities Development* (additional, individualized resources for purposes of formative evaluation)
5. *Evaluation Instruments Development* (various testing instruments for purposes of summative evaluation)
6. *Items for Ongoing Improvement* (the "wish list," e.g., course resources, etc. to be developed later)

Chin and Williams (2006) suggested that end-of-segment assignments and final projects should be designed to promote collaboration and should be assessed by the instructor "according to a set of generic and standardized grade description documents" (p. 19). According to Bradley (2011), the most frequently used assessments were exams, quizzes, and problem sets followed closely by

papers and essays. Rovai (2000) suggested proctoring assessments by telephone, chat rooms, email, or testing centers.

## **2.9 Culinary Arts Curriculum**

As an applied discipline, hospitality education has a close and robust linkage with its industry to educate hospitality students by keeping abreast with the current industry trends (Goodman & Sprague, 1991; Rahman, 2010). Maas (2010) observed that there are no regulatory requirements that one has a degree to enter the culinary profession; the only regulatory requirements relate to state-imposed health codes and alcohol laws which generally require workers in the foodservice industry to have food handlers' permits or, where required, alcohol training.

Duetsch (2014) indicated culinary arts "is a fiercely competitive field. Skills and knowledge along with culinary creativity become tools to differentiate, stay current and capture the market" (p. 10). Escoffier (1903) wrote, "Experience alone—the fruit of long practice—can teach the various devices which enable the skilled chef to obtain different results from the same kind and quality of material" (p. 23). Deutsch (2014) suggested that cooking isn't enough; schools need to create leaders and change agents.

“Most of these programs, consistent with Escoffier's outline—stocks, sauces, soups, moist heat cooking, dry heat cooking, combination techniques, followed by *garde manger*, baking, pastry, and beverages—would be familiar to any student of any Western professional culinary program. The pedagogy would also be familiar. First, consistent with Escoffier's *brigade de cuisine* and Angell and Roth's military student body, there is a strong emphasis on discipline and order. First, of course, there is education about the uniform, its history, and the need to keep it pristine. Students are taught the ultimate

authority of the chef, and apart from important safety commands like "Chaud" or "Hot behind," learn "Oui, chef!" or "Yes, chef!" as the response that a command has been heard. Consistent with the authority of the chef, teaching is done primarily by replication... I show you how to make an elegant salad topped with a seared scallop and a cardamom cracker. You repeat" (Deutsch, 2014, p. 5).

To meet the demands of needed chef competencies, Jotikasthira and Santithamsakul (2020) outlined specific areas in which culinary degree programs need to make adjustments and suggest the following be addressed:

1. International versus local languages
2. Business knowledge
3. Applied science knowledge
4. Human skill and leadership
5. Culture knowledge and cross-cultural competencies
6. Foreign language proficiency
7. Industrial placement as opportunities for knowledge and skill application and network establishment
8. Double degree as a value-added factor and a risk reduction tool (p. 53)

Wan et al. (2010) suggested, "the discipline of culinary arts... is often associated with food or a chef and it is a discipline that requires knowledge and skills of food sciences, food preparation, nutrition, aesthetics, cultures and the most essentially the cooking technique" (p. 77). Li et al. (2010) observed the natural solution for people to learn how to cook is the recipe while also conceding that cooking is not just about recipes. McGee (2004) argued:

“Many young cooks told me of their frustration in trying to find out *why* dishes were prepared a certain way or why ingredients behave as they do. To their traditionally trained chefs and teachers, understanding food was less important than mastering the tried and true techniques for preparing it. Today it's clearer that curiosity and understanding make their own contribution to mastery. A number of culinary schools now offer "experimental" courses that investigate the whys of cooking and encourage critical thinking” (p. 2).

Even basic cooking skills are hard to learn by simply reading recipes; visual tutorials, such as videos, can be more direct and easier to understand (Li, Hong, Zheng, Yan, & Chua, 2010). Zopiatis (2010) identified the primary objective of education is to provide high-quality individuals to the industry equipped with competencies relevant to their specific career choice. Jotikasthira and Santithamsakul (2020) proposed that higher education aims to prepare graduates for employment, providing them with the competency needed for success in their careers. Wesen (2019) suggested that learning outcomes represent the primary skills, competencies, and understandings that a program of study teaches students. Many individuals, drawn by the profession's core values, are pursuing culinary-related studies in their quest for a successful and long-term career (Zopiatis, Theodosiou, & Constanti, 2014).

VanLandingham (1995) observed that the traditional path to becoming a chef was either through many years of on-the-job training or receiving foodservice training while serving in the military; vocational education reform has given rise to culinary training through higher education. "Educational requirements to work in a restaurant will increase as the restaurant industry becomes more complex" (Hertzman, 2006, p. 2).

According to Pépin (2003), in the mid-20th century, apprentices received no pay: "We did not consider this treatment harsh. Previous generations of apprentices had to pay the owner of the hotel to be allowed to learn" (Pépin, 2003, p. 56). The transition to doing skilled work was long and slow; apprentices learned through observation, slowly undertaking increasingly complex tasks (Mitchell et al., 2013; Pépin, 2003; Wesen, 2019). Traditional culinary arts instruction follows a recipe-based model where the chef-instructor demonstrates the method followed by students diligently replicating the demonstration; the chef-instructor then provides feedback based on the outcome (Brown, Mao, & Chesser, 2013).

Zopiatis et al. (2014) implied that the first culinary programs aimed to enhance practical skills of production, individuals' abilities to utilize specialized equipment, and individuals' artistic competencies. Müller et al. (2009) argued that changing paradigms in the culinary industry change the curriculum of schools in the form of new competencies and experiential learning, enabling the industry to seek highly trained students to become the skilled cooks and chefs of the future.

A culinary arts program aims to develop competencies in planning menus, controlling food costs, developing hospitality leaders, and producing safe and healthy food (Cheng, Ogbeide, & Hamouz, 2011). With its roots in Escoffier's *Le Guide Culinaire*, Deutsch (2014) observed knife skills, stocks, soups, and sauces are integral parts of a culinary curriculum. However, instructors must realize that competency in skills, such as knife skills and cooking skills in culinary studies, is no longer sufficient for the survival of the industry (Müller et al., 2009; Eren, 2018). Therefore, the ongoing challenge for chef lecturers is to ensure that the full range of skills taught in classroom settings can be transferred to various workplace environments (Miles, 2007).

Various media (food television, social media, recorded video) have elevated culinary professionals to celebrity status and highlighted culinary education (De Solier, 2005; Eren, 2018; Johnston & Baumann, 2015). According to Miles (2007), the recent developments in flexible learning modes using e-learning and multimedia could overcome these distances by working with other forms of new technology such as digital teaching platforms like WebCT and Blackboard. Culinary schools, like other disciplines, are always looking for ways to stay current with trends and student offerings to maintain high-quality standards (Allen, 2017; Deutsch, 2018).

Despite predetermined university policies to conform to standards and content requirements (Meyer & Rowan, 1977; Harrington et al., 2005), culinary educators and chefs believed active learning in the form of hands-on culinary skills courses, required work experience, and industry internships are essential characteristics of a quality culinary arts education. (Ryll, 2017). Some of this training can be delivered by a chef instructor presenting applied skills lessons via synchronous or asynchronous video demonstrations and lectures (Miles, 2007; VanLandingham, 1995).

Gordon Ramsey shared his perspective about training to become a professional culinarian and the value of culinary school (see Video 2.1). In the video, Chef Ramsey advised students to plan on being “a sponge” for the first fourteen years of their careers and to avoid taking a job just because of money (0:28). He also counseled students to find desire and ambition (2:10). Chef Ramsey suggested students work in the industry while studying in school (2:35). Lastly, he advised students to learn to delegate, set high standards, develop individual taste perceptions (2:54), and things to consider when planning to open one’s own business (3:47).



*Video 2.1: Gordon Ramsay talks about the importance of culinary school (International Culinary Center, 2011)*

## **2.10 Online Culinary Arts Education**

According to Miles (2007), formal culinary training can be traced to the introduction of the master-apprentice model, which began in the Middle Ages. VanLandingham (1995) indicated that vocational education in the United States was "first recognized in 1925 as a legitimate form of education" (p. 3). Hu (2010) describes 'modern culinary education' as an effort to produce culinary artists and performers, able to use imagination, intuition, emotion, and technical skill to create pleasing food creations. Miles (2007) asked, "What is the future for culinary vocational education?... Do [modern] techniques and learning methods... have a place in the training kitchens of a modern vocational college?" (p. 266).

These questions suggest an opportunity to understand the present and future on distance delivery of culinary educational content "delivered by a chef lecturer presenting an applied skills lesson via a video link-up in real-time in the training kitchen of one college, while his or her students are applying and practicing these skills in another" (Miles, 2007, p. 268). Olmanson (2011) argued for an approach to distance education that strips itself of its correspondence-

course beginnings and collaboratively supports learners as they try to make meaning, have authentic interactions, and construct knowledge. To achieve this end, Coomey and Stephenson (2001) suggested that online learning designers consider learner control, support, and opportunities for interaction and engagement. Referring to faculty and student perceptions, Murphrey (2010) discussed open communication and incorporating varying instructional methods as key quality online course delivery indicators.

While educators, according to Thibedeaux (2012), grapple over educational design that combines the structured learning strategies of a university classroom with constructivist approaches that students utilize in commercial kitchens, Mollenkopf, Vu, Crow, and Black's (2017) study of student teachers found "no significant difference in student performance in [an] online programs... when compared to student performance in the face-to-face program" (p. 1). Writing specifically about culinary arts education, Woodhouse (2016) suggested that "the wheels of change may turn slowly for the culinary arts teaching community, [where] a paradigm shift in knowledge construction by culinary arts educators could redefine what it means to study and learn to 'be a chef.'"

The Escoffier Online Culinary School described its program as "a combination of reading, chef demonstration, practice, and feedback, just like an on-campus education... giv[ing] students greater flexibility, allowing them to complete their studies from the convenience of their own home (Escoffier, 2020). As described in Video 2.2, students can fit their classwork into their hectic schedules (Escoffier, 2020). Alan Momeyer mentioned the need for students to remain employed while attending culinary school (0:13), opening the door for online training (0:15). Escoffier Online Culinary School Director of Academics, Graham Mitchell, outlined the typical week students experience in the online program (0:31). Former Escoffier Online Culinary

School student, Joshua Hasho, described the value of the online experience from the perspective of a working professional (0:54). Lastly, another former Escoffier Online Culinary School student, Candy Wallace, defined her appreciation for the online program as an adult learner (1:24).



*Video 2.2: Online Staff Training with Auguste Escoffier School of Culinary Arts (EscoffierSchool, 2020)*

According to Larreamandy-Joerns and Leinhardt (2006), "Educators have at their disposal sets of tools in the form of the Internet and a science of learning and teaching that permits the alteration of the nature of instruction at the university level" (p.1). Ryll (2017) encouraged teachers to make greater use of new technological developments.

While college and university campuses are still relevant in higher education, technology has enabled higher learning institutions to rethink students' earning degrees (Gaytan, 2007; Ryll, 2017). Culinary arts online teaching and learning entails many new, and often very different, roles, duties, and obligations. The culinary arts online classroom challenges both the teacher and the student in new and different ways, and included in this challenge is a great deal of work (Bonvillian & Singer, 2013; Ryll, 2017). Ryll (2017) indicated that students expect high-quality course design while they may choose online courses out of convenience.

Many university programs do not have adequate facilities for teaching food classes (Canter et al., 2007), and purchasing and maintaining industrial cooking equipment and the expense of food and supplies can be cost-prohibitive. Researching alternative solutions to teach these skills to students while controlling costs is imperative. Utilizing a video series aimed at food preparation and culinary skills in addition to culinary classes may be one solution to this challenge (Canter et al., 2007; Schaeffer & Miller, 2012; Schaffer & Warren, 2013).

Technology should not be integrated into the classroom to use technology; it should enhance the instructional content objectives (Redmann & Kotrlik, 2004; Hora & Holden, 2012; Jackson et al., 2011; Schaffer & Warren, 2013). Instead, technology should assist students in understanding complex concepts, help students engage in learning, provide students with information and resources, and meet students' individual needs (Redmann & Kotrlik, 2004; Schaffer & Warren, 2013). Jackson et al. (2011) suggested students exposed to extensive visual input during childhood may have different expectations regarding learning; these students consider technology an enhancement or necessity as part of learning and prefer visual images to traditional learning styles.

Current methods of creating streaming video are no longer cost-prohibitive, time-consuming, or necessitating a professional videographer; the goal of the videos was to prevent the educator from repeating demonstrations, allowing educators to engage in more supportive work with their students (Shah et al., 1999; Glass, 2005; Schaeffer & Warren, 2013). The first culinary school to offer this type of instruction is the Escoffier Online Culinary School (see Video 2.3), which opened in 2012 by the Triumph Higher Education Group (Editorial Staff, 2012; Ryll, 2017). Narrated by Escoffier Online Culinary School instructor Luke Shaffer, the video highlighted how students are able to complete the same education as in-person student

while studying at home (0:11). He also discussed how a typical week looks for online students (0:22). Shaffer mentioned student assessment (0:45) and receiving feedback (0:53). Lastly, Shaffer detailed the need for actual industry experience by engaging in an externship (1:07).



*Video 2.3: Escoffier Online Culinary School student assignment, braiding bread (Escoffier, 2020)*

Designed to take two to four months, Escoffier Online focuses on the building blocks of cooking and includes core courses that cover culinary basics and essentials. Each course includes interactive learning modules, culminating with an assessment that provides for self-evaluation, recipe preparation, and one-on-one feedback and review with a chef instructor (Ryll, 2017).

Hsu and Chien (2015) conducted an experiment in a Taiwan high school. One hundred high school students were recruited and randomly assigned to experimental and control groups using multimedia web-based educational technologies and traditional educational methods. Two dishes (one basic and one advanced) were used as target content to learn and deliver. The findings indicated that the experimental group performed better on both dishes. The effect size validated the applicability of multimedia web-based technologies in culinary skills training.

Responses to open survey questions of the Hsu and Chien (2015) study contributed interesting perspectives into student perceptions of the online delivery of culinary instruction:

“I was not used to this kind of pedagogy. To be honest, I still cannot believe that culinary skills can be trained in this way. However, after this training program, I have to admit that it is quite convenient to me to review the contents...” (Hsu & Chien, 2015, p. 137).

“This innovative way of training in culinary skills was so intriguing and convenient. I would never think it would work, but I think it worked quite well for me.... The attribute that I like the most about this web-based multimedia way of training was the captions. I did not have to keep notes all the time in the learning process, so I could concentrate on the instructor's demonstration” (Hsu & Chien, 2015, p. 138).

Garçon & Guerrero (2020) suggested that the prevalence of mobile phones in our lives contributes to the normalization of certain cooking practices among millennials, such as bringing their mobile devices into the kitchen, deciding what to cook, obtaining the recipe to prepare it, and cooking. They further submit that there is an increasing trend among consumers to access YouTube for culinary inspiration, recipes, or tips on cooking techniques. Hsu and Chien (2015) posited that multimedia content delivery can facilitate the dissemination of knowledge efficiently and effectively.

The digital universe has been filled with all kinds of food content, from an enormous amount of food snapshots in social media, such as Facebook or Instagram, to the rise of food channels and "how-to" cooking videos (Garçon & Guerrero, 2020). More dynamic presentations of materials can be delivered through multimedia than via a text-based modality alone (Hsu & Chien, 2015; Lowe, 2003). It is time that hospitality educators get together and focus on a significant amount of energy on defining the role of information technology in the hospitality curriculum" (Hsu & Chien, 2015, p. 133).

## 2.11 Assessing Culinary Arts Students

Del Villar (2019) outlined culinary school learning outcomes as measuring technique, recipe analysis, handling kitchen tools, mise en place, safety and sanitation procedures, and time management; also, students should demonstrate the ability to prepare different foods using different cooking methods. While culinary school may have an element of fun (Deutsch, 2016), assessing culinary students can be a challenge. “Grading cooking labs is challenging mostly because you can’t see everything all at the same time, never mind write it down” (Graybill, 2019).

“The truth is, yes, it can be fun—but it can also be absolute hell. Unfortunately for me, the first few months of culinary school were the latter. On the first day of class, we made French Onion Soup. At the end of class, Chef tasted my finished soup.

Immediately, the color drained from his face. He asked me to try the soup while the entire class watched. Mortified, I realized that I'd forgotten to add salt—practically a capital offense in any professional kitchen” (Laseter, 2018).

Ruhlman (2015) stated, "We cook with our senses, and we have six of them, all of them critical, the sixth most of all. These five senses — taste, touch, hearing, sight, and smell — lead to the most important sense of all, common sense. This cannot be written into a recipe. You can't Google the common sense of Bolognese sauce. But it's critical in good cooking and often lacking in the home kitchen."

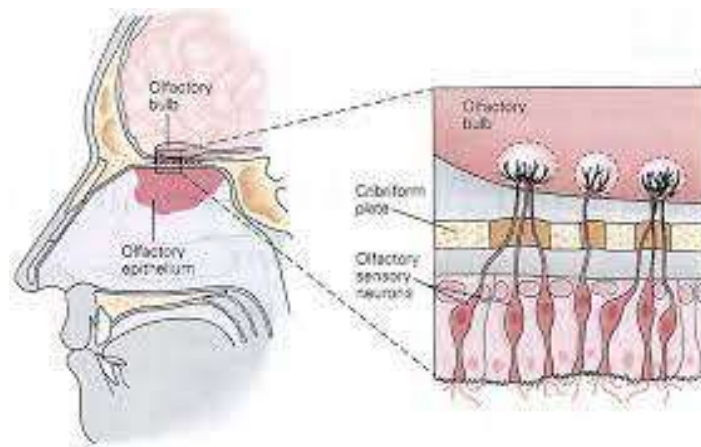
Group work in the kitchen laboratory includes the production of stocks, sauces, soups, dry and moist heat applications, vegetable and carbohydrate cookery, and desserts (Williams, 2008). Dirksen (2011) suggested that there are many techniques educators can use to assess student achievement and understanding. Angelo and Cross (1993) stated, "Classroom

Assessment is an approach designed to help teachers find out what students are learning in the classroom and how well they are learning it" (p. 4).

Williams (2008) described the final, practical exam as a summative assessment that requires students to demonstrate learning and understanding through critical thinking and application. He further defines the practical exam as:

“a summative assessment which measures student learning at the end of the culinary program. Upon completion of the exam, students receive verbal evaluations from judges as well as hard copies of their test results. The exam includes four judges, three being faculty and one local guest chef from industry. Faculty knows intended learning outcomes, while the guest chef evaluates according to industry standards and expectations” (p. 4).

Alex and Buck (2004) "discovered a large gene family, comprised of some 1,000 different genes (three percent of our genes) that give rise to an equivalent number of olfactory receptor types. These receptors are located on the olfactory receptor cells, which occupy a small area in the upper part of the nasal epithelium and detect the inhaled odorant molecules" (see Figure 2.12).



**Figure 2.12:** Olfactory sensory neurons are embedded in a small area of specialized epithelium in the dorsal posterior recess of the nasal cavity. (Buck, 2006)

Noble Laureate, Dr. Linda Buck (2006) reported wine tasters that can distinguish more than 100 different components of taste based on combinations of flavor and aroma. She further stated that "the multitude of different flavors that one can experience derives from a combination of gustatory, olfactory, and somatosensory components" (p. 646). She described the physiology of taste:

“The gustatory system distinguishes four basic stimulus qualities: bitter, salty, sour, and sweet. Monosodium glutamate may represent a fifth stimulus category, called *umami*. The molecular mechanisms by which taste stimuli are transduced have been explored in studies using a variety of experimental techniques, including electrophysiology, biochemistry, and molecular biology. These studies have shown that each type of taste stimulus is transduced by a different mechanism. In addition, two stimuli may elicit the same taste sensation by different mechanisms. Furthermore, the molecular mechanisms used by different vertebrate species to sense the same tastant may differ” (p. 638).

According to Fergusson (2011), "all kinds of people spend a good deal of time accounting for taste—describing the indescribable, measuring the immeasurable, generalizing the singular. The Latin adage *de gustibus non est disputandum* turns out to be dead wrong. Almost everyone argues about taste every day (*Über Geschmack lässt sich nicht streiten*), proof positive that no one has a singular taste (*chacun a son goût*) or regards all tastes as equivalent (*tutti gusti sono giusti*)" (p. 371).

Many factors affect an individual's perception of taste, including:

- Flavor is determined by the unified perceptual experience or "Gestalt" of food that arises from the integration of retronasal olfaction (i.e., signals deriving from the

retronasal smell through the oral cavity) with several peripherally distinct sensory inputs, including taste, texture, viscosity, temperature, sight, and even the sound of foods or oral nociception (pain) (Nettore et al., 2020).

- A decline in smell identification and gustatory function is common in the elderly due to a reduction in chemosensory perception, poor oral health, and changes in olfactory function (Nettore et al., 2020).
- Anatomical data also support the sex difference in taste recognition, with women having more fungiform papillae and more taste buds than men (Nettore et al., 2020).
- Variation in taste receptor genes can give rise to differential perception of sweet, umami, and bitter tastes, whereas less is known about sour and salty taste genetics. (Feeney, O'Brien, Scannell, Markey, & Gibney, 2011)
- The sensitivity of the taste buds for individual taste stimuli varies extensively and depends on the type of papillae and the part of the oral cavity in which they are located. (Kikut-Ligaj & Trzcielinska-Lorych, 2015)
- There are individual variations in the density of distribution and the number of somatosensory nerve endings in lingual taste buds in humans. This is the primary reason for variations in the perception of taste. (Kikut-Ligaj & Trzcielinska-Lorych, 2015)
- The rich flavors of our human diet are the sum of taste, olfaction, and trigeminal input; but, the synthesis of perception is the sum of peripheral input modulated by emotion, physiological and metabolic state, and learning (Gravina, Yep, & Khan, 2013).

Other factors affecting taste perception include:

- Age (Delilbasi et al., 2003)
- Alcohol Consumption (Silva, et al., 2016)
- Ancestry (Leong et al., 2018)
- Caffeine Consumption (Poole & Tordoff, 2017)
- Coffee Consumption (Fjaeldstad & Fernandes, 2020)
- Dietary Habits (Akal et al., 2003)
- Disease (Heckmann et al., 2003)
- Evolutionary Interactions (Hladik, 1993)
- Gender (Akal et al., 2003)
- General Health (Akal et al., 2003)
- Genetics (Feeney, O'Brien, Scannell, Markey, & Gibney, 2011)
- Perfume, Air Freshener (Sowndhararajan & Kim, 2016)
- Saliva Production (Akal et al., 2003)
- Smell (Djordjevic, Zatorre, & Jones-Gotman, 2004)
- Smoking (Akal et al., 2003)
- Stress (Nakagawa, Mizuma, & Inui, 1996)

Vachon (2021), writing for the Institute of Culinary Education's blog, stated "culinary school will teach you not only the foundational methods of cooking but also life lessons, from discipline to organization, problem-solving and time management." Culinary art, as defined by Harrington et al. (2005), is an integrated study of food science, food preparation, cooking skill, aesthetics, and diet culture. Ko and Chiu (2011) suggested the most important competencies for [culinary students] include knowledge of flavor, knowledge of food sanitation, ability to

distinguish the level of quality in food products, general communication skills, and ability to make decisions. While culinary education might include a study of flavor, each person's sense of flavor is like a snowflake or a fingerprint (Cook, 2015), making this a difficult concept to effectively teach.

## **2.12 Student & Faculty Perceptions of Online Learning**

According to Sinclair (2011), “there is an increasing need to understand factors that affect satisfaction with online learning and its impact on continued learning, retention, and student recruitment” (p. 20). Abuhassna and Yahaya (2018) indicated that rapid expansion and increasing availability of material and communication technologies have led to a growing number of students signing up for online education. The expansion and increasing availability of technology, according to Abuhassna and Yahaya (2018), has established a “learning background that is close to face-to-face... despite learners’ physical separation from the instructor and other learners” (p. 3048). They further point out that the effective and efficient use of technology “demonstrates that students want to use interactive tools to make their learning easier and more efficient and allow them to learn anywhere and at any time” (p. 3048).

In some cases, online instruction has proven to be even more effective than traditional instruction. Students, moreover, have communicated both satisfaction and dissatisfaction with online course delivery (Kim & Bonk, 2006; Lei & Gupta, 2010; Caruth & Caruth, 2013). Kim and Bonk (2006) point to student achievement and satisfaction as two means of assessing the quality of online education. Ross and Collier (2016) indicate that instructors perceive their own “cognitive, affective, and managerial roles” to be more complex in online environments and frequently have difficulty adjusting to teaching online.

However, according to Alsadoon (2018), instructors that can encourage social presence “give learners the feeling of existing with the instructor and other learners [and]... encourage learners to share information with others and learn better” (p. 227). Bozkaya and Aydin (2008) defined social presence as something that “improves interaction and interaction increases a feeling of social presence. In distance learning settings, the teacher’s immediacy behaviors, more importantly, affect learners’ perceptions of social presence and thus their satisfaction” (p. 1).

Yukselturk and Yildirim (2008) defined learner’s satisfaction as “a learner’s feelings about his or her interaction[s] with teachers, peers, the course,” and institutional support.

Additionally, Reio and Crim (2013) define social presence as “an individual’s perception of the quantity and quality of interpersonal communication in an online learning environment” p. 227). According to Alsadoon (2018), satisfied learners are more persistent and successful than their unsatisfied peers. Wiechowski and Washburn (2014) indicate learner satisfaction is a key factor in evaluating the success of any learning program.

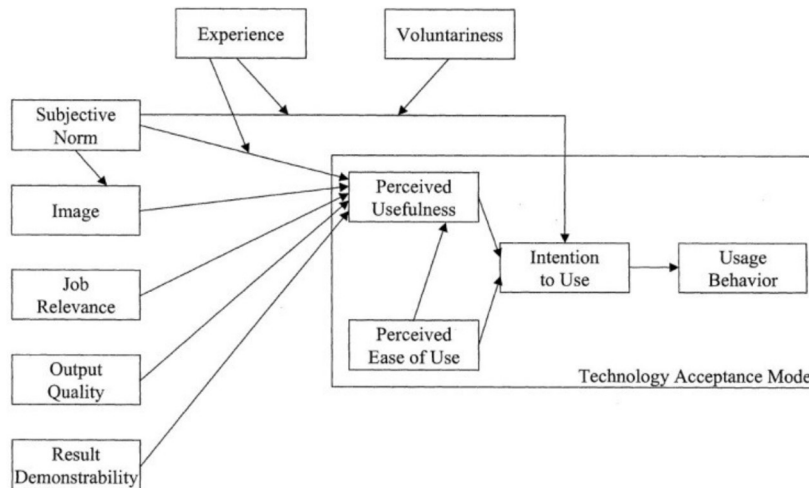
Moore (1997) summarized three forms of interaction in distance learning:

1. “Learner-content interaction: Students can get information from the course contents using this method. The contents may be in the form of text, video or audio, online communication, computer-aided programs or CD-ROM.
2. Learner-learner interaction: This kind of interaction is used to exchange ideas and information about the course that arises among students in the absence or presence of the teacher. This kind of interaction may appear in the form of group discussion, group projects, etc. It can promote learning via sharing of knowledge and student collaboration.

3. Learner-instructor interaction: This is related to the instructor and the learner's communication. It may appear in an instructor conveying information, inspiring the learner, or giving feedback. Additionally, it may incorporate the learner's interaction with the teacher by communicating or asking questions related to course exercises" (p. 22).

According to Sinclaire (2011), organizational behaviorists have found that personality, personal values, and psychological needs, as well as other factors, influence both the types of work people choose and the satisfaction they derive from work. Abuhassna and Yahaya (2018) posit that as online learning platforms increase, so should student engagement and interactivity; additionally, instructors integrate the communication with learners, giving support and feedback. According to Smart and Cappel (2006), this integration should be carefully planned based on characteristics, course content, and the learning context. One key to student engagement is instructor engagement (Richardson & Swam, 2003; Sinclaire, 2011; Zhan & Mei, 2013; Kebritchi, 2014; Bickle, Rucker, & Burnsed, 2019; Martin, Budhrani, & Wand, 2019; Rath, Olmstead, Zhang, & Beach, 2019; Rucker, & Burnsed, 2019).

Wingo, Ivankova, and Moss (2017) introduced the Technology Acceptance Model (see Figure 2.13) because "it includes factors regarding users' technical experiences and their perceptions about how using technology might affect their status in an organization, providing a broad scope for surveying research about faculty's experiences as online instructors" (p. 16).



**Figure 2.13:** *Technology Acceptance Model (Allen, 2020)*

## 2.13 Industry Perspectives

Hertzman (2006) observed formal culinary education could assist a worker with placement in a higher entry-level kitchen position, employment at a higher quality restaurant, and more rapid advancement. Deutsch (2014) indicated that the net effect of traditional culinary education is generally positive: respectful, hardworking cooks who channel their desires to learning from chefs in hopes of one day becoming one.

Wesen (2019) argued, “Food preparation workers learn through short-term on-the-job training, usually lasting several weeks. No formal educational credential or previous work experience is required” (p. 40). About culinary educators, Smyth (2001) observed educators are practitioners who leave the industry, often entering academia with outdated and ineffective teaching models. Deutsch (2018) submitted that chefs and managers report being dissatisfied with many culinary school graduates, preferring to recruit and train independently.

Cossio (2016), quoting from a survey respondent identified as Lead Chef Instructor, BS program, Certified Executive Chef A.A.S. training, Chef Keith, 2011), stated: “You look a fool when you can’t cook. A real educational system would take out of the mix those who can’t make

it---mom and pop, the groupies---the ones who want a chef coat to look important. The accrediting commission needs to put their foot down and say: no, I won't accredit you, no slipping of the training hours... the co-op person takes an easy type job, graduates and thinks they are something because they haven't worked in the belly of the kitchen" (p. 11).

## **2.14 Challenges and Concerns**

Both students and faculty have regular and ongoing challenges with online education. Keengwe and Kidd (2010) identify inadequate hardware and software, slow internet connections, and lack of technical knowledge and skill as contributing to online learning problems. They also suggest that a lack of release time to develop online courses contributes to diminished faculty participation in developing, designing, and teaching online courses. Also, Matsom (2006) indicated time for planning and participation and a requirement to learn new technology cause frustration among faculty. Furthermore, Keengwe and Kidd (2010) suggest faculty hesitancy because many feel they may lose autonomy and control over their curriculum.

Among students, Kim and Bonk (2006) identified that student boredom leads to students dropping out of online classes, asking for more engaging classes. Swan and Shih (2005) proposed the online environment might prevent students from developing a sense of belonging with other students. Similarly, Gillett-Swan (2017) suggests the 'one-size-fits-all' approach, where content remains constant, regardless of delivery mode, is a significant problem that leads to student isolation.

Nash (2015) reminded educators that it is inappropriate to expect students to be just students, as they are often working full-time hours, carry full academic loads. It is frequently these students who choose online education. McGuire (2016) discussed faculty difficulties interacting asynchronously in online discussion forums; an instructor's failure to accommodate

social presence is a key indicator of instruction that lacks an appropriate dimension of cognitive, social, and teaching presence facilitates a community of inquiry. McGuire (2016) also pointed out that a fear of being misinterpreted if they used humor and not knowing their students contributed to faculty perceived problems with online education.

A significant problem with online education, as defined by Nash (2015), was a fear of student evaluations as well as administration disapproval causing grade inflation:

“The problem is that faculty are now trying to satisfy both students and administration, while trying somehow to hang on to some shred of ethical value. Teachers are enticed into planning easy assignments that are easy and fun for the students. The problem is, we as faculty and HE institutions are supposed to be preparing these students for the real world where hard work and effort will be expected. We are also preparing professionals. If students do not really learn and retain the education that our devalued diplomas say they hold, would you really want that so called “accountant” doing your taxes. Or would you like these graduates to be your “lawyer” representing you in court, or worse, have that graduate as your surgeon?” (Nash, 2015, p. 82)

Chin and Williams (2006) described distance education as being “associated with the notion of the ‘hermit learner,’ and an experience akin to the ‘loneliness of the long-distance runner,’ i.e., a student learns on their own, largely remote from other learners. Since people, generally speaking, are social beings with a sense of belonging, it is possible to become alienated from the learning process if interaction with other learners is minimal” (p. 18).

In designing online courses, Sebastianelli and Tamimi (2011) posited that discussion boards offer little value. Tucker (2012) found discussion boards to be “worthless,” though they were quoting a brief response to a qualitative query that did not reflect scholarly thought.

Capdeferro and Romero (2012) found that group assignments caused student frustration, especially in online classes, because “it violates the very reason many online students take their courses over the internet. They don’t have time to conform to everyone else’s schedule. Also, the other students in the group don’t always do their part” (Nash, 2015). Chin and Williams (2006) suggested that one of the most significant challenges in online education was the lack of face-to-face communication, the absence of instantaneous response.

It appears that online education is not for every student. Khanlarian and Singh (2014) suggested students should make the most vigorous effort in an online class, be self-motivated and self-directed learners, take online education seriously, and realize that they will not benefit from little effort. Unfortunately, Marshall, Greenburg, and Machun (2012) found that students prefer courses that require little time and effort. While it would require a little effort on the side of the student, Nakayama, Mutsuura, and Yamamoto (2014) found better note-taking would result in better grades.

## **2.15 Future of Culinary Arts Education**

Jotikasthira and Santithamsakul (2020) indicated young people aspire to become chefs from seeing cooking shows and media portraying the non-realistic working conditions of chefs” (p. 47). Yenai and Kubiena (2016) stated “anyone with even the mildest interest in cooking, either professionally or at home, nowadays have free access to an ever-increasing amount of information on products and ingredients, on cooking techniques and recipes” (p. 70). According to Jotikasthira and Santithamsakul (2020), “culinary programs at the college level need to identify their roles to develop mid-level culinary personnel to grow professionally, and successfully create their business ventures in the international arena” (p. 46).

Elements for consideration with the design of future culinary arts programs include:

- courses and learning activities that support students to develop culinary skills and knowledge (Jotikasthira & Santithamsakul, 2020).
- Instructors need to stay relevant with the latest trends and progress in the industry, or else their knowledge and skills might become obsolete and irrelevant (Suhairoma, Musta'amal, Amin, & Johari, 2014).
- The design of online experiential learning, a derivative of in-person experiential exercises that are easily converted into online experiential activities (Potosky, 2002).

Cossio (2016), quoting Chef Doug from a survey response, described a valid consideration, stating: “The consequences of moving from mentored training to group training resulted in the perception of declining student technical skills, as the following quote illustrates: You can’t drive a car in theory. What you have in the book has to go from the book to the brains to the hands. I look at the higher educational model: everyone wants to graduate from college, but if the knowledge isn’t in your head, you will never make it” (p. 17).

## **2.16 Gaps & Future Research Opportunities**

Smart and Cappel (2006) proposed further research to explore student motivation, compare student outcomes between online classes and face-to-face classes, and the types of e-learning components that are most effective in achieving desired course learning outcomes (synchronous versus asynchronous chat, discussion posts, email, simulations, and other related course design constituents. Additionally, Kebritchi (2014) suggested the sample size of future investigations of online learning be large enough to be useful.

Very few scholars have investigated the issues and challenges associated with culinary education (Zopiatis et al., 2014; Wesen, 2019). Zopiatis et al. (2014) suggested that the majority

of research on culinary education is designed to enhance culinary learning experience and support degree programs in higher education; research on culinary education is around quality and whether or not it meets the expectations of students, families, the industry, and society.

Of note, is this comment in a 1978 *Washington Post* piece on the state of culinary education:

“Despite its stature, the C.I.A. [Culinary Institute of America] is undergoing a management crisis. It is caught between the methods of its faculty members, who respect and depend on traditional European training cooks, and the demands of an industry enthralled with automation and fast food. Should young men and women who will soon be working with machines and computer print-outs learn from scratch cooking? Should they absorb the lore and prejudices of Old-World theoreticians? So far, the answer has been yes, but there are pressures to streamline and ‘modernize’ the program” (Deutsch, 2018; Rice, 1978).

Very little research has been conducted to explore hands-on culinary training online. Specifically, what are the best technologies for online hands-on culinary arts skills training (Ryll, 2017)? Additionally, tens of thousands of dollars of tuition to receive professional education for a low-wage job with few barriers to entry seems farcical (Dixon, 2015).

Ryll (2017) indicated that teaching cooking methods through an online medium might be a viable instructional alternative, particularly for reaching those current and potential students who are genuinely distanced from the traditional face-to-face instructional setting.

The chef has no mandate for formal education. The impact of federal preferences on the culinary curriculum has led to the steady erosion of curricular control by chefs, producing a field

of instability (Cossio, 2016; Fligstein & McAdam, 2011). Sir Ken Robinson (2011) summarized the challenges that face culinary arts education:

“Current systems of education were not designed to meet the challenges we now face. They were developed to meet the needs of a former age. Reform is not enough: they need to be transformed” (p. 49).

The “chef of the future” will be successful only if educators innovate and plan by looking at the key successes and failures of traditional chef training (Kaplan, 1979). Educators must consider the road ahead, which includes a rapidly changing socioeconomic climate filled with innovations in food science and technology (Smyth, 2016).

Further research should be conducted, focusing on online culinary arts education, specifically course design with effective use of technology that engages instructors and students, students and students, and students and content. How to evaluate prepared dish texture, aroma, taste, and plate composition should be explored.

## **2.17 Conclusion**

Swan and Shih (2005) suggested that success in online education is determined, at least in part, by instructor presence, instructional design, and student participation and social presence. These principles and others already discussed, will be explored and evaluated in the study that follows.

## **CHAPTER 3: THEORY AND METHODOLOGY**

### **3.1 Theory**

It has been suggested that the hospitality curriculum may not offer the proper knowledge and skills for those seeking future work. A change must be made in higher education to address this issue (Brownell & Chung, 2001). In addition to traditional practical culinary knowledge and skill, culinary students must gain proficiency in the use and application of technology to be successful in the kitchens of the future. More and more commercial equipment relies on computer technology to control and monitor cooking processes. This is something culinary students must experience during their training.

The literature reviewed shows that practical aspects within culinary arts programs are often associated with experiential learning processes (Wan et al., 2010). Additionally, Sperling (2017) observed that a hallmark of a Culinary Institute of America degree is the depth of experiential learning where well over 50% of its curriculum is experiential, with a combination of classroom lecture and hands-on laboratory experiences. McCarthy (2016) defined experiential learning as active, interactive learning in which learners take an active role in the learning process. She suggested that knowledge is created through an adaptive process that merges experience, perception, cognition, and behavior. David Kolb defined experiential learning theory as “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (Kolb, 1984, p. 41).

Culinary knowledge and skill it was thus found, are primarily acquired through experiential activities, allowing students to create their own understanding. The main focus of

this study is to determine the most effective way to design the online culinary course to ensure effective experiential learning.

In the traditional, in-person culinary classroom, students work in groups, allowing them to collaborate and learn from each other. Collaborative learning activities can engage students' participation and interaction, working together toward a common academic goal and increasing the level of satisfaction and feelings of connection and community (Alzahrani & Woollard, 2013; Zhan, 2008). How best to create collaborative learning activities in the online culinary environment is another focus of this study.

Discussing transactional distance theory, Moore (1997) stated, "Programs are structured in different ways to take into account the need to produce, copy, deliver, and control these mediated messages. Structure expresses the rigidity or flexibility of the program's educational objectives, teaching strategies, and evaluation methods. It describes the extent to which an education program can accommodate or be responsive to each learner's individual needs" (p. 24). Course design structure is another important focus of this study. Responding to a learner's individual needs is a concern for any instructor, in-person or online. This study seeks to explore various online course designs and structures to determine the most effective in delivering course content and accommodating learners' needs.

Another focus of this study is found in Moore's Transactional Distance Theory. Moore (1997) summarized interaction in distance learning, outlining "instructor-learner interaction, learner-learner interaction, and learner-content interaction" (p. 22). This research will play an integral part in understanding how best to keep learners engaged with instructors, classmates, and content in the online environment.

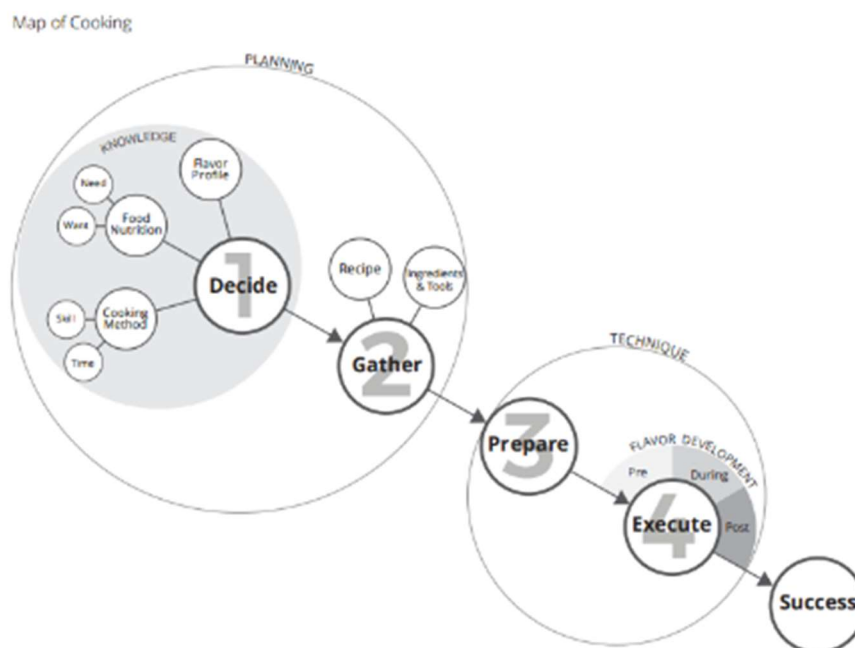
There are two postsecondary culinary programs offering various certificates of proficiency that deliver course content online. Rouxbe Cooking School's online program began in 2005. The Auguste Escoffier Online Culinary School began in 2012. These two schools lay the foundation for this study which will take place at the University of Arkansas Pulaski Technical College – Culinary Arts and Hospitality Management Institute.

### ***3.1.1 Rouxbe Online Map of Cooking***

Rouxbe Cooking School began offering online certificate programs in 2005. How Rouxbe delivers content, interacts with students, assesses students, and supports student learning is addressed here.

"Rouxbe has created an exceptional culinary training tool that can reach aspiring chefs on a scale not previously thought possible" Marcus Samuelsson, Award-winning author & chef (Offering courses in classic and next-generation techniques, 2020).

"Online learning has allowed students to tailor their training towards their needs, and a nine-to-five approach for learning no longer applies. The *Rouxbe* platform means you can fit your learning around your own schedule and works with a combination of video, tutorial, and access to the online community." *Rouxbe* is made up of experienced chef educators and culinary school executives. Unlike other online video tutorial platforms, the course will be instructor-led with individual assessment and feedback baked into the course (Rouxbe is a new standard of online culinary training, 2021). Rouxbe incorporates a Map of Cooking (see Figure 3.1) that outlines the cooking and learning process, from a simple sauté to a complex soufflé.



**Figure 3.1:** Rouxbe Online School's Map of Cooking. (*Tips and Techniques: Map of Cooking, 2021*)

"The courses follow a logical progression and are organized by units, lessons, and tasks. I loved that it started with knife skills, which are really important for veg chefs. Each task has a combination of text to read, videos, and practice. Most things are demonstrated in a video that you can stop and playback as needed" (Lieber, 2020). This ability to review specific course content repeatedly until understanding is reached is a hallmark feature of online culinary training. In contrast, in-person instruction is a one-and-done experience, with no opportunity to rewind and replay sections of instruction or demonstration.

Rouxbe Cooking School's program is listed as an American Culinary Federation Education Foundation (ACFEF) Approved Online Certificate Program (ACFEF-approved online certificate programs, 2021) but is not listed as an American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) Accredited Postsecondary Program (Accredited Postsecondary Programs, 2021). As of this study, the American Culinary Federation

Education Foundation Accrediting Commission has not accredited any online educational program.

### ***3.1.2 Escoffier Online Culinary School Learning Model***

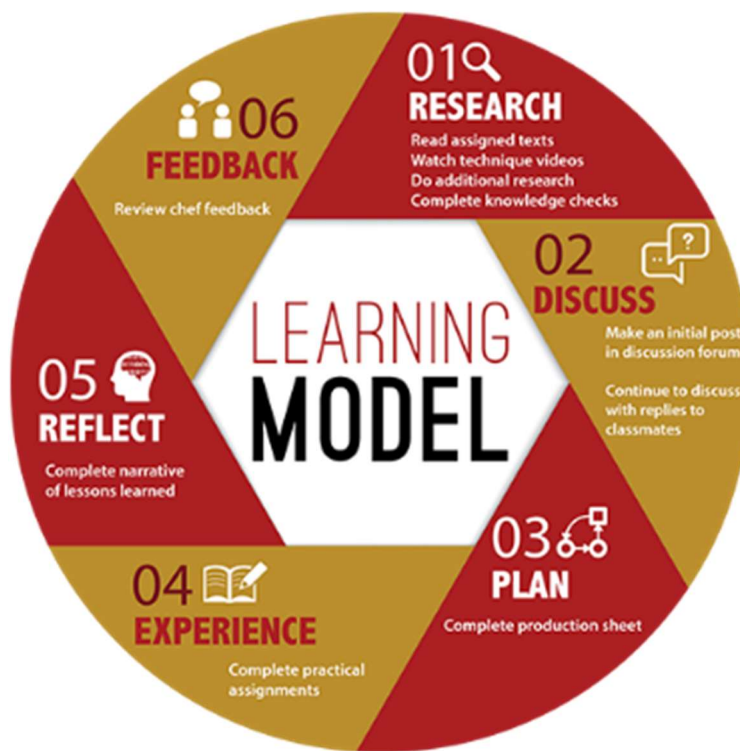
The Auguste Escoffier Culinary School began offering online certificate programs in 2012. How the Escoffier Online Culinary School delivers content, interacts with students, assesses students, and supports student learning is addressed here.

“Escoffier Online International Culinary Academy was the first school to offer certifications in both culinary arts and pastry arts in an online educational setting,” wrote Stefan Ryall (2019). “Escoffier Online, in affiliation with the Escoffier Foundation of France, delivers culinary education via the web, with a curriculum designed to help students develop real-world kitchen credentials. The Escoffier Online program... focuses on the building blocks of cooking, with core courses covering culinary basics, groundwork, and essentials. Each course includes a series of interactive learning modules addressing culinary arts topics. Every module culminates with an assessment that includes a self-evaluation, recipe preparation, and one-on-one mentor review” (Ryall, 2019).

“Our online programs allow you to take classes in the convenience of your home and within your schedule. Plus, you get personalized support to help you keep on track with your education goals! In addition to a well-rounded, quality education that includes the latest skills and methodology as well as a business foundation, our programs also include hands-on industry externships that help you gain professional experience” (100% online culinary arts education, 2021).

Escoffier Online Culinary School follows a specific learning model (see Figure 3.2). Students engage in a series of research activities, including assigned readings, videos to watch,

or other research, culminating in an assessment activity. Using a discussion board, students engage with each other, ‘discussing’ the researched topic. ‘Plan’ and ‘experience’ make up the hands-on, practical component of the culinary course; students plan for the cooking experience by completing a production sheet and organizing equipment, supplies, and timeline. After the actual cooking ‘experience,’ students ‘reflect’ on their cooking experience by articulating, in writing, the details of their personal experiences and observation. A key component of the learning experience is the feedback students receive from mentor chefs (chef instructors).



**Figure 3.2:** The Escoffier Online Culinary School’s Learning Model. (Bright, 2020)

Escoffier Online Culinary School’s website promotes their program by stating: “Through our diploma and degree programs in Culinary Arts, you’ll study interactive courses delivered by our professional chef instructors, engage in live classroom discussions, learn the business side of the industry, and fine-tune your techniques and knowledge – all in the convenience of your own kitchen” (Culinary Arts Online, 2021). However, the question remains: Can one effectively

prepare for the heat, chaos, and challenges of a commercial kitchen ‘in the convenience of their own kitchen’?

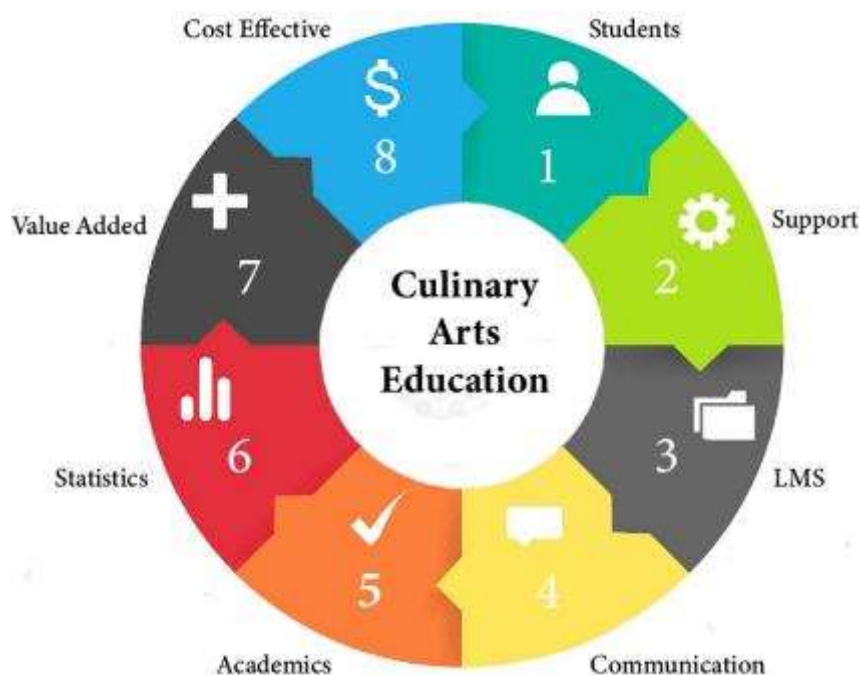
Escoffier Online Culinary School’s program is listed as an American Culinary Federation Education Foundation (ACFEF) Approved Online Certificate Program (ACFEF-approved online certificate programs, 2021), but is not listed as an American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) Accredited Postsecondary Program (Accredited Postsecondary Programs, 2021); Escoffier’s in-person programs at Boulder, Colorado, and Austin, Texas, are accredited. As of this study, the American Culinary Federation Education Foundation Accrediting Commission has not accredited any online educational program.

### **3.2 Culinary Learning Model**

Constructivism, experiential learning, situated learning, and transactional distance theory are brought together by the researcher in what has been called, Culinary Learning Model. Students are required to construct knowledge and gain skills through planned culinary experiences. Many of these planned experiences are situated in simulated restaurant kitchen experiences, without the heat, noise, and chaos of a commercial kitchen. To practice these knowledge and skill-building experiences online, instructors must understand transactional distance and incorporate course design that engages students with instructors, students with students, and students with course content.

A synthesis of the literature and practices examined found that to be effective, culinary arts education must consider several course design elements (see Figure 3.3 This is exemplified in the ‘Circle of Culinary Arts Education’ and Table 3.1 The Explanation of the Circle of

Culinary Arts Education). Each part intends to reflect attention on the student, student support, and method for measuring effectiveness and success.



**Figure 3.3:** *The Circle of Culinary Arts Education (Author's Work)*

While Figure 1 is a graphical depiction of essential elements of effective culinary arts education in general, administrative terms, Table 3.1 (see below) illustrates each element in a comparative narration of both in-person and online education. One significant intention of Table 1 is to highlight the similarity between the two modalities. Regardless of the method of instructional delivery, it is posited that the key elements of effective education are essentially the same. #4 Communication is the area of greatest difference, resulting from course delivery method and distance.

**Table 3.1:** Explanation of the Circle of Culinary Arts Education (Author's Work).

	Area	In-Person Culinary Education	Online Culinary Education
1	Students	Individuals interested in learning more about food to be more efficient in the home kitchen; individuals interested in preparation for a career in foodservice as chefs, pastry chefs, foodservice managers, restaurateurs, etc.	Individuals interested in learning more about food to be more efficient in the home kitchen; individuals interested in preparation for a career in foodservice as chefs, pastry chefs, foodservice managers, restaurateurs, etc.
2	Support	The instructor is timely in response to student requests for help, more information, coaching, advising, etc.  University provided Information Technology support.  University-provided tutoring, academic advising, etc.	The instructor is timely in response to student requests for help, more information, coaching, advising, etc.  University provided Information Technology support.  University-provided tutoring, academic advising, etc.
3	LMS	A learning management system that is robust enough to provide allow instructors and students to engage in dynamic coursework.	A learning management system that is robust enough to provide allow instructors and students to engage in dynamic coursework.
4	Communication	<i>Instructor-Student interaction via in-person class discussions, Q&amp;A, and in-office advising; Student-Student interaction via in-person group/team lab assignments; Student-Content engagement via planned, guided assignments to scaffold learning.</i>	<i>Instructor-Student interaction via real-time ZOOM class discussions, ZOOM Q&amp;A, and ZOOM coaching and advising; Student-Student interaction via ZOOM breakout room lab practice groups; Student-Content engagement via planned, guided assignments to scaffold learning.</i>
5	Academics	Sufficient academic variety to reach every learning style; sufficient academic rigor to ensure recognizable and respected certificate/degree value.	Sufficient academic variety to reach every learning style; sufficient academic rigor to ensure recognizable and respected certificate/degree value.
6	Statistics	Student success rates and student retention levels that support the growth of the department.	Student success rates and student retention levels that support the growth of the department.
7	Value Added	Scheduled "Guest Chef" appearances – to discuss chef's career preparation, career highlights, current work, knowledge, and skills needed for success, motivate students.	Recorded "Guest Chef" segments – to discuss chef's career preparation, career highlights, current work, knowledge, and skills needed for success, motivate students.
8	Cost-Effective	All products, supplies, material for lab work are covered by lab fees collected at tuition/fee payment.	All products, supplies, material for lab work are covered by lab fees collected at tuition/fee payment.

### Rouxbe's Map of Cooking and Escoffier's Online Culinary School Learning Model

establish a foundation upon which asynchronous online learning can take place, learning which

one might also refer to as automated, disconnected, or unplugged. In this environment, lesson materials (text, graphics, videos, etc.) are organized in a learning management system, and learners work at their own pace with limited direct engagement with instructors. Culinary Learning Model under examination builds on these theories and learning models but goes further by recommending sustained direct engagement between instructors and students, mimicking the traditional, in-person classroom.

Based on the aforementioned learning theories and models, the proposed Culinary Learning Model (see Figure 3.4 Culinary Learning Model) was developed for the current study. Intended to be applicable to in-person and online culinary arts education, this learning model employs a specific, proposed course design. Students are assigned text to read and recorded videos to watch; these activities are then assessed via various assessment activities. Students then watch a demonstration of a new skill and have the opportunity to practice that skill. Practice occurs at students' chosen time, according to their availability as well as during weekly ZOOM sessions; during these sessions, instructor and students meet from their homes or work kitchens with assigned lab supplies, in uniform, set up properly, practice the new skill, and receive feedback in real-time, based on individual performance. It is expected that students will apply instructor feedback and make appropriate adjustments. Lastly, students are required to apply their newly acquired, refined skills in a cooking simulation (actual cooking experience, either at home or in the culinary school lab).

# Culinary Learning Model

Applies to both In-Person and Online



*Figure 3.4: Culinary Learning Model (Author's Work)*

Based on Confucius, “I hear, and I forget; I see, and I remember; I do, and I understand” (Gentry, 1990, p. 9) and Sophocles, “One must learn by doing the thing, for though you think you know it – you have no certainty until you try” (Gentry, 1990, p. 9), Culinary Learning Model merges constructivism, experiential learning, and transactional distance learning into one, cohesive model. The pedagogical variety expressed in Culinary Learning Model recognizes and accommodates the diversity of students’ learning styles, allowing all types of learners the opportunity to acquire new knowledge and skill, according to their preferred method of learning. Students read text, watch video, engage other students in discussion, observe live demonstration, and practice new skills, reaching almost every learning style.

Culinary Learning Model is built on the foundation of constructivism, experiential learning, situated learning, and transactional distance theory. It adds to the work of Rouxbe and the Escoffier Online Culinary School, incorporating real-time engaged experiences between instructors and students. Whether in-person or online, students are expected to read the material

in preparation for a discussion or demonstration that will introduce a new culinary topic. After watching a demonstration of a new culinary skill, including the opportunity to ask questions in real-time, students practice the skill demonstrated; instructor feedback at this stage is both instructive and corrective. Upon receiving feedback, students are expected to make necessary adjustments. Then, they are able to apply new knowledge and skills acquired in the professional setting.

### **3.3 Research Design**

#### ***3.3.1 Overview***

Several research paradigms have been explored in the development of this study. These overlapping, constructivist paradigms include:

- **Positivism.** As described by Dawadi, Shrestha, and Giri (2021), positivism considers that only the knowledge confirmed by the senses is affirmed as knowledge. It follows the objective route in research and advocates that knowledge is gained by gathering objectively verifiable facts using quantitative means.
- **Interpretivism.** Taylor and Medina (2013) defined interpretivism as the belief in multiple realities and a paradigm that respects subjective meaning. Qualitative tools such as interviews, focus groups, and participant observation are used to understand a situation and explain conclusions and findings (Dawadi, Shrestha, & Giri, 2021).
- **Constructivism.** Constructivism is based on the premise that reality is a product of human interaction with the real world. It is guided by the belief that the active

construction of knowledge occurs when there is human interaction with the real world, that knowledge is built up socially (Dawadi, Shrestha, & Giri, 2021).

- **Criticalism.** Taylor and Medina (2013) argued that criticalism approaches knowledge from a critical perspective and focuses on power imbalance in society. The primary purpose of research is to identify and resolve power imbalances in society (Taylor & Medina, 2011). In this paradigm, the researcher's role is one of advocate, a change agent, who argues for and leads towards a more equitable, fair, and sustainable society (Dawadi, Shrestha, & Giri, 2021).
- **Pragmatism.** Dawadi, Shrestha, and Giri (2021) described pragmatism as not committed to any sort of philosophical stance. Pragmatism is pluralistic and oriented towards what works. In other words, pragmatism uses multiple methods, but research problems should always guide the methods. It values both objective and subjective knowledge to meet research objectives. "Pragmatists decide what they want to research, guided by their personal value systems; that is, they study what they think is important to study" (Dovona-Ope, 2008, p. 65).

Each of the aforementioned research paradigms influences this study. One aspect of the study will be positivist, objectively verifiable facts obtained from pre-course and post-course surveys as well as a comparative analysis of in-person and online assignment performance. This study is also interpretivist, subjective observation of participant performance and open-ended responses of the pre-course and post-course surveys. Each in-person and online course is studied in a constructivist environment; culinary arts education takes place in real-world situations, allowing students to construct knowledge. The researcher's approach to this study is one of

criticalist change agent, potentially modernizing an ancient training system. Lastly, this study will pragmatically follow the data, rather than focus on data that might prove the hypothesis.

Potha and Munce (2020) suggested mixing two methods might be superior to a single method as it is likely to provide rich insights into the research phenomena that cannot be fully understood by using only qualitative or quantitative methods. Dawadi, Shrestha, and Giri (2021) proposed when a researcher wants to generalize the findings to a population and develop a detailed view of the meaning of a phenomenon or concept for individuals, the advantages of collecting both closed-ended quantitative data and open-ended qualitative data support understanding a research problem. Another reason for mixing two methods is that both kinds of research have value and are complementary; the researchers use both data sets to answer the same research question, producing greater certainty and broader implications in the conclusion (Maxwell, 2016).

This study will employ a concurrent triangulation mixed methods research design. Some (Schoonenboom & Johnson, 2017; Shorten & Smith, 2017) have argued that concurrent mixed methods is an efficient approach, as qualitative and quantitative methods are collected concurrently and analyzed independently to triangulate results. Concurrent mixed methods is an approach in which two data sets are combined to get a complete picture of the issue being explored and to validate one set of findings with the other (Dawadi, Shrestha, & Giri, 2021).

### ***3.3.2 Research Design***

Williams (2007) stated that research is the process of collecting, analyzing, and interpreting data to understand a phenomenon. Willig (2013) suggested that there are no right and wrong means of going about conducting research. However, according to Almalki (2016),

researchers must pinpoint what they are doing and why, with whom, where, and when they are undertaking a specific inquiry. Referring to research design, Sam Ladner (2019) wrote:

“In the research design phase of the project, your fundamental goal is to set yourself up to make analysis and reporting as straightforward as possible. It implies making choices that will generate data that are of particular shapes and sizes, so you need to think two or three steps ahead. This would be true of any research study, but it’s even more challenging to do when mixing methods; you need to imagine how your collection activities shape the data in both qualitative and quantitative ways” (Ladner, 2019, p. 52).

Kirshenblatt-Gimblett (2006) suggested the length and complexity of research designs can vary considerably, but any sound design will do the following things:

1. Identify the research problem clearly and justify its selection,
2. Review previously published literature associated with the problem area,
3. Clearly and explicitly specify hypotheses [i.e., research questions] central to the problem selected,
4. Effectively describe the data which will be necessary for an adequate test of the hypotheses and explain how such data will be obtained, and
5. Describe the methods of analysis that will be applied to the data in determining whether or not the hypotheses are true or false.

“Researchers can improve the accuracy of their judgments by collecting different kinds of data bearing on the same phenomenon” (Jick, 1979, p. 602). Creswell (2014) noted that researchers must question themselves about the knowledge claims and theoretical perspectives that they bring to any research, they must reflect upon the strategies they intend to use within

their study, which will, in turn, inform their methods, and have questioned how they will collect and analyze information. This will ensure that researchers are cognizant of any bias they might bring to study, how it will affect the choice of approach they utilize, and the tools they choose to collect their data (Vogt et al., 2012; Almalki, 2016). This is planning the research methodology of a study.

Rajasekar et al. (2013) described research methodology as “...the procedures by which researchers go about their work of describing, explaining and predicting phenomena” (p. 5). Methodology provides research with its philosophy, values, and assumptions that drive the rationale for the investigation and the standards utilized to interpret information and draw conclusions (Bailey, 1994). Research methodology considers the ethics, potential risks and problems, and the limitations of any study (Cohen, Manion, & Morrison, 2007). Research methods also consider researchers' instruments and tools while they administer any inquiry (Bailey, 1994; Walliman, 2011).

The hypothesis of this study, “if the course is designed with student engagement and learning objectives/knowledge and skill competencies in mind, an online practical culinary arts course can be designed and delivered effectively and efficiently, satisfying students, faculty, and accrediting organizations,” justify a mixed methods research design. This will allow for rich findings with depth and breadth that will inform the culinary arts industry, educational stakeholders and contribute to published scholarship that can shape the future of culinary arts education. “Mixed methods research draws on potential strengths of both qualitative and quantitative methods, allowing researchers to explore diverse perspectives and uncover relationships that exist between the intricate layers of our multifaceted research questions” (Shorten & Smith, 2017, p. 74). “The overall goal of mixed methods research, of combining

qualitative and quantitative research components, is to expand and strengthen a study's conclusions and, therefore, contribute to the published literature" (Schoonenboom & Johnson, 2017, p. 110).

### **3.4 Mixed Methods**

"A research question cannot always be answered using the qualitative or quantitative approach alone. In this sense, mixed methods have appeared that intend to offer a new approach, in which a researcher intends to use the strengths of both methodologies" (Almeida, 2008, p. 138). Mixed methods research is an approach that combines both quantitative and qualitative methods into a single study to provide a broader and more complete vision of a problem (Almeida, 2008; Creamer, 2016; Creswell & Plano Clark, 2007; Haines, 2011; Johnson & Onwuegbuzie, 2004; Molina-Azorin, 2016). "It is argued that quantitative and qualitative approaches can be integrated within one study if the research problem requires methodological triangulation to increase the validity and reliability of the study. This can then maximize the conclusion of the research study" (Buckley, 2015, p. 297). Mixed methods research offers richer insights into the phenomenon being studied and allows the capture of information that might be missed by utilizing only one research design, enhances the body of knowledge, and generates more questions of interest for future studies that can handle a broader range of research questions because the researcher is not limited to one research design (Caruth, 2013).

According to Yin (2006), a single study starts with a single set of research questions. A frequent practice in carrying out mixed methods research is to split the original set of questions so that different research methods address different questions. Therefore, this study will follow this general plan (see Table 3.2):

**Table 3.2:** *Concurrent Triangulation Mixed Methods Research Plan (Author's Work).*

	<b>Research Question</b>	<b>Research Method</b>	<b>Research Processes</b>
1	How can practical (hands-on) culinary arts education be delivered effectively in an online environment?	<ul style="list-style-type: none"> <li>• Quantitative Survey</li> <li>• Qualitative Questionnaire</li> <li>• Quantitative Observation (from outside evaluators' numeric scores)</li> <li>• Qualitative Observation (from outside evaluators' written comments)</li> </ul>	<ul style="list-style-type: none"> <li>• Three iterations of CUL 1302 Food Production I and CUL 1303 Food Production II – comparison of pre-course and post-course survey results</li> <li>• Comparison of post-course practical exam evaluator scores and comments.</li> </ul>
2	In an online culinary arts program, what methods can faculty use to maintain student engagement and presence?	<ul style="list-style-type: none"> <li>• Quantitative Survey</li> <li>• Qualitative Questionnaire</li> <li>• Quantitative Observation (from outside evaluators' numeric scores)</li> <li>• Qualitative Observation (from outside evaluators' written comments)</li> </ul>	Three iterations of CUL 1302 Food Production I and CUL 1303 Food Production II – compare pre-course and post-course survey results and compare academic performance among in-person and online students from each of the three-course design iterations.
3	How is online culinary arts education perceived by students, faculty, and accrediting organizations?	<ul style="list-style-type: none"> <li>• Quantitative Survey</li> <li>• Qualitative Questionnaire</li> </ul>	Pre-course and post-course survey
4	What are best practices for delivering non-lecture, practical, hands-on culinary arts education online?	<ul style="list-style-type: none"> <li>• Quantitative Survey</li> <li>• Qualitative Questionnaire</li> <li>• Quantitative Observation (from outside evaluators' numeric scores)</li> <li>• Qualitative Observation (from outside evaluators' written comments)</li> </ul>	<ul style="list-style-type: none"> <li>• Three iterations of CUL 1302 Food Production I and CUL 1303 Food Production II</li> <li>• Comparison of pre-course and post-course survey results</li> <li>• Comparison of post-course practical exam evaluator scores and comments</li> <li>• Comparison of the course design of each iteration of each course.</li> </ul>

The concurrent triangulation mixed methods research design of this study collected data from a variety of sources.

Two culinary arts courses (see Figure 3.5),

CUL 1302 Food Production I

CUL 1303 Food Production II, offered at the University of Arkansas Pulaski

Technical College, were offered in-person and online.

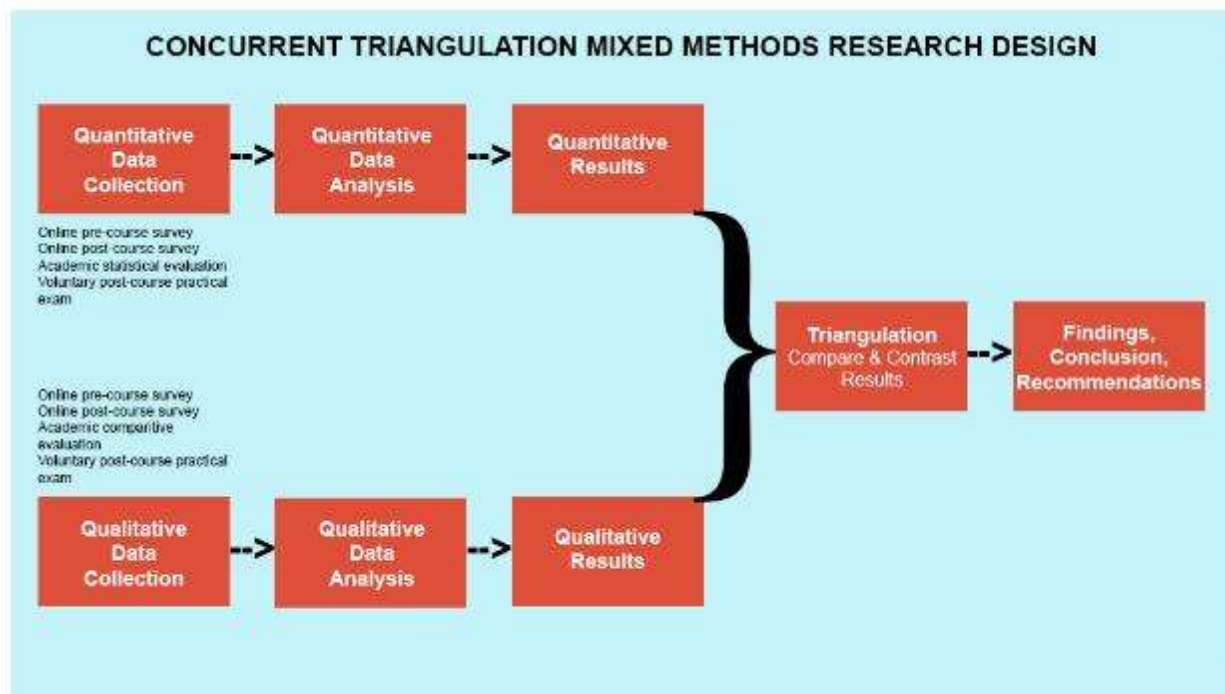
The online sections of each course underwent three course design iterations:

- 1) ***automated online***, in which the instructor presented all course content in Blackboard and was available via text or email to address student questions (students read text, watch pre-recorded lecture and demonstration videos, and submit written work in the learning management system);
- 2) ***hybrid online***, in which the instructor presented all course content in the learning management system like the automated online section, but added a weekly, synchronous class session, allowing students to interact in real-time with the instructor and each other; and
- 3) ***synchronous online***, in which course lecture content was presented and completed in the learning management system and the course hands-on lab content was conducted synchronously, in real-time, via video-conferencing (instructor and students cut together and cook together, according to the course schedule of each class).

<p><b>AUTOMATED ONLINE</b> CUL 1302 - Food Production I</p> <p>Culinary history, kitchen organization, food service safety and sanitation, mise en place, classical knife skills, introduction to kitchen math, introduction to cooking methods.</p> <p>WEEKLY:  <ul style="list-style-type: none"> <li>* Lecture Videos</li> <li>* Guest Chef Lecture Videos</li> <li>* Kitchen Math</li> <li>* Lab Demonstrations &amp; Assignments</li> </ul> </p> <p>All work is submitted in LMS; must be completed by end of semester.</p> <p>Instructor available for advising via text or email.</p>	<p>CUL 1303 - Food Production II</p> <p>Kitchen time management, food service safety &amp; sanitation, mise en place, classical knife skills, cooking methods &amp; techniques, introduction to plate presentation</p> <p>WEEKLY:  <ul style="list-style-type: none"> <li>* Lecture Videos</li> <li>* Guest Chef Lecture Videos</li> <li>* Kitchen Math</li> <li>* Lab Demonstrations &amp; Assignments</li> </ul> </p> <p>All work is submitted in LMS; must be completed by end of semester.</p> <p>Instructor available for advising via text or email.</p>
<p><b>HYBRID ONLINE</b> CUL 1302 - Food Production I</p> <p>Culinary history, kitchen organization, food service safety and sanitation, mise en place, classical knife skills, introduction to kitchen math, introduction to cooking methods.</p> <p>WEEKLY:  <ul style="list-style-type: none"> <li>* Lecture Videos</li> <li>* Guest Chef Lecture Videos</li> <li>* Kitchen Math</li> <li>* Lab Demonstrations &amp; Assignments</li> </ul> </p> <p>All work is submitted weekly in LMS; must be completed by end of semester.</p> <p>Weekly synchronous group session, promoting instructor and student interaction (recorded).</p>	<p>CUL 1303 - Food Production II</p> <p>Kitchen time management, food service safety &amp; sanitation, mise en place, classical knife skills, cooking methods &amp; techniques, introduction to plate presentation</p> <p>WEEKLY:  <ul style="list-style-type: none"> <li>* Lecture Videos</li> <li>* Guest Chef Lecture Videos</li> <li>* Kitchen Math</li> <li>* Lab Demonstrations &amp; Assignments</li> </ul> </p> <p>All work is submitted weekly in LMS; must be completed by end of semester.</p> <p>Weekly synchronous group session, promoting instructor and student interaction (recorded).</p>
<p><b>SYNCHRONOUS ONLINE</b> CUL 1302 - Food Production I</p> <p>Culinary history, kitchen organization, food service safety and sanitation, mise en place, classical knife skills, introduction to kitchen math, introduction to cooking methods.</p> <p>WEEKLY:  <ul style="list-style-type: none"> <li>* Lecture Videos</li> <li>* Guest Chef Lecture Videos</li> <li>* Kitchen Math</li> <li>* Lab Demonstrations &amp; Assignments</li> </ul> </p> <p>All work is submitted weekly in LMS; must be completed by end of semester.</p> <p>Weekly synchronous knife skills practice, including real-time feedback (recorded).</p>	<p>CUL 1303 - Food Production II</p> <p>Kitchen time management, food service safety &amp; sanitation, mise en place, classical knife skills, cooking methods &amp; techniques, introduction to plate presentation</p> <p>WEEKLY:  <ul style="list-style-type: none"> <li>* Lecture Videos</li> <li>* Guest Chef Lecture Videos</li> <li>* Kitchen Math</li> <li>* Lab Demonstrations &amp; Assignments</li> </ul> </p> <p>All work is submitted weekly in LMS; must be completed by end of semester.</p> <p>Weekly synchronous cooking and plating, including real-time feedback (recorded).</p>

**Figure 3.5:** Online Iterations of Culinary Arts Food I and Food II at the University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute (Author's Work)

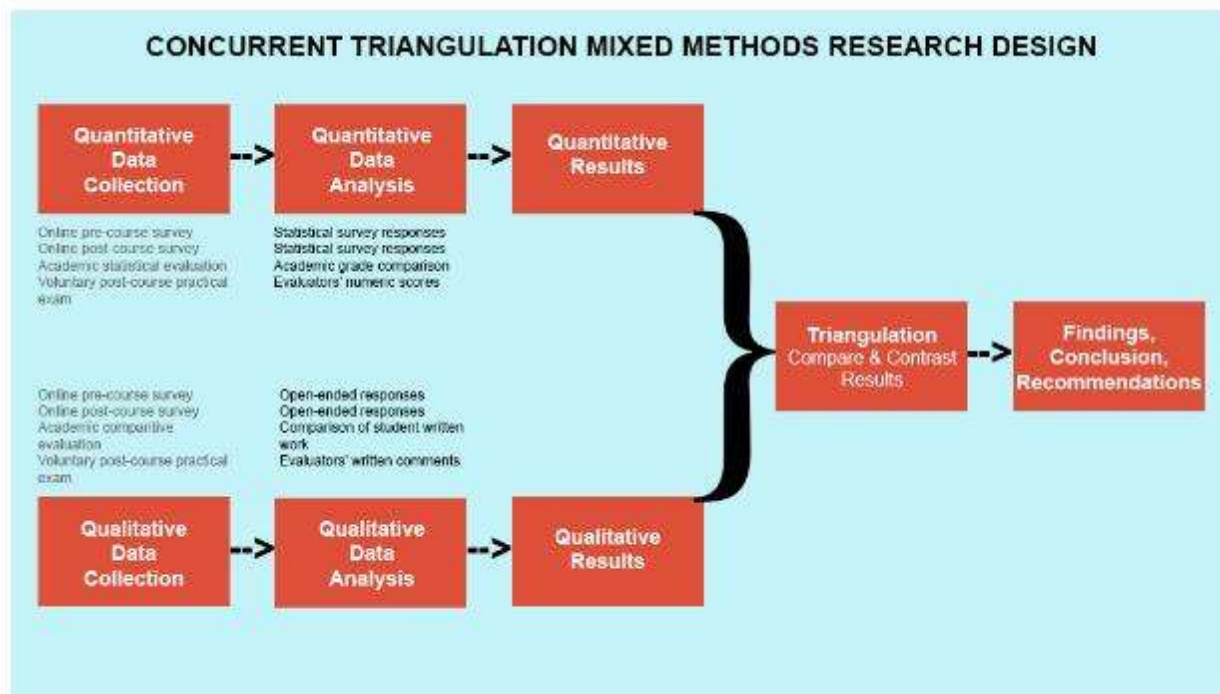
Convergent parallel mixed methods research, also called concurrent triangulation mixed methods research (Green, Caracelli, & Graham, 1989; Molina-Azorin, 2016), is a form of mixed methods design in which the researcher converges or merges quantitative and qualitative data to provide a comprehensive analysis of the research. Concurrent triangulation mixed methods was the research design of this study (see Figure 3.6).



**Figure 3.6:** *Concurrent Triangulation Mixed Methods Research Design, Plan – Part 1, adapted from (Creswell, 1999)*

The concurrent triangulation mixed methods research plan was conducted for Food Production I, a fundamental knife skills course, and Food Production II, which covers the essential cooking methods and techniques and an introduction of professional plate presentation.

Both quantitative and qualitative data was collected from various data sources, analyzed (see Figure 3.7 and Figure 3.8), and triangulated to expose the course design elements in which in-person and online courses harmonize and areas in which they are dissonant, to understand whether or not a practical culinary arts course can be offered effectively online, accepted by students, faculty, employers, and accrediting organizations.

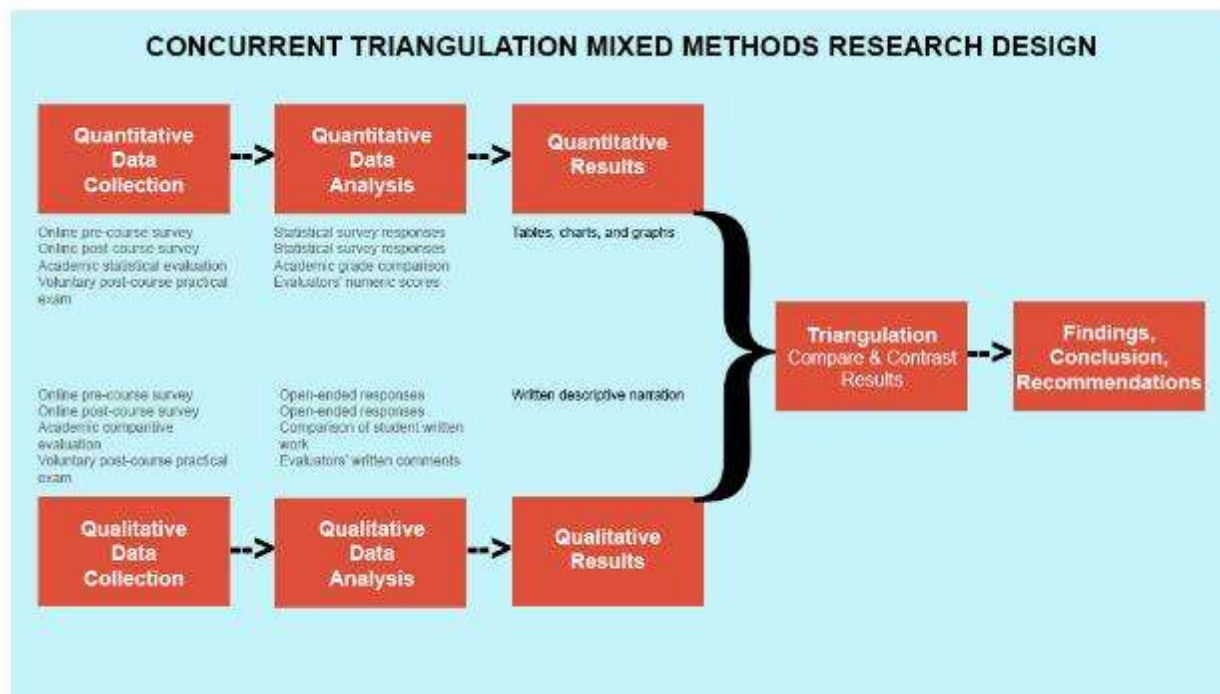


**Figure 3.7:** *Concurrent Triangulation Mixed Methods Research Design, Plan – Part 2, adapted from (Creswell, 1999)*

The pre-course and post-course surveys included both quantitative and qualitative questions. The quantitative responses were analyzed for statistical results.

Similarly, in-person academic performance were compared with online academic performance. Students from both modalities were assigned the same weekly key terms and weekly quizzes; they received the same instructions, though one group received in-person instruction and the other will received virtual instruction. Lab assignments were identical, though in-person students were assessed live and online students uploaded photo and video evidence of lab productivity. Also, numeric scores of the post-course practical exams were compared.

In the same way, qualitative data was gathered and compared from the open-ended responses obtained in the pre-course survey, post-course survey, practical exam evaluators' written comments, and instructor observations of each course section.



**Figure 3.8:** Concurrent Triangulation Mixed Methods Research Design, Plan – Part 3, adapted from (Creswell, 1999)

The quantitative analysis rendered a wide variety of tables, charts, and graphs that served to graphically explain the results.

Also, the qualitative analysis was presented in written descriptive narration.

### 3.4.1 Quantitative Methodology

Quantitative research is regarded as a deductive approach towards research (Rovai et al., 2014). Quantitative researchers believe the world is outside of themselves and that there is “... an objective reality independent of any observations” (Rovai et al., 2014, p. 4). They further contended that this reality could be understood by subdividing this reality into smaller, manageable pieces for the purposes of study. Observations can be made within these smaller subdivisions, and hypotheses can be tested and reproduced regarding the relationships among variables (Almalki, 2016).

Quantitative data for this study will be collected from a variety of sources. A pre-course online survey asked participants about their readiness for and perceptions of online learning and individual fluency with technology. A post-course survey asked many of the same questions as the pre-course survey, allowing for a comparative analysis of participant perceptions. Using in-software analytics, data were collected from Blackboard, the learning management system used by the University of Arkansas Pulaski Technical College – Culinary Arts and Hospitality Management Institute.

The pre-course survey focused on students' access to and fluency using cell phones, tablets, laptops, and other smart devices. The pre-course survey asked questions about students' perceptions of technology in education and their willingness to engage with the instructor, classmates, and course content through digital means. The post-course survey asked the same questions to determine where there were similarities and differences, comparing perception (pre-course) with experience (post-course). These survey questions were primarily numerical indicators on three-point and five-point Likert scales.

An integral data source for this study is the post-course, voluntary, final practical exam. American Culinary Federation certified practical exam evaluators assessed volunteer participants in a final, hands-on, practical exam, following American Culinary Federation knife skills and cooking method standards and the practical exam format. Participants who studied online and participants who studied in-person will take the exam simultaneously, in the same kitchen, and anonymous to evaluators; in other words, evaluators will not know who the in-person and online students are. This helped mitigate potential biases on behalf of the primary investigator of this study.

The Concurrent Triangulation Mixed Methods Research Plan includes the term ‘Quantitative Observation.’ What is meant by this is that the Food Production I students engaged in an untimed knife skills practical exam, evaluated by American Culinary Federation certified evaluators. Each participant completed seven classical knife cuts assessed by the observation of the evaluators and scored on a scale of 1 to 10, with 1 being very poor quality and unrecognizable to 10 being the highest degree of professional quality and productivity. This summative knife skills practical exam compared culinary student productivity after the same instruction but differing instruction delivery. The same survey, observation, and exam program was carried out in the Food Production II classes, covering dry, wet, and combination cooking methods.

### ***3.4.2 Qualitative***

Validity in qualitative research relates to whether the findings of a study accurately reflect the actual situation with findings backed by evidence and, consequently, renders results that cannot be doubted (Ndanu & Syombua, 2015). Qualitative research emphasizes understanding “... the meaning individuals or groups ascribe to a social or human problem” (Creswell, 2014, p. 4). Denzin and Lincoln (2005) described this approach as gaining a perspective of issues from investigating them in their specific context, and the meaning individuals bring to them. It focuses upon drawing meaning from the experiences and opinions of participants, pinpointing “... meaning, purpose or reality” (Harwell, 2011, p. 148). Qualitative methods are usually described as inductive, with the underlying assumptions being that reality is a social construct, that variables are challenging to measure, complex and interwoven, that subject matter is prevalent and that the data collected will consist of an insider’s viewpoint (Rovai et al., 2014; Almalki, 2016).

In qualitative studies, researchers accept that they cannot separate themselves from the investigation by bringing their personal experiences, values, and perspectives (Jackson, 1990). In other words, qualitative researchers bring their bias to the research, share their bias with the reader, and strive to mitigate their personal bias to ensure that they are correctly interpreting the participant. Likewise, Denzin (1978) argued that researchers bring their personal beliefs in addition to the social and political environment, which “eliminates any possibility of conducting value-free research” (Fusch, Fusch, & Ness, 2018, p. 19). Relying on third-party evaluators is one way this study's primary researcher ensured the data collected was unbiased.

Qualitative data for this study were collected from a variety of sources. The pre-course and post-course surveys previously mentioned included open-ended questions, allowing students to articulate personal thoughts and feelings about various relevant topics in narrative form. In addition to the statistical data collected, the voluntary post-course practical exam allowed American Culinary Federation evaluators to enter observations in narrative form as well. Lastly, qualitative data were collected from Blackboard assignments – observed comparisons of in-person dish presentations and online photos of dish presentations, essay, and course portfolios, for example.

The pre-course survey included open-ended questions about students' access to and fluency using cell phones, tablets, laptops, and other smart devices. The pre-course survey also asked questions about students' perceptions of technology in education and their willingness to engage with the instructor, classmates, and course content through digital means. The post-course survey will asked many of the same questions to determine where there were similarities and differences, comparing perception (pre-course) with experience (post-course). These open-

ended survey questions were coded and mined for emerging themes as well as dissenting subjects.

The Concurrent Mixed Methods Research Plan includes the term ‘Quantitative Observation.’ What is meant by this is that the Food Production I students took part in an untimed knife skills practical exam, evaluated by American Culinary Federation certified evaluators. Each participant completed seven classical knife cuts assessed by the observation of the evaluators; in addition to the numeric scale used to assess participants’ cuts, evaluators recorded comments based on their observations. These comments were coded and mined for emerging themes as well as dissenting subjects. This summative knife skills practical exam compared culinary student productivity after the same instruction but differing instruction delivery. The same survey, observation, and exam procedure was carried out in the CUL 1303 Food Production II classes, covering dry, wet, and combination cooking methods.

### ***3.4.3 Triangulation***

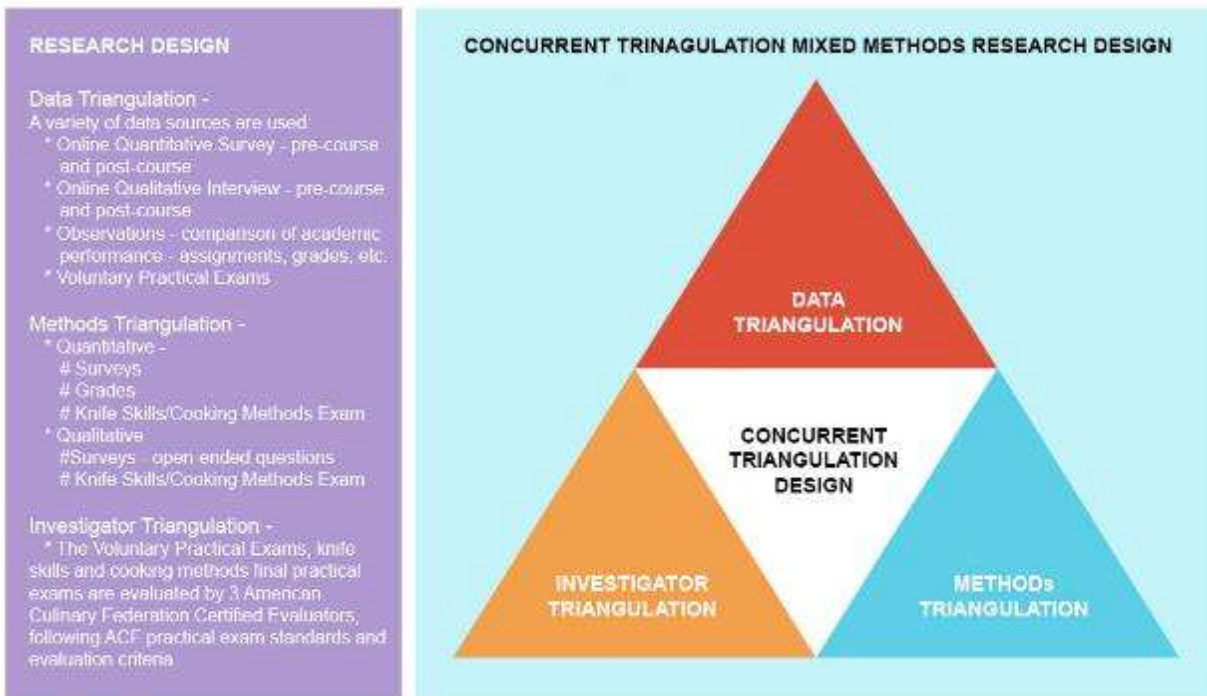
Data triangulation in a mixed-methods study is generally accepted as a strategy for validating results obtained with the particular method. A researcher, for instance, aims to bring a more accurate picture about a research issue by directly comparing the findings drawn from one method to those obtained from another for convergence or divergence (Dawadi, Shrestha, & Giri, 2021). Triangulation seeks convergence, corroboration, correspondence of results from different methods (Schoonenboom & Johnson, 2017).

“Triangulation is the principle behind the GPS or Global Positioning System technology. A GPS receiver processes radio signals sent from [various] satellites to determine longitude, latitude and altitude” (Hales, Peersman, & Kiwango, 2010, p. 12). Hales (2010) suggested that drawing from multiple inputs can provide a broader range of information and significantly more

comprehensive insight into the issues underlying the complex questions. Triangulation is broadly defined as "the combination of methodologies in the study of the same phenomenon" (Denzin, 1978, p. 291). Ndanu & Syombua (2015) defined triangulation as combining several research methods to study one thing. They overlap each other somewhat, being complimentary at times, contrary at others. "This has the effect of balancing each method out and giving a richer and hopefully truer account" (p. 3).

Department of the Army Field Manual 6-2, Artillery Survey, indicated that "triangulation is a method of extending survey control through the use of triangular figures. Measured horizontal angles and one measured side of the triangle serve as the basis for determining the length of the remaining sides. A wide range of combinations of known data exists with which required data may be determined... It is generally better to use triangulation in situations in which the distance involved or the terrain traverse is difficult or impossible. More detailed planning and reconnaissance is required for triangulation than for other methods" (Johnson & Lambert, 1965, p. 132). The manual continued, "the purpose of triangulation... is to determine the coordinates and height of an unknown point. The requirements for these computations are azimuth of the base, length of the base, value of the distance angles, and a vertical angle from one of the known points to the unknown point" (p. 137). This study incorporated a similar process for data collection and analysis. The known point is the list of learning objectives for the relevant culinary arts classes; the unknown points were the various surveys and questionnaires that provided data that seeks to illuminate the efficacy of online culinary arts education.

This study employed concurrent triangulation mixed methods research design (see Figure 3.9). Multiple data sources, multiple methods, and multiple investigators were merged to reveal the efficacy of postsecondary online culinary arts education.



**Figure 3.9:** Concurrent Triangulation Mixed Methods Research Design for Understanding the Efficacy of Online Postsecondary Culinary Arts Education, adapted from (Flick, 2018)

**Data triangulation** uses a variety of data sources, including time, space, and persons, in a study. Findings can be corroborated, and any weaknesses in the data can be compensated for by the strengths of other data, thereby increasing the validity and reliability of the results (Hales, Peersman, & Kiwango, 2010, p. 13). This study used:

- an online pre-course and post-course survey that includes open-ended questions,
- a comparison of academic data from the learning management system,
- and evaluator observations from an end-of-course practical exam following American Culinary Federation standards.

**Methods triangulation** is the use of multiple methods to study a situation or phenomenon. The intention is to decrease the deficiencies and biases that come from any single method. In other words, the strengths of one method may compensate for the weaknesses of another. This type of triangulation is very similar to the mixed methods approaches used in social

science research, where the results from one method are used to enhance, augment and clarify the results of another (Hales, Peersman, & Kiwango, 2010, p. 14). This study utilized both quantitative and qualitative research methods.

**Investigator triangulation** uses more than one investigator, interviewer, observer, researcher, or data analyst in a study. The ability to confirm findings across investigators — without prior discussion or collaboration between them — can significantly enhance the credibility of the results. Investigator triangulation is particularly important for decreasing bias in gathering, reporting, and analyzing study data (Hales, Peersman, & Kiwango, 2010, p. 15). This study engaged with several American Culinary Federation certified exam evaluators to assess post-course practical exam participants.

When triangulating the pre-course and post-course survey results, both qualitative and quantitative, parallel forms reliability should be obtained. This is significant, as the reliability and validity of any research are essential. The topics covered in the pre-course and post-course surveys ensured sampling validity, as multiple related issues were addressed. Employing the use of American Culinary Federation certified evaluators ensures inter-rater reliability. The practical knife skills and cooking exam results measured within the context of and including data from class performance will contribute to criterion-related validity.

#### ***3.4.4 Criticism***

“The process of mixing methods within one study... can add to the complexity of conducting research. It often requires more resources (time and personnel) and additional research training, as multidisciplinary research teams need to become conversant with alternative research paradigms and different approaches to sample selection, data collection, data analysis and data synthesis or integration” (Shorten & Smith, 2017, p. 75). Data collection and analysis

might be a very lengthy process. Therefore, it might be more expensive in terms of cost and time. Researchers usually struggle in designing their research within their estimated time and budgets (Fauser, 2018; Hauken, Larsen, & Holden, 2019).

Caruth (2013) indicated some weaknesses of mixed methods research include:

- a) they can be difficult for a single researcher, especially when the two designs are best used concurrently; in this case, the study might require a research team;
- b) they can be more time consuming and expensive when concurrency is involved;
- c) they require that the researcher(s) learn multiple methods to combine them knowledgeably, defend the use of multiple methods, utilize them professionally, etc.;
- d) they are not without conflict because methodological purists maintain that researchers should work within either a quantitative or a qualitative research design, never mixing the two methods in a single study (p. 115).

Critics of concurrent triangulation mixed methods research mentioned the amount of time and costs associated with the process of data collection, analysis, and interpretation as factors that make this research difficult (Malina et al., 2011; Miller et al., 2013; Silva, 2011). Also, Bryman (2007) conducted a case study consisting of 20 interviews with UK social researchers to conclude that the main barriers to greater widespread adoption are:

- (i) difficulties in integrating quantitative and qualitative data;
- (ii) methodological preferences;
- (iii) structure of research projects that are typically built to deal essentially with quantitative data;

- (iv) time-consuming process;
- (v) skill specialism;
- (vi) publication issues, since some journals give preference to quantitative or qualitative research studies over mixed methods.

Other issues surrounding concurrent triangulation mixed methods research include researcher confidence about bringing together data collected from different sources and methods (Dawadi, Shrestha, & Giri, 2021). Casey et al. (2016) indicated that there is little literature providing guidance on merging data from different sources. Also, a challenge may arise when the findings drawn from one method contradict those from the other method, questioning the reliability and validity of one method (Salehi & Golafshani, 2010). Furthermore, mixing data from different sources can sometimes lead a researcher nowhere (Dawadi, Shrestha, & Giri, 2021).

Despite the challenges and criticisms, “various paradigms are beginning to interbreed such that two theories previously thought to be in irreconcilable conflict may now appear, under a different theoretical rubric, to be informing one another's arguments” (Dawadi, Shrestha, & Giri, 2021, p. 33). Concurrent triangulation mixed methods research design will render rich findings that may inform the foodservice industry and reshape the trajectory of education within the foodservice industry.

### **3.5 Research Implementation**

“Simply put, qualitative data involve words while quantitative data come in the form of numbers” (Bowen, 2005, p. 219). The concurrent triangulation mixed methods research of this study included both qualitative and quantitative data. Statistical numbers derive from surveys, academic performance, and evaluator scores from practical exams. Narrative data were collected

from open-ended questions included in each survey, documented observations, and evaluator comments. This will locate the experience of the study participants (Kirsch & Ritchie, 1995).

### **3.5.1 Purpose**

The purpose of this study is to discover the efficacy of online postsecondary culinary arts education, addressing the overarching research hypothesis:

*If the course is designed with student engagement and learning objectives/knowledge and skill competencies in mind, an online practical culinary arts course can be designed and delivered effectively and efficiently, satisfying students, faculty, and accrediting organizations.*

To understand the efficacy of online postsecondary culinary arts education, the following research questions will be examined:

1. How can practical (hands-on) culinary arts education be delivered effectively in an online environment?
2. In an online culinary arts program, what methods can faculty use to maintain student engagement and presence?
3. How is online culinary arts education perceived by students, faculty, and accrediting organizations?

This research can make a significant impact on training and education in the culinary arts industry. The master-apprentice model of in-person culinary training has been the only method of culinary training for thousands of years. The marriage of this traditional training method with interactive technologies must be considered to continue formal culinary arts education. This study explores three iterations of 2 culinary courses traditionally delivered via in-person instruction. The first iteration examined automated online delivery. The course was offered as

static content in a learning management system (this study will use Blackboard); the only contact between student and instructor will be student-initiated questions asked via text or email. The second iteration investigated hybrid online delivery. The course was offered as static content in a learning management system with the addition of a weekly video-conferencing session, allowing synchronous attendees to interact with the instructor in real-time. However, text and email communication continue to be an option. The third iteration offered synchronous online delivery. The course content was present within a learning management system. However, a synchronous video-conference session were a weekly feature of the course, with real-time demonstrations of culinary techniques and methods by the instructor and observed practice by students, each receiving real-time feedback, mimicking in-person instruction.

The intent of this study was to determine whether or not online delivery of practical culinary instruction can be offered and executed effectively and efficiently. Furthermore, the perceptions of students, faculty, employers of students, and accrediting organizations, specifically the American Culinary Federation and the World Association of Chefs Societies, were ascertained and considered. The results, analysis, and recommendations based on the findings of this study could change the course of culinary education in the future.

### ***3.5.2 Location***

Devers and Frankel (2000) suggested: “some types of research, the sites may be obvious (e.g., demonstration sites for adult primary care teams) or existing data (quantitative as well as qualitative) as are the source of information that may facilitate the identification of sites (e.g., professional associations, newsletter, trade magazines)” (p. 266). The site for this study was the Culinary Arts and Hospitality Management Institute at the University of Arkansas Pulaski Technical College in Little Rock, Arkansas (see Figure 1). This culinary school is “a world-class

culinary, baking and pastry, hospitality, and wine training center with highly skilled faculty and staff committed to providing you with the positive, comprehensive, and challenging hands-on experience you need to prepare for a variety of exciting positions in the culinary, baking and pastry, and hospitality fields” (Culinary Arts and Hospitality, 2021). The following video (see Video 3.1) describes the Culinary Arts and Hospitality Management Institute at the University of Arkansas Pulaski Technical College, specifically focusing on hands-on curricula (0:43) and (2:48), employment opportunities (3:20), and growing enrollment (4:30).



*Video 3.1: University of Arkansas Pulaski Technical College, Culinary Arts and Hospitality Management Institute (Culinary Arts and Hospitality, 2021)*

UAPTC-CAHMI educates 300+ culinary arts, baking and pastry arts, hospitality management, and 3D (a program that offers young adults with intellectual and developmental disabilities postsecondary education and preparation for employment), offering a wide variety of certificates of completion, certificates of proficiency, technical certificates, and associate of arts degrees. The research for this study was conducted in the culinary arts program, specifically Food Production I and Food Production II (see Figure 3.10). Food Production I focuses primarily on foodservice safety, sanitation, professionalism, and classical knife skills. Food Production II

builds on Food I by adding professional cooking methods and techniques as part of a scaffolded educational plan.



**Figure 3.10:** Culinary students Shantal Brown, Timothy Hulum, Kiara Ford, and Antoine Curry learn about plating meals from Executive Chef Robert Hall. All instructors have top certifications in their fields and real-world experience. Photo by Kelly Quinn (Boulden, 2017).

### 3.5.3 Course Structure

The research site based its curriculum on the American Culinary Federation Education Foundation's list of required knowledge and skill competencies (see Appendix C). Stefan Ryll (2017) suggested, “Culinary arts school graduates need a range of competencies to perform effectively in the industry” (p. 3). Lab demonstrations were recorded by the lead culinary instructor using a quasi-professional setup in the Celebrity Chef Theater at the culinary school at the University of Arkansas Pulaski Technical College (see Figure 3.11). Multiple 4k ultra-HD cameras, a Nikon DSLR camera, and professional box lighting was used. The raw video footage was captured and stored on a Seagate 5Tb external hard drive. Pinnacle Studio Pro 23 was the

video editing software used to create the final video productions. Each video was uploaded to a public YouTube channel and embedded in the appropriate Blackboard module, thus minimizing Blackboard's memory usage. While students needed nothing more than a cell phone, a few students created a similar studio setting in their own homes for all of their photo and video lab assignments (see Figure 3.12).



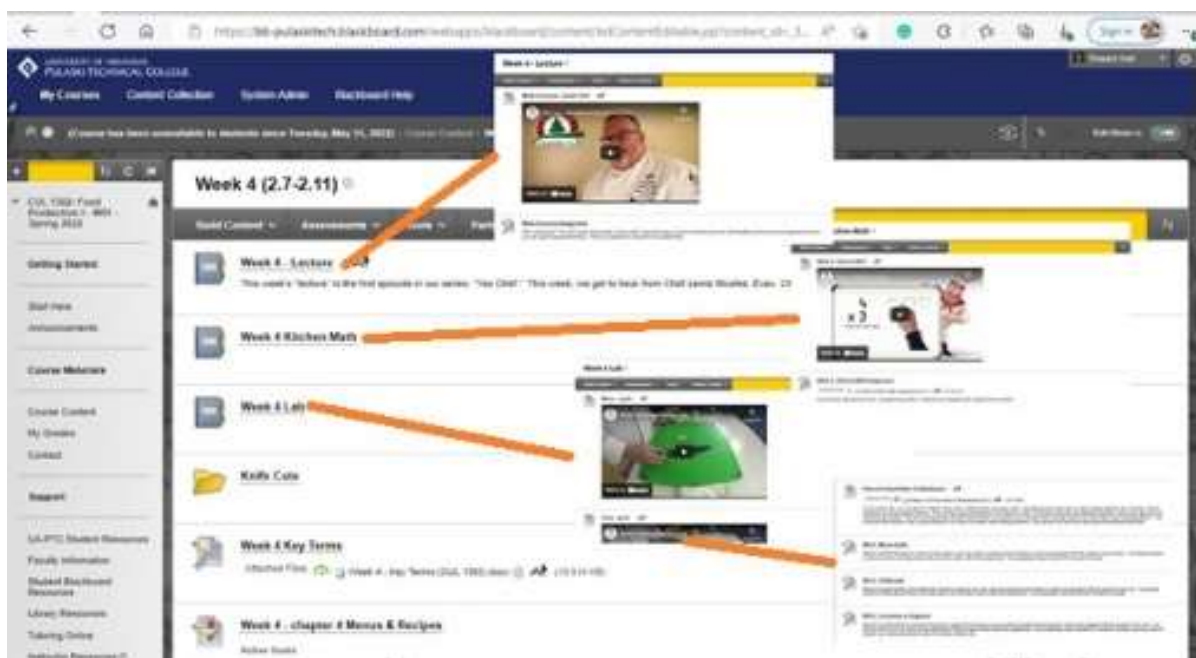
**Figure 3.11:** Video recording setup in the Celebrity Chef Theater, UAPTC-CAHMI (Author's Work).



*Figure 3.12: A student's home studio for CUL 1302 Food Production I Blackboard lab assignments (Author's Work).*

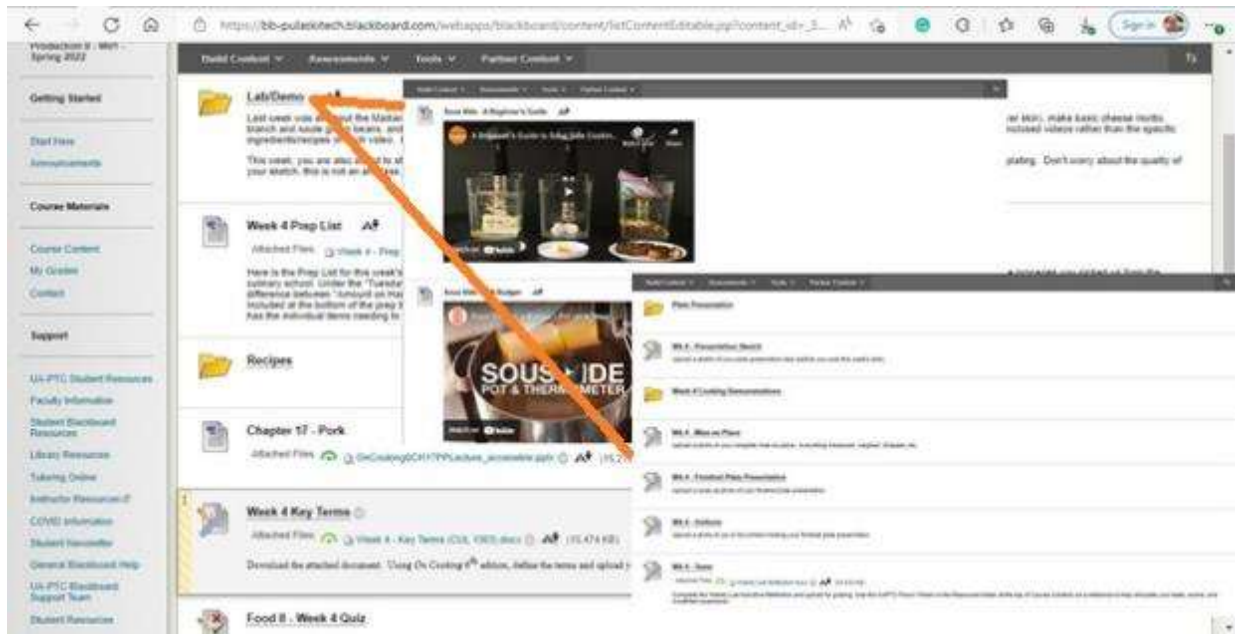
Food Production I was a course that focused on foodservice professionalism and professional knife skills. The semester-long course included 15 weekly modules; each weekly module followed the same structure and format (see Figure 3.13). There were “Yes Chef” videos (pre-recorded and edited guest chef interviews meant to teach, motivate, and encourage beginning culinary students), kitchen math assignments (introducing students to the math required to scale recipes and cost menus), lab demonstrations and assignments (pre-recorded skill demonstrations aligned with in-person lab demonstrations and assignments link for students to post pictures or simple video captures of skill practice), recipes for students to utilize lab product, weekly key terms (document to download with simple terms to define, and a weekly quiz. All the course material in Blackboard was identical in the online and in-person course

sections except for the lab assignments; in-person student production was evaluated in person, while online students uploaded pictures or videos as assigned.



**Figure 3.13:** CUL 1302 Food Production I Blackboard Course Content, Week 4 (Author's Work).

Food Production II was a course that continued the focus on foodservice professionalism and added cooking techniques and methods and an introduction to plate presentation. The semester-long course included 15 weekly modules; each weekly module followed the same structure and format (see Figure 3.14). There were “Yes Chef” videos (pre-recorded and edited guest chef interviews meant to teach, motivate, and encourage beginning culinary students), kitchen math assignments (introducing students to the math required to scale recipes and cost menus), lab demonstrations videos, recipes, weekly key terms, and a weekly quiz. All the course material in Blackboard was identical in the online and in-person course sections except for the lab assignments; in-person student production was evaluated in person, while online students uploaded specific graded artifacts.



*Figure 3.14: CUL 1303 Food Production II Blackboard Course Content, Week 4 (Author's Work).*

Each week's lab assignment in Food II included the same five components:

1. **Plate Presentation Idea** – students were required to begin the weekly lab by considering the ingredients and cooking method for the week, visualizing a plate design based on the week's discussion of plate presentation principles, and drawing a sketch of their plate presentation idea. The grade was awarded for completing this assignment, not based on artistic skill or ability (see Figure 3.15).



*Figure 3.15: Sample Plate Presentation Idea Sketch, CUL 1302 Food Production II (Author's Work).*

2. **Mise en Place** – French for “everything put into place,” students were required to upload a photo of their completed mise en place for the week’s lab – product weighed, measured, chopped, sliced, or diced, pots, pans, cutting boards, and utensils. The grade was calculated on the completeness of the mise en place and the sanitation of their area (see Figure 3.16).



*Figure 3.16: Sample Mise en Place, CUL 1302 Food Production II (Author's Work).*

3. **Final Plate Presentation** – after preparing every component of the week’s lab assignment (protein, starch, vegetable(s), and sauce), students were required to upload a picture of their final plate presentation (see Figure 3.17). Often, the final plate would be presented very similar to the plate presentation idea they sketched; sometimes, the final plate presentation was different. They had the opportunity to discuss these similarities or differences in the final weekly lab submission.



*Figure 3.17: Sample Final Plate Presentation, CUL 1302 Food Production II (Author's Work).*

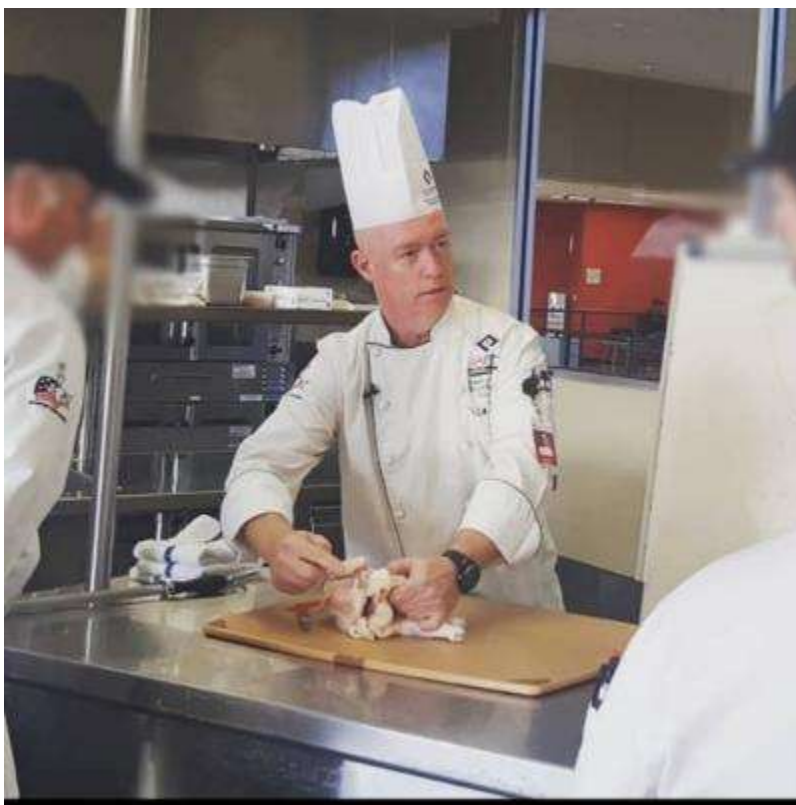
4. **Plate in Uniform** – even in the online environment, students were expected to work in their student culinarian uniform. They were expected to keep their uniform clean and reflect that on their Plate in uniform picture (see Figure 3.18)



*Figure 3.18: Sample Plate Presentation in Uniform, CUL 1302 Food Production II, only partial uniform visible (Author's Work).*

5. **Weekly Reflection, including Taste Description** – Students were required to complete a Weekly Narrative Reflection (see Appendix C), describing preparation for the lab assignment, their work process, and general insights, impressions, and lessons learned from the week’s assignment. A vital component of the Weekly Narrative Reflection was the Taste description on the second page; students were encouraged to use the UAPTC Flavor Wheel as a starting point for developing a vocabulary for describing taste perception (see Appendix D). In this section of the Weekly Narrative Reflection, students were expected to describe their taste, mouthfeel, and aroma perception. At this stage, students were not asked to prepare dishes to a specific taste profile, so having the Chef in-person to taste was unnecessary. The goal here was to help students develop a taste perception vocabulary. It was anticipated that developing a taste perception vocabulary and the ability to articulate one’s taste experience would facilitate taste standardization in the advanced kitchen production courses.

The course content and materials for the in-person and online classes were identical. The video-recorded demonstrations were included in both course delivery methods to provide students a resource to review as often as desired. Students in the in-person sections received skill instruction and demonstration in the classroom (see Figure 3.19). Students in the Automated Online and Hybrid Online course sections relied on the video-recorded demonstrations loaded in each weekly module in Blackboard. Students in the Synchronous Online section were able to see the week’s lab demonstration and interact with the instructor and each other, just like in an in-person class (see Figure 3.20).



**Figure 3.19:** Chef Hall demonstrated basic chicken fabrication, CUL 1302 Food Production I (Author's Work).



**Figure 3.20:** Chef Hall demonstrated basic knife skills on ZOOM, CUL 1302 Food Production I (Author's Work).

While there were several video conferencing software options, ZOOM was the video conference format of choice for this study. ZOOM was free and accessible to the students

participating and allowed for spotlighting each student's video feed (see Figure 3.21).

Spotlighting each student's video feed allowed participants to receive real-time comments and corrective feedback on cuts (CUL 1302 Food Production I) and cooking technique (CUL 1303 Food Production II).



**Figure 3.21:** A student's spotlighted video feed during knife skills instruction and practice on ZOOM, CUL 1302 Food Production I (Author's Work).

#### **3.5.4 Participants**

Namageyo-Funa et al. (2014) stated, “successful participant recruitment is an important aspect of conducting qualitative research. Determining the most effective recruitment methods suited for a qualitative research study may appear challenging for researchers” (p. 1). For this mixed-methods study, participants self-selected, choosing either an in-person or online course section. Participation in the study came from volunteer self-selection from the in-person and online instructed students in Food Production I and Food Production II, respectively. All students in both courses received an invitation via email to participate in the pre-course survey, post-course survey, and end-of-semester practical exam, beginning with an Informed Consent form (see Appendix E).

While “researchers can involve themselves in settings where subjects are likely to be located” ((Namageyo-Funa et al., 2014, p. 266), the lead investigator of this study is not the only instructor of the two courses from which this study originates. The only incentive for participation in this study was the possibility of extra credit. Participants were asked to send a screenshot of the confirmation of completion page of the Survey Monkey pre-course and post-course surveys to receive the extra credit, extra credit that will not exceed 2.5% of a course’s total points possible.

“In any research study, the best strategy is to investigate the problem in the whole population. But practically, it is always not possible to study the entire population. Alternatively, we study a ‘sample’ that is sufficiently large and representative of the entire population. A sample is a subset of the population, selected so as to be representative of the larger population” (Acharya, Prakash, & Saxena, 2013, p. 330). George (2009) defined sampling as “the selection of part of an aggregate or totality, on the basis of which a judgement or inference about the aggregate or totality is made” (p. 42).

Of the 207 students enrolled in culinary arts courses, 53 students enrolled in Food Production I, with 32 taking the course in person and 21 online. Only 12 students enrolled in Food Production II, with six taking the course in person and six taking the course online. It was anticipated that participation in the pre-course and post-course surveys will be 35% of enrollment and participation in the final practical exam will be 50% of enrollment, which would meet statistical generalization (Tripepi, Jager, Dekker, & Zoccali, 2010), “survey sampling in which the resulting sample must be statistically representative of the source population” (p. 94).

While “each individual in the population has an equal probability of being selected” (Creswell & Creswell, Research Design, 2018, p. 150), including self-selection. The population

of this study included a broad range of demographics: male and female, ages 18 to 70+, unemployed to full-time employed, and have a variety of motivations and access to technology.

### ***3.5.5 Participant Compensation***

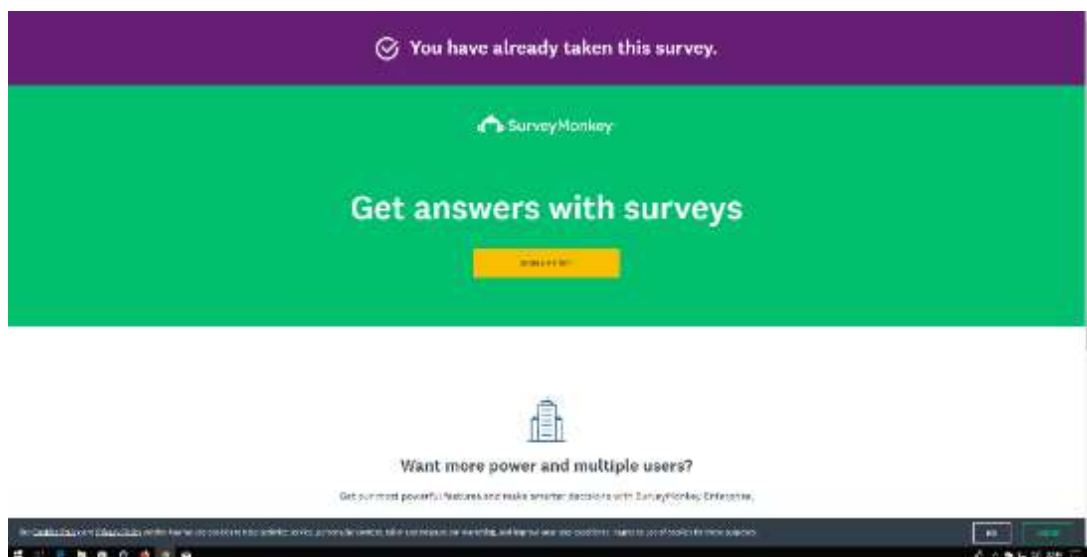
“In spite of the demonstrated importance of financial compensation as a motivator, ethicists and regulatory bodies have raised ethical concerns related to paying subjects to caution against, and even restrict, its widespread use” (Russell, Moralejo, & Burgess, 2000, p. 126). In this study, there was not financial compensation for participation. Enrolled students who volunteered to participate in the study pay their own tuition and fees, fees that will provide the product required to execute weekly lab assignments and exams. The only incentive to participate in this study was extra credit for completing the pre-course and post-course surveys and the practical exam.

### ***3.5.6 Ensuring Confidentiality***

“What researchers can do is to ensure they do not disclose identifiable information about participants and to try to protect the identity of research participants through various processes designed to anonymize them” (Wiles, Crow, Heath, & Charles, 2006, p. 3). Why are anonymity and confidentiality so important?

“Breaching confidentiality may expose informants to harm. It also reduces the trust that is required when collecting valuable data, especially in qualitative research and research with vulnerable participants. Furthermore, it may undermine the researcher’s credibility and ability to conduct research and future studies in given community. In addition, it demonstrates a lack of respect for the informants by ignoring his or her privacy” (Surmiak, 2020, p. 230).

The pre-course and post-course survey were conducted through an online format, via Survey Monkey. While the invitations to take the surveys were disseminated in emails to students, the emails were communicated through mass distribution and not to individual students. The invitation emails included a link to each survey, which was taken anonymously. Students were asked to email a screenshot of the confirmation of completion page for the extra credit offered as an incentive to participate, which does not include any information that will tie a participant to an individual survey (see Figure 3.22).



**Figure 3.22:** SurveyMonkey Confirmation of Completion eMail Image for Extra Credit (PIMAX VR, 2019)

The surveys in SurveyMonkey contained no questions that would lead to the identification of a specific participant. American Culinary Federation certified evaluators assessed the end-of-semester practical exams; unattached to individual students and the particular courses; evaluators did not know the names of exam participants and were not able to identify the students instructed in-person or online.

### 3.6 Reliability & Validity

“Bias is any error resulting from methods used by the investigator to recruit individuals for the study, from factors affecting the study participation (selection bias) or

from systematic distortions when collecting information (information bias). More generally, bias is any deviation in the collection, analysis, interpretation and publication of data leading to conclusions that systematically underestimate or overestimate... any outcome” (Tripepi, Jager, Dekker, & Zoccali, 2010, p. 95).

To prevent selection bias, 100% of the population (all Food Production I and Food Production II students) were invited to participate in the study. The only incentive was extra credit, which did not exceed 2.5% of the total points possible in the course. Including only course averages from among all students, maintaining anonymity among all records and findings, and using outside evaluators helped to prevent information bias. However, some biases may still exist.

“Both quantitative and qualitative researchers acknowledge that the potential for bias exists in research. However, quantitative and qualitative researchers often take different positions on the likelihood of bias impacting their research. Different points of view are also taken on the likelihood of success in controlling bias in research. Quantitative researchers promote objectivity as a fundamental aspect of science and contend that it is possible to answer research questions without bias invalidating the results. Qualitative researchers contend that bias is inherent, yet can be described clearly enough to allow the reader to judge if bias has inappropriately influenced the research” (Sampson, 2012, p. 8).

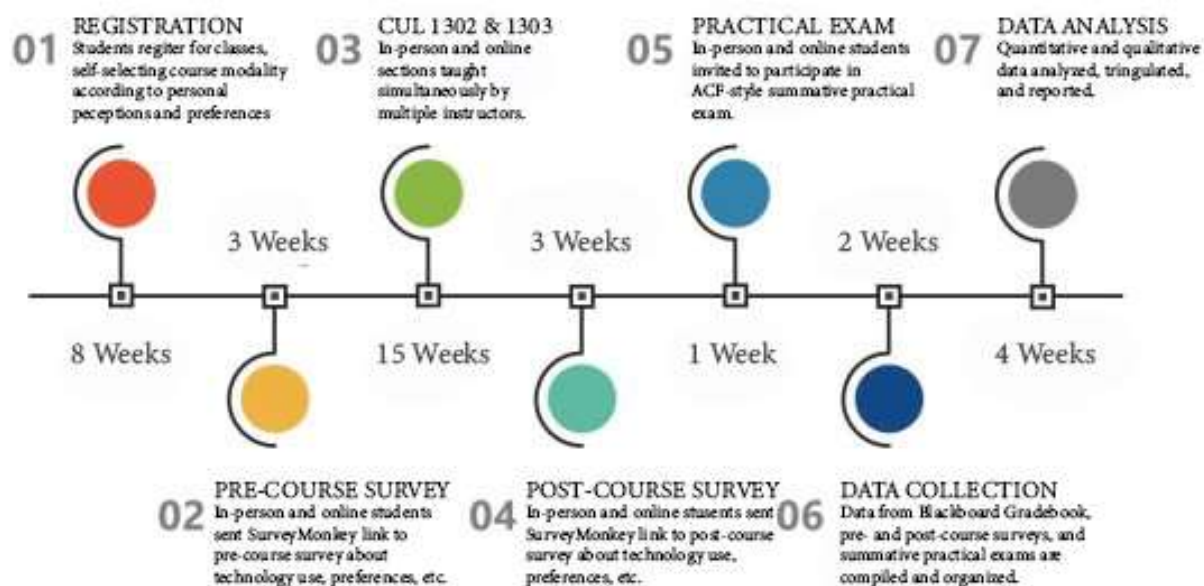
Volunteer participants may present a self-selection bias. For example, perhaps it is possible that students participated only to earn the extra credit offered as the incentive for participation. However, researchers have suggested that opportunities for earning extra credit have little effect on motivating students (Noble & Phillips, 2004; Tuzovic & Harmon, 2015;

Dalakas & Stewart, 2020). Since the amount of extra credit offered represents such a small number of points in relation to the total points possible in each course, self-selection bias for the reason of earning extra credit seems to be insignificant; while some may have chosen to participate to receive extra credit, the amount of extra credit is not grade-altering credit, thus minimizing self-selection bias for extra credit. Students that self-selected to participate in any survey to win some favor with the course instructor learned when opening each survey that their participation is anonymous, sending no specific identifying information to the instructor. Also, students who self-selected to participate in a post-course practical exam understood before the exam that outside evaluators assessed the practical exam, not the instructor, further maintaining student anonymity.

George (2009) posited that a test is valid if it meets the purpose for which it was designed. The test of this study is to determine how to deliver online postsecondary culinary arts education effectively. Various course designs were studied and compared. Based on survey responses, student assignment performance, and practical exams, this research illuminated the most effective course design. “A study with high internal validity will allow you to conclude that an effect is actually due to a particular cause, and not due to alternative confounding explanations” (Bergin, 2018, p. 26).

### **3.7 Data Collection Plan**

This study took place during four 15-week semesters (see Figure 3.23). There are several sections of Food Production I and Food Production II each semester. Several instructors teach the many sections offered, each agreeing to assist the investigator of this study, providing student data with student identification information redacted.



*Figure 3.23: Efficacy of Online Culinary Arts Education Research Timeline.*

There was overlap of elements of the research timeline. Registration for a given semester occurs during the proceeding semester. The pre-course survey was open during the first three weeks of the semester. The post-course survey opened during the final three weeks of the semester. The summative end-of-course practical exam took place during the last week of the semester. Data collection and organization occurred during the weeks that separate one semester from the next. Data analysis took place at the end of four semesters (two academic years).

The data collected allowed for a comparison of the performance of students instructed in-person and online. During-semester academic performance records were taken from Blackboard, the learning management system used by the University of Arkansas Pulaski Technical College. Each course schedule shows the continuity among course requirements and graded activities, regardless of delivery method (see Appendix F).

The SurveyMonkey link to each pre-course and post-course survey (see Figure 3.24 and Figure 3.25) were sent via email to all students in the population (those enrolled in each section

of Food Production I and Food Production II). While the same survey was used for each semester, separate surveys were created to compare students within the same semester, thus avoiding data dilution by comparing students enrolled in a specific semester with students enrolled in different semesters.

3. Rate your personal thoughts/feelings about the following:

	Disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Agree
Online learning is convenient.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning is harder than face to face.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning requires more self-discipline.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning offers more freedom/flexibility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning requires the same time commitment as face to face.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Figure 3.24:** A sample of one pre-course and post-course quantitative survey question (Author's Work).

5. Before taking this course, what was your impression of online learning?

6. After taking this course, what are your impressions of online learning?

7. What were the advantages of this online course?

**Figure 3.25:** A sample of pre-course and post-course qualitative survey questions (Author's Work).

The pre-course survey (see Appendix G) contains 45 5-Likert scale questions, nine 3-Likert scale questions, seven open-ended questions, four questions to rate personal preferences, and 11 demographic questions. The demographic questions allowed for the stratification of survey responses; all other questions explore planning and preparation for online learning and individual perceptions. The post-course survey (see Appendix H) contained 45 5-Likert scale

questions, nine 3-Likert scale questions, 19 open-ended questions, five questions to rate personal preferences, and 11 demographic questions. Most of the questions in the post-course survey are identical to the pre-course survey; this revealed changing perceptions of online learning after students have spent a semester immersed in any one of the online course iterations.

A summative practical exam (see Figure 3.26) is an integral aspect of this study. Assessed by American Culinary Federation certified evaluators, students instructed by both modalities, in-person and online, gathered in-person for a practical exam. “The test is essentially based upon students' ability to demonstrate basic culinary skills with specific practical requirements within the allotted time” (Williams, 2008, p. 12).

## Knife Skills Practical Exam Evaluation Scoresheet

*This exam is part of doctoral research for Chef Robert Hall, WCRC, CEC, CCA, MEd and is NOT for credit.*

Name: \_\_\_\_\_ ID#: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

### Domain I - Safety and Sanitation

☐ Acceptable

☐ Unacceptable

*Comments/Signature/Initials*

Rating Scale	
<i>Score represents an average of 1-10</i>	
1 - 2.0	Incorrect Cut (not consistent)
2.1 - 3.0	Chopped/finned/No Uniformity
3.1 - 4.0	Minor Deficiencies
5.0 - 7.0	Acceptable/Some Inconsistency
8.0 - 9.0	Professional/Very Consistent
9.5 - 10	Perfect/Master-like

Domain I - Professionalism - 10%	WV	Ex #1 Score (1-10)	Ex #2 Score (1-10)	Ex #3 Score (1-10)	Weighted Value (calculated)	
Uniform	1				#DIV/0!	
Organization	2				#DIV/0!	
Blouse/apron	3				#DIV/0!	
Time Management	5				#DIV/0!	
Safety	1				#DIV/0!	
Sanitation	1				#DIV/0!	
Possible Points					20.0	
Points Awarded					#DIV/0!	

*CYMONEN 13 (required if score is 7.4 or less)*

Domain III - Cookmanship Skills - 70%	WV	Ex #1 Score (1-10)	Ex #2 Score (1-10)	Ex #3 Score (1-10)	Weighted Value (calculated)	
Dice - Onion (1/2 cup)						
Knife Handling/Technique	1				#DIV/0!	
Uniformity/Consistency	5				#DIV/0!	
Rondelle - Carrot (1/4")						
Knife Handling/Technique	1				#DIV/0!	
Uniformity/Consistency	5				#DIV/0!	
Julienne - Carrot (1/2", 45° angles)						
Knife Handling/Technique	5				#DIV/0!	
Uniformity/Consistency	4				#DIV/0!	
Garnis Supremes - Orange						
Knife Handling/Technique	1				#DIV/0!	
Uniformity/Consistency	1				#DIV/0!	
Batonnet - Potato						
Knife Handling/Technique	1				#DIV/0!	
Uniformity/Consistency	1				#DIV/0!	
Medium Dice - Potato (1/2 cup)						
Knife Handling/Technique	1				#DIV/0!	
Uniformity/Consistency	5				#DIV/0!	
Fine Dice - Potato (8 pieces)						
Knife Handling/Technique	5				#DIV/0!	
Uniformity/Consistency	4				#DIV/0!	
Possible Points					20.0	
Points Awarded					#DIV/0!	

**Figure 3.26: Summative Knife Skills Exam Evaluation Scoresheet for Online Culinary Arts Education Practical Exam (Author's Work).**

According to Williams (2008), practical exams require students:

- to learn cooking methods and principles without rote memorization
- to apply expected learning over a set period of time
- to demonstrate expected learning through critical thinking and application

While practical exams are an essential summative assessment in any culinary class, the practical exam of this study is for comparative analysis only. It had minimal impact on the participants' academic grade, as extra credit (not more than 2.5% of the total grade) is awarded for participation. American Culinary Federation certified evaluators assessed the summative practical exam who have received rigorous training to become certified evaluators. Each certified evaluator attended a training course, evaluated at least four practical exams under a certified mentor evaluator, maintains continuing education, and evaluates at least one practical exam per year after being certified.

### **3.8 Data Analysis Plan**

Qualitative data derived from the open-ended questions on the pre-course and post-course surveys, comments made by practical exam evaluators, and written observations of course instructors. Taylor-Powell and Renner (2003) posited analyzing qualitative data by:

1. Getting to know the data by reading and re-reading the data collected
2. Focusing the data by organizing according to time, topic, or event
3. Categorizing the data by identifying themes or patterns and organizing them into coherent categories (Taylor-Powell & Renner, 2003, p. 2).

It was previously anticipated that participants' open-ended responses to survey questions would be limited to one-word answers or short phrases. The researcher analyzed all data through review and no software of specific analysis tools were necessary. Simple identification of repeated words, themes, or patterns were discerned through researcher analysis. The researcher utilized the technique of inductive analysis. "Inductive analysis means that the patterns, themes, and categories of analysis come from the data; they emerge out of the data rather than being imposed on them prior to data collection and analysis" (Bowen, 2005, p. 217).

The quantitative data were analyzed using descriptive statistics (numerical counts and frequencies, percentages, measures of central tendency, and measures of variability) (Taylor-Powell, 2000). Microsoft Excel was used to analyze the quantitative data collected. A variety of variables were considered in the study. “Variables are the important components in data presentation, problem questions, and representation of the certain concept and variable” (Disman, Ali, & Barliana, 2017, p. 50). Demographic characteristics (Creswell & Creswell, 2018), for example, were stratified (Acharya, Prakash, & Saxena, 2013) in the analysis to understand the entire population.

“These variables also enable researchers to explore not only the quantified diversity of student populations, but also how that diversity affects a student’s experiences... Qualitative studies that seek to understand students’ experiences... benefit from the multiple lenses that come from different genders, ethnicities, and races, as well as intersections between different demographic subcomponents. Overall, demographic data is a powerful tool for understanding the relationship between how students experience... education, and how... education treats students” (Fernandez et al., 2016, p. 6).

## **CHAPTER 4: RESULTS AND FINDINGS**

### **4.1 Introduction**

Graue (2015) said, “Research is creating new knowledge. Therefore, conducting research is the logical consequence to the emergence of a question that has not yet been answered. Research can either analyze an already examined phenomenon further or approach a completely new one” (p. 5). This study sought to do the latter – examine a new phenomenon by analyzing multiple online culinary arts course delivery formats. The emphasis on different online delivery formats is important because as Ipek and Mutlu (2022) claim, “Teachers and students have made the transition to distance education, which can be described as teaching/learning process at any time and any place using technological tools; therefore, time and place have lost its importance as in face-to-face education” (p. 105).

Driscoll et al., (2012) stated, “The effectiveness of the learning environment created within the context of an online course is also highly influenced by course structure. A clear course design and layout are essential elements of an effective online learning environment. As online learning is new to many students, understanding expectations, requirements, and how to access course materials can often be a challenge. A clear and simple course organization can help students overcome that challenge” (p. 316).

This study included designing an online section of two courses at the University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute, CUL 1302 Food Production I and CUL 1303 Food Production II. The study included three different delivery formats of the online course – Automated Online, Hybrid Online, and Synchronous Online. The purpose of the study was to understand the efficacy of online postsecondary culinary arts education and sought to answer the following research questions:

*RQ1: How can practical (hands-on) culinary arts education be delivered effectively in an online environment?*

*RQ2: In an online culinary arts program, what methods can faculty use to maintain student engagement and presence?*

*RQ3: How is online culinary arts education perceived by students, faculty, and accrediting organizations?*

This section will first describe the implementation of the study and its participants. The results of the study will then be presented with quantitative and qualitative data outlined for each survey, evaluation, and exam studied. This section will conclude with a discussion of the findings and the data's correlation to the study's research questions.

## **4.2 Implementation**

Peters et al. (2013) defined the word “implement” as coming from the Latin “implere,” meaning to fulfill or to carry into effect. They further suggested that “implementation research seeks to understand and work within real-world conditions, rather than trying to control for these conditions or remove their influence as causal effects.” This definition and suggestion were applied to this study – to fully carry into effect the work of understanding real-world conditions rather than controlling conditions to render specific findings.

Food Production I was the first practical, hands-on lab class in one's pursuit of a certificate of proficiency, technical certificate, or associate of applied science degree. Students were introduced to principles of foodservice industry professionalism, kitchen safety and sanitation, culinary math, and professional knife skills. Food Production II was the next course in the sequence of culinary arts classes. Students learned and practiced the main cooking methods,

like sear, grill, poach, and sauté. These two courses constituted fundamental culinary arts education.

Each course iteration (see Figure 3.5) employed the Culinary Learning Model (see Figure 3.4), in which students read, watched, practiced, adjusted, and applied new knowledge and skills. In-person and online courses were designed identically. In other words, both delivery methods included the same syllabi, the same course content in Blackboard (the learning management system used by the University of Arkansas Pulaski Technical College), the same assignments, and the same evaluations, quizzes, and exams. In-person student work was assessed in the classroom and at the moment of production; online student work was assessed online, using photos and videos of production and written narrative reflections of student experiences.

The first iteration of each course was the Automated Online delivery of course material. This iteration was completely asynchronous; the only interaction between instructor and student consisted of periodic emails and Blackboard course announcements intended to keep students working independently on course assignments within a specific time progression and sequence. When a student encountered a problem or had a question, they emailed or texted the instructor and waited until a response was sent, sometimes waiting several days.

The second iteration, Hybrid Online, included all of the same course material, designed the same as the Automated Online, but incorporated an optional, weekly ZOOM session. The ZOOM session allowed students to gather at the same time, similar to an in-person class, ask questions, and receive answers in real-time, and interact with each other. Each ZOOM session was recorded and uploaded to Blackboard for review later, especially by those unable to attend the live ZOOM session. Students, as a group, received instructor feedback on the previous week's production and skill practice during each ZOOM session.

The final iteration was Synchronous Online, which included the same Blackboard design as the Automated Online and the Hybrid Online. Similar to the Hybrid Online iteration, there was a weekly ZOOM session. However, the ZOOM session of this iteration was a fully synchronous online cooking experience. The instructor, equipped with a laptop and multiple cameras, cut or cooked simultaneously with the students. The only differences between this iteration and in-person delivery of course material are the distance that separated instructor and students and the fact that students were working in either their home kitchens or in another commercial kitchen (some students attended the weekly ZOOM session from a working kitchen). Evaluation, correction, and feedback were in the moment; students were not required to wait days for feedback.

Both in-person sections and online sections had the same course learning objectives (see Appendix I). Each modality followed the same scaffolded learning structure (culinary skills-building each week on skills learned in previous weeks) and weekly course schedule (see Appendix F).

In addition to the study of course design and delivery modality for effective online fundamental culinary arts education, the effect of engagement was assessed by evaluating grades and Blackboard presence. Perceptions of students, educators, and accreditors were examined through surveys that collected quantitative and qualitative data. “When used in combination, both quantitative and qualitative data yield a more complete analysis, and they complement each other” (Creswell, Fetters, & Ivankova, 2004).

### 4.3 Participation

Students, American Culinary Federation exam evaluators, culinary school educators, and culinary school accreditors were invited to voluntarily participate in this study. The following sections outline the participation of each data source.

#### 4.3.1 Food I and Food II Pre-Course and Post-Course Surveys

During this study, 177 students were enrolled in Food Production I and 59 were enrolled in Food Production II (see Table 4.1). 119 (50.4% of the total enrollment) students took the pre-course survey. 108 (45.8% of the total enrollment) took the post-course survey.

Pre-Course and Post-Course Survey Participation									
	Total CUL Enrollment	Food I Enrollment	Food II Enrollment	Food I & Food II Total Enrollment	Food I & Food II % of Total Enrollment	Pre-Course Survey	% Participation in Pre-Course Survey	Post-Course Survey	% Participation in Post-Course Survey
Fall 2020	122	43	0	43	35.2%	12	27.9%	16	37.2%
Spring 2021	117	41	21	62	53.0%	24	38.7%	30	48.4%
Summer 2021	40	5	6	11	27.5%	11	100.0%	9	81.8%
Fall 2021	128	52	20	72	56.3%	44	61.1%	31	43.1%
Spring 2022	120	36	12	48	40.0%	28	58.3%	22	45.8%
<b>TOTAL</b>		<b>177</b>	<b>59</b>	<b>236</b>	<b>44.8%</b>	<b>119</b>	<b>50.4%</b>	<b>108</b>	<b>45.8%</b>

**Table 4.1:** Total culinary school enrollment, Total CUL 1302 and CUL 1303 enrollment, and number/percentage of students who participated in the research pre-course and post-course surveys (Author's Work).

#### 4.3.2 Food Production I and Food Production II Study Final Practical Exam

A key aspect of this research was an in-person, hands-on, final practical exam that occurred at the end of each semester. Participants self-selected from an invitation distributed to all in-person and online students. Evaluators of the research final practical exam were all American Culinary Federation approved certification evaluators and could not identify in-person or online students.

Of the students participating in the final practical exam, 64 students received culinary arts instruction in-person and 24 students were instructed online. Table 4.2 details this study's research final practical exam student participation and the ACF evaluator participation.

		Total CUL Enrollment	Total Course Enrollment	Total In-Person Enrollment	% Total In-Person Enrollment	Total Online Enrollment	% Total Online Enrollment	In-Person Instructional Team Participation	Online Instructional Team Participation	Final Practical Team Participation	% Participation - Final Practical Exam	ACT Approved Certification Evaluators
Automated	Fall 2020 - Food I	122	44	35	79.5%	9	20.5%	5	3	5	15.6%	4
	Spring 2021 - Food II	117	23	14	66.7%	7	33.3%	5	2	7	33.3%	4
Hybrid	Spring 2021 - Food I	117	41	29	70.7%	12	29.3%	12	4	16	39.0%	4
	Fall 2021 - Food II	126	29	14	70.0%	8	30.0%	6	3	9	45.0%	4
Synchronous	Fall 2021 - Food I	128	52	34	65.4%	18	34.6%	15	5	20	38.5%	4
	Spring 2022 - Food I	120	16	9	56.3%	6	43.7%	19	4	23	65.9%	4
	Spring 2022 - Food II	170	17	5	90.0%	6	50.0%	5	3	7	48.3%	1
TOTAL			226	162	71.7%	84	28.3%	64	24	88	38.0%	

**Table 4.2:** Total CUL 1302 and CUL 1303 Research Final Practical Exam student and evaluator participation totals (Author's Work).

The four evaluators were trained and certified as Approved Certification Evaluators by the American Culinary Federation. Two of the four evaluators were the same for each exam. However, due to scheduling conflicts, relocation of one evaluator, and an employment change of another, the other two evaluators in each exam were different, chosen from a group of qualified evaluators.

Participants were recruited from in-person and online classes, using a prepared Google Doc to indicate their intention to participate; the Google Doc included a list of the skills assessed by the American Culinary Federation evaluators (see Appendix J). American Culinary Federation evaluators could not identify which participants received instruction in person or online. Evaluators entered their numeric scores and open-ended comments on prepared scoresheets provided (see Appendix K).

#### 4.3.3 End-of-Semester Course Evaluations

The American Management System Course Evaluation is used by the University of Arkansas Pulaski Technical College to assess student perception of the quality of courses and instructors. During this study, the AMS Course Evaluation was each Food Production I and Food Production II course was combined and analyzed. Data from two in-person Food I instructors, two in-person Food II instructors, and one online instructor for both courses contributed to the data for this section.

During the two-year study, 34 students from 14 section of Food I completed the AMS Course Evaluation. Three students from the Automated Online Food I, four students from the Hybrid Online, and six students from the Synchronous Online courses completed the evaluation.

Similarly, 12 students from four section of in-person Food II and four students from the Automated Online, three students from the Hybrid Online, and three students from the Synchronous Online Food II courses complete the AMS Course Evaluation.

#### ***4.3.4 Culinary School Educator Survey***

Additionally, culinary school educators across the United States were invited to participate in the Online Culinary Arts Education Survey via email. 187 higher education culinary arts programs in the United States were identified through a search of culinary schools accredited by the American Culinary Federation; a search of each school's webpage revealed contact email addresses of culinary school faculty. 526 email addresses were acquired through this search method, each receiving an email invitation with the link to the online survey. 13 emails bounced back, leaving 513 active email invitations sent and assumed to have been received. The survey was open for eight days at the end of the spring semester and the beginning of summer break. 53 individuals opened the survey and accepted the Informed Consent, a 10.2% response rate. However, 30 of the individuals responding did not answer questions beyond the Informed Consent; only 23 completed the survey, a 4.48% actual response rate based on the 513 potentials.

While specific reasons for low educator survey response rate are not know, this researcher considers the timing of the survey as a contributing factor to low survey response. Saleh and Bista (2017) stated, "Researchers have to be cognizant of the effect of timing on research survey response rates. Researchers should choose a time during the year that is most

conducive for their target population” (p. 71); the beginning of summer break was likely least conducive to good survey participation and response. Email invitations were sent from the researcher’s personal email address which may have been forwarded directly to recipients’ Junk Mail folders. Another consideration for low educator survey response rate could be the brief length of time the survey was open, only eight days (student pre-course and post-course surveys were open almost three weeks each semester).

#### ***4.3.5 American Culinary Federation Accreditor Survey***

Lastly, National Board of Directors of the American Culinary Federation, National Board of Trustees, national staff, and national committee members, especially the American Culinary Federation Education Foundation Accrediting Commission members were invited to participate in the Online Culinary Arts Education Survey via email invitation. 128 individuals and email addresses were identified by searching the “Meet Us” section of the American Culinary Federation website. The survey link was sent to each through an email invitation. Two emails bounced back, leaving 126 active email invitations assumed to have been received. The survey was open for eight days. 19 individuals opened the survey and accepted the Informed Consent, a 15.1% response rate. However, nine of the individuals responding did not answer questions beyond the Informed Consent; only ten completed the survey, a 7.93% actual response rate, based on the 126 potentials.

#### ***4.3.6 Spring 2022 Blackboard Course Activity Summary***

Spring 2022 was the only semester the Blackboard Course Activity Summary was available, downloaded, and analyzed for this study. Six students were enrolled in the online Food Production I course. Five students were enrolled in the online Food Production II course.

## **4.4 Results**

This study investigated various course delivery modalities of culinary arts education. The following sections analyze survey responses, practical exam performance, course evaluations, and Blackboard course activity.

### ***4.4.1 Pre-Course and Post-Course Surveys***

The pre-course survey was open for students to complete during the first three weeks of each semester it was administered. Likewise, the post-course survey was open during the final three weeks of each semester. Quantitative data was collected on the pre-course and post-course survey (see Table 4.3; survey summaries can be seen in Appendix L).

**Food I and Food II Student Pre-Course and Post-Course Survey**

		Fall 2020		Spring 2021		Fall 2021		Spring 2022	
		Number of Responses	Total Survey Participants	Number of Responses	Total Survey Participants	Number of Responses	Total Survey Participants	Number of Responses	Total Survey Participants
<b>Number of students indicating the following as "Important" (3-point Likert Scale - Not Important, Somewhat Important, Important).</b>									
Interaction and engagement with instructor	Pre-Course	9	10	16	19	35	38	21	22
	Post-Course	13	15	21	25	22	23	15	16
Interaction and engagement with classmates	Pre-Course	4	10	11	19	21	38	15	22
	Post-Course	11	15	11	25	14	22	13	16
Having a set time/place to attend class	Pre-Course	5	10	13	19	24	38	16	22
	Post-Course	12	15	21	25	15	23	12	13
<b>Number of students selecting "Somewhat Agree" or "Agree" (5-point Likert Scale - Disagree, Somewhat Disagree, Neither Agree or Disagree, Somewhat Agree, Agree).</b>									
I have the same interaction with classmates online as face-to-face	Pre-Course	3	10	5	19	12	38	5	22
	Post-Course	0	15	6	25	12	23	4	16
I have the same interaction with instructors online as face-to-face	Pre-Course	5	9	5	19	18	38	13	22
	Post-Course	2	15	10	25	13	23	5	16
I receive the same quality of feedback from my instructor online as face-to-face	Pre-Course	4	10	14	18	27	38	15	22
	Post-Course	9	15	15	25	17	23	10	16
I receive the same frequency of feedback from my instructor online as face-to-face	Pre-Course	4	10	10	18	25	38	17	22
	Post-Course	8	15	14	25	16	23	9	16
I can easily comprehend the online course material	Pre-Course	5	10	15	19	29	38	13	22
	Post-Course	9	15	17	24	18	23	11	16
Face to face makes it easier to communicate with my instructor	Pre-Course	7	10	9	19	29	38	17	22
	Post-Course	12	15	15	25	14	23	14	16
It is harder to communicate with my instructor in an online course	Pre-Course	3	10	9	18	17	38	10	22
	Post-Course	9	15	11	25	6	23	10	16
<b>Perception</b>									
Online learning is convenient	Pre-Course	7	10	13	19	30	37	19	22
	Post-Course	11	15	23	25	19	23	13	16
Online learning offers more freedom/flexibility	Pre-Course	8	10	19	19	31	38	19	22
	Post-Course	14	15	23	25	19	23	14	16
I am more satisfied in an online course	Pre-Course	4	10	8	19	16	38	9	22
	Post-Course	3	15	12	24	13	22	6	16
In this online course, the material will be presented effectively so that I	Pre-Course	6	10	14	19	28	38	18	22
	Post-Course	11	15	19	25	19	22	13	16
What I will learn in this online course can be applied to my current or	Pre-Course	8	10	17	17	35	38	20	22
	Post-Course	13	15	20	25	20	23	14	16
<b>Rate</b>									
Convenience	Pre-Course	9	10	18	19	35	38	15	22
	Post-Course	12	15	20	25	21	23	14	16
Cost Savings (travel, material, etc)	Pre-Course	7	9	8	19	29	38	13	22
	Post-Course	9	15	13	25	16	23	9	16
Flexibility (time, learning, etc)	Pre-Course	10	10	18	19	32	38	18	22
	Post-Course	15	15	22	25	21	23	14	16
Learning at my own pace	Pre-Course	6	10	11	19	27	38	13	22
	Post-Course	9	15	19	25	15	23	9	16

**Table 4.3:** Food Production I and Food Production II Pre-Course and Post-Course survey results (Author's Work).

Students were asked various 3-Likert scale questions in which they rated statements as Not Important (1), Somewhat Important (2), or Important (3). 89 students responded on this section of the pre-course survey while 79 responded on the post-course survey. 81(91%) of pre-

course survey participants marked Important for “Interaction and engagement with instructor,” and 71(89.9%) of the post-course survey participants indicating Important for the same criterion. 51 (57.3%) pre-course survey respondents selected Important for “Interaction and engagement with classmates” while 49 (62%) post-course participants made the same selection.

Students were also asked 5-Likert scale questions, indicating Disagree (1), Somewhat Disagree (2), Neither Agree or Disagree (3), Somewhat Agree (4), or Agree (5). 46.6%, or 41 respondents chose Somewhat Agree or Agree for “I have the same interaction with instructors online as face-to-face.” Survey respondents indicated professor interaction, explicit instruction, and regular communication would be helpful to them in the online course. Similarly, survey participants recommended clear expectations, simple technology, peer interaction, and consistent communication be considered when designing an online course. These results align with Jaggard, Edgecombe, and Stacey (2013), who indicated, “it is important for online instructors to actively and visibly engage with students in the teaching and learning process—perhaps with even greater intentionality than in face-to-face courses” (p. 1).

86.5% of pre-course participants identified online learning was Convenient while 84.8% of post-course respondents indicated similarly. Likewise, 87.6% of pre-course respondents and 91.1% of post-course participants designated online learning was Flexible. Flexibility, convenience, and balancing a study-work-personal life were common themes of the survey open-ended comments. “Flexibility” appeared 7 times and “convenience” occurred 13 times on the pre-course surveys. Northrup, Lee, and Burgess (2002) supports this finding in their investigation of the types of interaction students perceive to be important in online learning; they found, “The top reason for taking a course online was the flexibility followed closely by convenience” (p. 6). Similarly, a survey respondent shared, “I work full time and have children

at home as well. The online option is very helpful for me to complete a degree while managing my work and family life.”

#### ***4.4.2 Final Practical Exams***

The final practical exams for this study measured participants on a combination of essential and course-specific requirements. Food Production I included 20 items and Food Production II included 28. Each assessment point was measured on a numeric scale of 1-10, with 1 being the lowest quality and ten being the highest. Six assessment points were considered essential aspects of culinary professionalism in both courses; uniform, organization, mise en place, time management, safety, and sanitation. These represent specific attributes of professionalism in the foodservice industry and important measures in the evaluation of students. Evaluators also provide open comments on each assessment element. In Food Production I, evaluators assess knife cuts (onion dice, rondelle, lozenge, citrus fruit segment, batonnet, medium dice, and tourne), including how the technique was used to execute the cut and the uniformity, or consistency. In Food Production II, evaluators assess cooking methods and techniques, specifically the execution of the method, achieving the required degree of doneness (rare, medium-rare, etc.), and the flavor of the finished product. Plate presentation was also evaluated in Food II.

The final practical exams followed the same format, using identical product and exam criteria, for each exam each semester during the duration of the study (see Appendix M for each exam’s summary).

The results of each Food I final practical exam compared with each other revealed similar student professionalism scores, regardless of modality. In-person instructed students outperformed Hybrid Online students on every cut’s technique and uniformity (consistency)

score. However, Synchronous Online instructed students outperformed in-person students on every cut but the batonnet.

Food I Final Practical Exams													
		Fall 2020			Spring 2021			Fall 2021			Spring 2022		
		Automated Online Instructed Students	In-Person Instructed Students	Difference	Hybrid Online Instructed Students	In-Person Instructed Students	Difference	Synchronous Online Instructed Students	In-Person Instructed Students	Difference	Synchronous Online Instructed Students	In-Person Instructed Students	Difference
		5	3	8	4	12	16	5	15	10	4	19	23
Average ACE Evaluator Scores													
Professionalism	Uniform	9.3	9.5	-0.2	9.7	9.5	-0.1	9.3	9.2	0.1	9.4	9.1	0.3
	Organization	9.7	9.7	0.0	9.9	9.9	0.0	9.6	9.6	0.0	9.7	9.6	0.1
	Mise en Place	9.8	9.7	0.1	9.8	10	-0.2	9.6	9.7	-0.1	9.8	9.7	-0.1
	Time Management	9.8	10	-0.2	10	10	0.0	9.6	9.7	-0.1	10	9.9	0.1
	Safety	9	9.3	-0.3	9.9	9.9	0.0	9.7	9.7	0.0	10	9.8	0.2
	Sanitation	10	10	0.0	9.8	9.9	-0.1	9.3	8.9	0.4	9.4	9.5	-0.1
Practical Skills	Dice - Technique	8.2	8	0.2	9.1	9.4	-0.3	8	8.5	-0.5	8.3	7.8	0.5
	Dice - Uniform	8.7	8.2	0.5	8	8.9	-0.9	7.2	8	-0.8	7.7	7.1	0.6
	Rondelle - Technique	8.5	7.5	1.0	9.1	9.4	-0.3	8.4	8.7	-0.3	8.6	7.7	0.9
	Rondelle - Uniform	8.8	7.5	1.3	8.7	9.1	-0.4	8.2	8.5	-0.3	8.3	7	1.3
	Lozenge - Technique	8.5	8.2	0.3	8.9	9.5	-0.6	8.1	8.3	-0.2	8.4	7.2	1.2
	Lozenge - Uniform	8.7	8.5	0.2	8.4	9.1	-0.7	7.4	7.9	-0.5	8.1	6.3	1.8
	Citrus Segment - Technique	8	8.3	-0.3	8.8	9.3	-0.5	7.7	8.7	-1.0	8.5	7.4	1.1
	Citrus Segment - Uniform	7.5	8.7	-1.2	7.9	9.1	-1.2	7.3	8.4	-1.1	8.3	6.6	1.7
	Batonnet - Technique	8.3	8.2	0.1	8.5	9.3	-0.8	7.5	7.8	-0.3	7	7.1	-0.1
	Batonnet - Uniform	7.2	8.5	-1.3	8.1	8.7	-0.6	6.9	7.2	-0.3	6.3	7.3	-0.9
	Medium Dice - Technique	8.3	8.2	0.1	9.2	9.3	-0.1	7.9	8.3	-0.4	7.4	7.3	0.1
	Medium Dice - Uniform	7.8	7.5	0.3	8.3	8.9	-0.6	7.6	7.6	0.0	6.6	6	0.6
	Tourne - Technique	7.8	6.7	1.1	8.1	8.5	-0.4	7.5	7.3	0.2	7.9	6.8	1.1
	Tourne - Uniform	6.3	5.2	1.1	7.3	7.7	-0.4	6.6	6.5	0.1	7.6	5.4	2.2

**Table 4.4:** Food Production I Final Practical Exam Results (Author's Work).

The Food II final practical exams (see Table 4.5) followed the same format and structure as the Food I practical exams. In-person and Automated Online professionalism criteria were assessed identically, except for a 0.6 difference in Sanitation (in-person students scored 0.6 higher than Automated Online). Hybrid Online students were outperformed by in-person students in the professionalism criteria; whereas, Synchronous Online bested in-person students in every professionalism criteria by as much as 1.9 (time management).

An evaluation of the 22 criteria of the Practical Skills section of the Food II final practical exam, comparing each online delivery method with in-person instruction, rendered very similar results with few exceptions. There was a 1.8 point difference, for example, between the in-person and Synchronous Online rice pilaf degree of doneness, favoring in-person taught participants. Each of the sauce criteria favored Synchronous Online taught participants by as much as 1.4.

Food II Final Practical Exams										
		Spring 2021			Fall 2021			Spring 2022		
		Automated Online Instructed Students	In Person Instructed Students	Difference	Hybrid Online Instructed Students	In Person Instructed Students	Difference	Synchronous Online Instructed Students	In Person Instructed Students	Difference
Study Exam Participants		2	5		3	6		4	3	
Average ACF Evaluator Scores										
Professionalism	Uniform	10	10	0.0	9.3	9.3	0.0	8.3	7.2	1.1
	Organization	10	10	0.0	8.3	8.9	-0.6	8.3	7.1	1.2
	Mise en Place	10	10	0.0	8.6	8.9	-0.3	8.4	7.2	1.2
	Time Management	10	10	0.0	8.9	9.1	-0.2	9.8	7.9	1.9
	Safety	10	10	0.0	8.9	9.2	-0.3	8.8	7.4	1.4
	Sanitation	9	9.6	-0.6	8.9	9.2	-0.3	8.3	6.8	1.5
Practical Skills	Ribeye - Doneness	8	8.8	-0.8	8.3	8.1	0.2	5.9	6.9	-1.0
	Ribeye - Flavor	8.5	9	-0.5	8.8	8.2	0.6	7.6	7	0.6
	Ribeye - Method	10	10	0.0	8.8	8.5	0.3	7.1	7.7	-0.6
	Filet - Doneness	7.8	8.2	-0.4	8.2	8.4	-0.2	7.3	7.1	0.2
	Filet - Flavor	9	9	0.0	8.4	8.8	-0.4	8	6.9	1.1
	Filet - Method	8.5	10	-1.5	8.4	8.8	-0.4	7.8	7.1	0.7
	Salmon - Doneness	8.5	9.2	-0.7	8.4	8.2	0.2	7.4	7	0.4
	Salmon - Flavor	8.5	7.8	0.7	8.3	8.4	-0.1	7.6	6.7	0.9
	Salmon - Method	10	10	0.0	8.5	8.5	0.0	7.8	7.1	0.7
	Rice Pilaf - Doneness	8.5	9.4	-0.9	8.3	8.4	-0.1	4.9	6.7	-1.8
	Rice Pilaf - Flavor	8	8	0.0	8.8	8.6	0.2	6.2	7	-0.8
	Rice Pilaf - Method	10	10	0.0	8.7	8.8	-0.1	5.3	7.1	-1.8
	Green Beans - Doneness	9.5	9.8	-0.3	9	8.2	0.8	7	7.1	-0.1
	Green Beans - Flavor	9	8.8	0.4	8.9	8	0.9	6.5	6.8	-0.3
	Green Beans - Method	10	10	0.0	9	8.1	0.9	6.8	7.1	-0.3
	Sauce - Appropriateness	9.5	10	-0.5	8.9	8.9	0.0	7.5	6.4	1.1
	Sauce - Doneness	10	10	0.0	8.8	8.7	0.1	7.6	6.5	1.1
	Sauce - Flavor	8.5	8.4	0.1	8.4	8.6	-0.2	7.4	6	1.4
	Sauce - Method	9	9.8	-0.8	8.7	8.8	-0.1	7.5	6.6	0.9
	Plate - Color Composition	8.5	9.2	-0.7	8.3	8.3	0.0	7.7	7	0.7
	Plate - Architectural Composition	9	9.6	-0.6	8.2	7.9	0.3	7.1	6.8	0.3
	Plate - Eye Appeal	8.5	9.6	-1.1	8.3	8.1	0.2	7.5	6.9	0.6

**Table 4.5:** Food Production II Final Practical Exam Results (Author's Work).

When leaving written comments on an evaluation sheet, it is the practice of American Culinary Federation approved evaluators to document corrective feedback and suggest areas of improvement; comments that are congratulatory or praiseworthy are very rare. Comments left by evaluators of this study's Food I and Food II final practical exams (see Appendix L) were no exception. Examples of evaluator comments include:

- *Cut a julienne instead of a batonnet (good julienne though)*
- *Filet was medium rare, terrible*
- *Salmon is over poached and dry*
- *Pilaf is bland, needs seasoning*

- *Plating is monochromatic, needs variety*

However rare, evaluators of this study's final practical exams left comments that highlighted positive and noteworthy achievement. Examples of these comments include:

- *The ribeye and filet are a perfect med-rare*
- *Good use of classical knife cuts on the final plate*

Since the American Culinary Federation certified evaluators were unable to discern exam participants who received instruction online versus in-person, their assessments of participant performance indirectly highlights perception by removing potential biases or pre-conceived notions about distance delivery of practical culinary arts instruction. These ACF evaluators are considered 'outsider researchers,' "researchers who are not a members, or have a priori knowledge of the organization or group in which the research is being conducted" (Fleming, 2018, p. 311). Kerstetter (2012) noted, "Outside researchers are frequently valued for their objectivity and emotional distance from a situation" (p. 101).

#### **4.4.3 AMS Course Evaluations**

On the end-of-semester AMS Course Evaluation, students were asked to assess 12 course-specific statements about the course and the instructor on a 5-point Likert scale (with one as the lowest rating and five the highest). Table 4.6 (Food I) and Table 4.7 (Food II) outlines the average scores from all student ratings according to course content delivery method.

According to Food I student responses on the AMS Course Evaluations, each of the three online delivery methods were evaluated more favorably than in-person delivery; additionally, Food II students evaluated Synchronous Online more favorably and Automated Online as least favorable of the offered delivery formats.

AMS Course Evaluations Summary				
CUL 1302 Food Production I				
	In-person	Online		
	Total	Automated	Hybrid	Synchronous
Course Evaluation Responses	34	3	4	6
Q1. The instructors presentations are well-organized and clear.	4.4	5	4.8	4.9
Q2. The instructor clearly stated the objectives and expectations for this course.	4.5	5	5	4.9
Q3. The instructor is responsive and helpful to students.	4.5	4.7	4.8	4.8
Q4. The instructor encourages students to participate in class discussions and ask questions.	4.6	4.7	4.5	4.9
Q5. The instructor demonstrates a good knowledge of the subject matter being taught.	4.5	5	5	4.9
Q6. The instructor provides timely information concerning progress and grades.	4.4	5	4.5	4.9
Q7. The instructor is willing to give help outside class.	4.2	4.7	4.8	4.9

*Table 4.6: Food Production I AMS Course Evaluation Results (Author's Work).*

AMS Course Evaluations Summary				
CUL 1303 Food Production II				
	In-person	Online		
	Total	Automated	Hybrid	Synchronous
Course Evaluation Responses	12	4	3	3
Q1. The instructors presentations are well-organized and clear.	4.9	5	5	5
Q2. The instructor clearly stated the objectives and expectations for this course.	5.0	4.8	5	5
Q3. The instructor is responsive and helpful to students.	4.9	4.8	5	5
Q4. The instructor encourages students to participate in class discussions and ask questions.	5.0	4.3	5	5
Q5. The instructor demonstrates a good knowledge of the subject matter being taught.	5.0	4.5	5	5
Q6. The instructor provides timely information concerning progress and grades.	4.9	4.3	4.7	5
Q7. The instructor is willing to give help outside class.	4.8	4.5	5	5

*Table 4.7: Food Production II AMS Course Evaluation Results (Author's Work).*

41 Food Production I students answered the AMS Course Evaluation (see Appendix N) question, “What did you like about your instructor and/or this course?” Four respondents referred to the professionalism of their instructor. 27 students expressed appreciation for instructors who

provided guidance, help, and were willing to answer questions. For example, “Instructor was very willing to answer questions and provide additional guidance when asked,” wrote a Hybrid Online student.

Similarly, 19 Food Production II students responded to the open-ended questions on the AMS Course Evaluation (see Appendix N). Like Food I students, Food II respondents indicated appreciation for an instructor who were helpful. A Synchronous Online student evaluated their instructor as “Very responsive and helpful. Chef offers a lot of constructive criticism and praise that gives you confidence to keep trying. He really harbors a safe place to learn and ask many questions. I am really shy, and Chef is so approachable that I feel like I can be myself. He should teach everyone online.”

Referring to students’ satisfaction with interaction with instructors, Castro and George (2021) stated, “Ranking satisfaction levels based on course format..., the modality with the highest satisfaction of student-instructor interaction is in-person, followed by hybrid and synchronous online, and lastly, asynchronous online” (p. 32). Similarly, Martin and Bolliger (2018) found that “courses with synchronous conferences were perceived to be of better quality by students compared to courses that were entirely asynchronous. [They also] found that the integration of synchronous meetings in online courses can be beneficial to students because it increases student interaction” (p. 217).

#### ***4.4.4 Culinary School Educator & ACF Accreditor Surveys***

Culinary school educators and American Culinary Federation accreditors were asked to rate their perception of the effectiveness of Automated Online, Hybrid Online, or Synchronous Online culinary arts education (see Table 4.8). 17 culinary school educators gave Automated Online a preference score of 2.4 out of 5 and 8 ACF accreditors gave it a score of 3.3. Hybrid

Online was perceived more favorably with 17 educators indicating a score of 3.5 and accreditors scoring it 3.4. Educators and accreditors both found Synchronous Online as the most effective; educators gave a score of 4 out of 5 and accreditors gave 3.9. This data suggests Synchronous Online is perceived as a more effective educational delivery method for culinary arts content, as per this study.

**Online Culinary Arts Education - Educator & Accreditor Preference**

		<i>Average Reponse Score</i>	<i>Total Participants</i>
<b>Automated Online</b> – all content (pre-recorded demonstration videos, pre-recorded lecture videos, pre-recorded “guest chef” videos, essay assignments, terms to define assignment, module quiz) is pre-loaded in the learning management system (LMS) to be completed at the student’s convenience (expected to be completed weekly, according to the uploaded syllabus). No scheduled interactions with the instructor or classmates. Graded assignments include video, photographic, and text submissions.	<b>Educator</b>	2.4	17
	<b>Accreditor</b>	3.3	8
<b>Hybrid Online</b> – all content (pre-recorded demonstration videos, pre-recorded lecture videos, pre-recorded “guest chef” videos, essay assignment, terms to define assignment, module quiz) is pre-loaded in the learning management system (LMS) to be completed at the student’s convenience (expected to be completed weekly, according to the uploaded syllabus). A scheduled, weekly ZOOM (or other video conferencing platform) session to interact with the instructor and classmates. Graded assignments include video, photographic, and text submissions.	<b>Educator</b>	3.5	17
	<b>Accreditor</b>	3.4	8
<b>Synchronous Online</b> - all content (pre-recorded demonstration videos, pre-recorded lecture videos, pre-recorded “guest chef” videos, essay assignment, terms to define assignment, module quiz) is pre-loaded in the learning management system (LMS) to be completed at the student’s convenience (expected to be completed weekly, according to the uploaded syllabus). In addition to the pre-recorded content, a scheduled, weekly ZOOM (or other video conferencing platform) session that includes virtual “live” instructor demonstration and virtual “live” student practice, with instructor feedback, like a live, in-person class. Graded assignments include video, photographic, and text submissions.	<b>Educator</b>	4.0	17
	<b>Accreditor</b>	3.9	8

**Table 4.8: Online Culinary Arts Education and Accreditor Survey Modality Preference (Author’s Work)**

Understanding the impact of distance delivered education, Parker (2004) suggested “that the emergence of electronically delivered degrees, programs, courses, and services, has the potential to undo the delicate balance between accreditation to assure quality in higher education, the self-regulation of higher education institutions, and the availability of federal money to

colleges and universities” (p. 400). Similarly, “innovation is never a neat process; no idea ever pops out of someone’s head fully formed or perfect. Allowing colleges to try something and then iterate is critical for innovation to flourish... Instead of promoting quality, accreditation is in some cases consigning institutions to merely preserve the status quo. Instead, an accreditation system should be developed that is supportive of innovation, and which limits bad actors through a focus on outcomes” (Horn & Dunagan, 2018, p. 18). The following survey results contribute to educator and accreditor perspectives found in scholarly literature.

#### ***4.4.4.1 Culinary School Educator Surveys***

Culinary school educator and American Culinary Federation Education Foundation Accreditor participants of this survey were asked to “indicate the iterations through which an instructor could effectively teach (and a student could effectively learn) the topic, principle, technique, or method (as per the Postsecondary ACFEF AC Required Knowledge and Skill Competencies, see Appendix B). Selecting all that apply, survey participants indicated their perception and preference for teaching and assumed learning of 52 items from the American Culinary Federation Education Foundation Accrediting Commission’s Postsecondary Required Knowledge and Skill Competencies list (containing 268 knowledge and skill competencies, see Appendix B), indicating where each competency could be taught and learned most effectively online via Automated Online, Hybrid Online, and/or Synchronous Online delivery method (see Table 4.8).

Of the 52 competencies surveyed (see Appendix O), 23 educators indicated three competencies as more effectively delivered via Automated Online, competencies that refer to ‘Identify,’ ‘outline,’ and ‘describe.’ 14 competencies were evaluated as more effective via Hybrid Online, including those that direct students to ‘examine,’ ‘describe,’ ‘interpret,’ ‘discuss,’

‘define,’ and ‘explain.’ 35 competencies were assessed as more effective via Synchronous Online delivery, including ‘produce,’ ‘perform,’ and ‘demonstrate.’ This data indicates hands on, practical culinary arts lab content is perceived by educators to be more effectively delivered synchronously.

Supporting culinary school educator assessment of required competencies as more effective via Synchronous Online delivery, a survey respondent wrote, “ZOOM/hybrid is OK since it does have a face-to-face component. Skills and knowledge has to be demonstrated, not just talked about.”

Taste was a theme that appeared throughout educators’ comments. One survey participant observed, “There are many great ways to deliver lessons, and some good ways to prove learning, but I haven't seen a great way to taste an omelet online. And someone must taste the omelet.” Another educator insisted, “Online, you can’t master flavor. The need to taste the amount of salt or acidity only comes from in-person classes, and it is not something that can be learned via ZOOM.” Leer and Wistoft (2018) proposed an alternative perspective, suggesting, “Views on taste and taste education cannot be understood as universal truths nor can the objective be to force taste ideals on [students] with the intention of adjusting their taste accordingly. Rather, the pedagogical task of taste education should be to engage students in reflective work in which they can be made aware of their own individual sense of taste” (p. 5).

#### ***4.4.4.2 ACF Accreditor Surveys***

American Culinary Federation accreditors were sent the same survey as culinary school educators with their survey responses received and analyzed separately from the educator survey (see Appendix P).

Of the ten accreditors completing the survey, seven indicated that three culinary competencies requiring students to ‘discuss’ and ‘describe’ would be effectively delivered via

Automated Online. 26 competencies, including ‘explain,’ ‘describe,’ ‘discuss,’ ‘define,’ ‘convert,’ ‘outline,’ ‘identify,’ and ‘examine’ were selected by eight survey respondents as more effective via Hybrid Online delivery. 23 competencies, such as ‘produce,’ ‘demonstrate,’ and ‘prepare’ were determined by survey participants to be more effective in a Synchronous Online environment.

Accreditor comments (see Appendix P) were closely aligned with Educator comments. For an online culinary arts program to be effective, one of the nine accreditors proposed, “The instructor and student would need to connect several times a week via video call, phone call, etc. Email would not be enough... The student should be submitting videos of their work and the instructor should then be calling them to give a critique of every dish.” Another wrote, “There needs to be some critical feedback with the opportunity for the student to demonstrate improvement based on said feedback.”

Scholarly literature aligns with accreditor comments that refer to engagement. Protopsaltis and Baum (2019) suggested the need for “frequent and meaningful interaction between students and instructors for increasing the quality of the online educational experience and improving student outcomes and satisfaction” (p. 1). Reulet (2022) added, “Students benefit from structured course design, frequency of faculty presence, and opportunities to be engaged in the learning process through student-to-student and faculty-to-student interaction” (p. 29).

#### ***4.4.5 Spring 2022 Blackboard Course Activity Analysis***

Three of the six students (50%) completing the spring 2022 semester of Food Production I online did not pass the course, with two earning final grades of less than 10%. Those two students rarely logged in to Blackboard, and both submitted only a few online assignments. The other student receiving a failing grade completed 75% of course assignments for full credit in the

first half of the semester but disconnected during the last half of the semester, avoiding some of the highest scored assignments, rendering a final score of 53.5%. Of the three students (50%) who completed the online class, one completed the semester with 79.3%, and the other two completed the semester above 90% (one with a final grade of 90.6% and the other a 96.1%). The number of times students accessed Blackboard and the minutes/hours students remained logged in Blackboard corresponded with the final grades earned (see Table 4.9). Student #6, for example, accessed Blackboard 2,636 times, spending 177.31 hours in Blackboard during the semester, and achieved a 96.1% final grade. However, student #4 accessed Blackboard 101 times during the semester, spent only 8.82 hours, and earning an 8.6% final grade.

Student Engagement in Blackboard				
Food I - Spring 2022				
Student	Hits	Hours	Final %	Final Letter Grade
1	6	0.02	0	F
2	1075	45.4	79.3	C
3	589	49.64	90.6	A
4	101	8.82	8.6	F
5	165	41.72	53.5	F
6	2636	177.31	96.1	A
Food II - Spring 2022				
Student	Hits	Hours	Final %	Final Letter Grade
1	702	44.49	105.5	A
2	650	46.19	79.9	B
3	655	50.92	76.2	C
4	2088	89.67	83.4	B
5	802	49.95	94.8	A

**Table 4.9:** Spring 2022 Food Production I and Food Production II Student Engagement, Course Activity Overview  
(Author's Work)

Five students began and completed the spring 2022 semester of Food Production II online. Two students received final grades that were passing but below 80%. One student

received a final grade of 83.4%. One student received a final grade of 94.8%. One student received a final grade of 105.5% (grades above 100% by taking advantage of all extra credit opportunities in addition to high grades throughout the semester). While the specific number of times students accessed the Blackboard course (Hits) or the specific number of hours students were logged in the Blackboard course (Hours) correlated to a specific grade, the students who spent an average of 3 hours per week logged into Blackboard, accessing course content and an average of 40 hits per week completed the class with a passing grade (see Table 4.9).

Contributing to the idea that students choose online learning for convenience and flexibility, an evaluation of Blackboard Course Content User Activity for Food Production I revealed Sunday as the most active day on which students engaged in online course activities; 30.36% of all Blackboard hits were on Sunday (see Table 4.10). Thursdays were also popular days for Blackboard engagement; 21.6% of all Blackboard hits were on Thursday. 51.96% of all Blackboard hits in the spring 2022 Food Production I online course occurred on Sunday and Thursday throughout the semester.

Spring 2022 - Online Courses					
Food I			Food II		
Day of the Week	Hits	Percent	Day of the Week	Hits	Percent
Monday	2142	9%	Monday	964	6%
Tuesday	2136	9%	Tuesday	2859	18%
Wednesday	1203	5%	Wednesday	828	5%
Thursday	4915	22%	Thursday	2137	13%
Friday	2390	11%	Friday	1683	10%
Saturday	3059	13%	Saturday	1926	12%
Sunday	6907	30%	Sunday	5713	35%
Total Hits	22752		Total Hits	16110	

**Table 4.10:** Blackboard Access – Day of the Week, CUL 1302 Food Production I (Author's Work).

Sunday was the most popular day to access Blackboard in the online section of Food Production II (see Figure 4.10). 35.46% of all Blackboard hits occurred on Sunday. 17.75% of all Blackboard hits occurred on Tuesday. In-person courses are never offered on Saturday or Sunday at the research site. This data demonstrates students engage in the online sections of Food I and Food II during non-traditional times, establishing convenience and flexibility as reasons for choosing online learning.

The majority of Food I student engagement in Blackboard occurred after 7:00 pm (19:00) with a spike at 1:00 pm and another at 4:00 pm (see Figure 4.11); 39.55% of all Blackboard engagement occurred from 7:00 pm and midnight. 50.19% of student engagement in Blackboard occurs after 5:00 pm. While there was Blackboard access time throughout the day, 49.01% of all Blackboard access occurred after 5:00 pm; 30.6% of all Blackboard access for Food Production II online, spring 2022, occurred between 8:00 pm and midnight (see Table 4.11). Blackboard access was distributed throughout the day, beginning at 7:00 am, with some access between midnight and 6:00 am.

### Spring 2022 - Online Courses

#### Time of the Day

Food I			Food II		
Time of the Day	Hits	Percent	Time of the Day	Hits	Percent
0:00	613	3%	0:00	181	1%
1:00	43	0%	1:00	240	1%
2:00	117	1%	2:00	32	0%
3:00	16	0%	3:00	35	0%
4:00	4	0%	4:00	104	1%
5:00	3	0%	5:00	58	0%
6:00	36	0%	6:00	42	0%
7:00	291	1%	7:00	684	4%
8:00	324	1%	8:00	379	2%
9:00	964	4%	9:00	1052	7%
10:00	1084	5%	10:00	695	4%
11:00	598	3%	11:00	944	6%
12:00	991	4%	12:00	862	5%
13:00	2053	9%	13:00	489	3%
14:00	1515	7%	14:00	658	4%
15:00	825	4%	15:00	947	6%
16:00	1852	8%	16:00	862	5%
17:00	1074	5%	17:00	1059	7%
18:00	1348	6%	18:00	900	6%
19:00	1980	9%	19:00	958	6%
20:00	2754	12%	20:00	1424	9%
21:00	2037	9%	21:00	1521	9%
22:00	1258	6%	22:00	1071	7%
23:00	972	4%	23:00	913	6%
Total Hits	22752		Total Hits	16110	

**Table 4.11:** Blackboard Access – Hours of the Day, CUL 1302 Food Production I (Author's Work).

This data is confirmed by literature. “Many students choose the online format because it offers greater flexibility even though it requires greater self-discipline, and will compensate by, for example, putting more effort into time-management” (Daymont & Blau, 2011, p. 156). Stone, et al. (2019) suggested, “Online students are seeking greater flexibility... in terms of when and where they engage with the learning content, teachers, and other students” (p. 37).

#### 4.5 Findings

The hypothesis of this study was:

*If the course is designed with student engagement and learning objectives/knowledge and skill competencies in mind, an online practical culinary arts course can be designed and delivered effectively and efficiently, satisfying students, faculty, and accrediting organizations.*

This study found that regardless of modality (in-person, Automated Online, Hybrid Online, Synchronous Online), courses designed with rich and robust instructor and student presence and engagement conclude with greater student success than courses that lack instructor and student engagement. Similarly, courses designed with widespread engagement are perceived by students, educators, and accreditors as quality and successful courses.

The results of the data gathered from surveys, comments made by students, evaluators, educators, and accreditors, and Blackboard statistical analysis rendered the following answers to each research question.

***4.5.1 RQ 1. How can practical (hands-on) culinary arts education be delivered effectively in an online environment?***

Each online delivery format was assessed by culinary arts educators and accreditors as favorable for fundamental culinary techniques and methods. One of the problems with online delivery of culinary arts education was identified by an accreditor involved in the present study as the instructor's inability to taste, smell, and touch students' work. Because of this, 87.5% of accreditors surveyed and 94.12% of educators surveyed agreed that Hybrid Online or Synchronous Online could be viable formats for academic and lecture course material.

Murphy and Rodriguez-Mazanares (2008) suggested that "In order to succeed in the asynchronous classes ...students need to be "motivated," "self-directed," "able to work independently," and demonstrate a "willingness to communicate" and to "ask for help." They

also need to be “organized” and have “good time management skills” (p. 8-9). They further suggested that synchronous classes were “necessary... to provide direction to and engage with learners” (p. 9). Culinary school educators and accreditors corroborated Murphy and Rodriguez, indicating preferences for Synchronous Online over Hybrid Online and Automated Online (see Table 4.8).

Phillips (2005) stated, “The primary use of active learning strategies is to engage the learner in higher-order thinking (e.g., analysis, synthesis, and evaluation), which allows the learner to assimilate, apply, and retain learning” (p. 78). The application of learning in culinary arts is assessed by hands-on, practical exams. The results of the Food I final practical exams for this study (see Table 4.4) indicate Synchronous Online is more effective, with online instructed students scoring as much as 2.2 points (for uniformity of the tourney) higher than in-person instructed students. However, results of the final practical exams for Food II (see Table 4.5) are not as conclusive. The comparison of online delivery methods with in-person instruction revealed similar outcomes; Synchronous Online students outperformed all other delivery methods in all six professionalism criteria while in-person instructed students outperformed Automated Online by 0.3 (based on an average of the aggregate of all Practical Skills scores), Hybrid Online outperformed in-person by 0.1 and Synchronous Online outperformed in-person by 0.2.

The results of the data of this study are confirmed by Sun and Chen (2016) who suggested, “effective online instruction is dependent upon 1) well-designed course content, motivated interaction between the instructor and learners, well-prepared and fully-supported instructors; 2) creation of a sense of online learning community; and 3) rapid advancement of technology” (pg. 157). In other words, effective delivery of online culinary course content is not

a matter of delivery method; rather, it is a matter of course design that fosters interaction with instructors, with peers, and with the course content.

***4.5.2 RQ 2. In an online culinary arts program, what methods can faculty use to maintain student engagement and presence?***

Kalantzis and Cope (2020) stated, “Engagement does not have to be locked into the four walls of the classroom and the cells of the timetable” (p. 53). From the findings of her study of engagement in online education, Reulet (2022) found:

“Students indicated that icebreaker discussions were the most important engagement strategy faculty could implement in an online course. Results further showed that structured discussion boards, which included the instructor posing guided questions, were an important engagement strategy as well. Additionally, students revealed that email communication, detailed assignment feedback, assignment rubrics, and announcements were strategies they found engaging in their online courses” (p. 7).

Instructor presence and the instructor’s course design are integral aspects of student engagement. Ma et al. (2015) suggested that “the instructor's course preparation and assistance activities affect different dimensions of student engagement activities and the relationship between these activities. The results reveal that an instructor's course preparation is significantly positively related to the students' viewing activities, while instructor's guidance and assistance has a significant impact on the students' completing learning tasks” (p, 26). This is confirmed by the spring 2022 Blackboard Course Activity Analysis (see section 4.4.5 of this work). Students who engaged in the Blackboard course content an average of 40+ times per week and spent an average of three hours per week in Blackboard completed each online class successfully (with a passing grade).

22 culinary arts educator survey participants responded to the survey question, “How can an instructor maintain interaction and engagement with students in an online course?” Responses included discussion boards, recorded demonstrations, regular meetings with the class, timely and relevant feedback, and ZOOM sessions (see Appendix O). Scholarly literature agrees with these findings. “Using digital technology to deliver content, connect learners, and enable anytime, anywhere learning is increasing, but keeping students engaged in technology-mediated learning is challenging” (Henrie, Halverson, & Graham, 2015, p. 36). Student engagement is a crucial aspect of online and distance learning, and a question addressed in this study. Ma et al. (2015) stated, “The degree to which students have been actively engaged in their academic work deeply affects the level of their learning outcomes, cognitive development, and educational quality” (p. 26).

Creating an environment where students can engage with the instructor, classmates, and the course content is essential because “the degree to which students have been actively engaged in their academic work deeply affects the level of their learning outcomes, cognitive development, and educational quality” (Ma, et al., 2015, p. 26). Students’ survey responses align with Ma, et al., and revealed their perceptions about being engaged with the instructor, classmates, and course material (see Appendix L). Several students expressed satisfaction with the weekly ZOOM session; one stated, “Enjoyed once a week face-to-face (ZOOM) interactions with my instructor, and my instructor was very prompt in returning email correspondence.”

#### ***4.5.3 RQ 3. How is online culinary arts education perceived by students, faculty, and accrediting organizations?***

Out of 108 participants of the post-course survey, there were very few dislikes reported of the online culinary arts class (see Appendix L). On the one hand, a student wrote, “No

dislikes, I'm telling you I loved this class. Short of delivering the food items to my house, I have no complaints.” On the other hand, another student wrote:

“I disliked having to figure out some of the technology aspects that I have never used before. I personally had a lot of connection/technology issues sometimes that added so much stress to some of my assignments. I also did not like having to do the videos. I disliked not having in-person feedback on my technique in the cuts- I am very visual and learn most things better by someone showing me in person, not just telling me what I need to do differently. I do know that I could have coordinated an in-person time with my instructor, though, and I appreciate his willingness to do that. Unfortunately, my work schedule (we were very short-handed) the several weeks during the class did not allow that.”

Various camera angles on the pre-recorded demonstrations, the flexibility to move at one's own pace, and the ZOOM meetings allowing them to ask questions in real-time were articulated as advantages of the online culinary arts course were specifically mentioned by respondents of the post-course survey (see Appendix L). One student stated:

“I loved the weekly zooms where students were a part of the learning process. I loved the instructional knife videos that showed multiple angles of the cuts. I appreciated that the instructor was willing to work with students one-on-one, either online or in-person, on fine-tuning skills. I thought the instructions were very clear throughout the course. I thought the weekly requirements were reasonable and enjoyable. Again I enjoyed the flexibility. I also really loved the frequent feedback from the instructor.”

Among the disadvantages suggested by participants of the post-course survey (see Appendix L) were having to take pictures or videos of lab work, connection problems, and other

technology challenges, and the amount of time that was required, some weeks, to complete all of the module assignments. Referring to the Hybrid Online format, a respondent stated:

“I think the biggest thing to me was that some weeks took a whole lot of time.

Even loading up the pictures and proof of what had been done takes time and effort because Blackboard doesn’t function well on phones. Several of the classes had the instructor show us what to do, and then we would cook it on our own. That created an environment in which we wouldn’t be corrected if we were doing something wrong. So I would have a finished product, but I don’t know whether or not I made it in the right manner.”

As presented on Table 4.5 (see also Appendix L), students evaluated “online learning requires the same time commitment as face-to-face,” “online learning offers more freedom/flexibility,” “online learning requires more self-discipline,” “online learning is harder than face-to-face,” and “online learning is convenient” as positive experiences.

One of the key elements of the Hybrid Online and Synchronous Online classes was the weekly ZOOM session, either to discuss weekly objectives and expectations (as in the Hybrid Online class) or to cut or cook together (as in the Synchronous Online class). One student wrote about their personal experience in the Hybrid Online class, “He had a Monday evening Zoom classes scheduled. We went over lectures, questions, and plate presentations. The best part was being able to connect with my classmates and express my concerns and excitement with no judgment. I appreciated being able to express myself open and free without judgment.” When holding ZOOM sessions, recording each session and making them available for students to watch asynchronously was appreciated by another student who wrote, “The Zoom meeting is where we connected, and sessions were recorded.”

23 culinary arts educators from across the United States were surveyed and shared their perceptions, opinions, thoughts, and feelings. Based on an abbreviated list of competencies from the American Culinary Federation Education Foundation Required Knowledge and Skill Competencies, educators were asked to indicate their perceptions of each competency being effectively delivered and evaluated via Automated Online, Hybrid Online, and/or Synchronous Online formats. Automated Online course delivery received the lowest scores for each competency. Hybrid online and Synchronous Online received very similar scores, particularly among competencies requiring students to explain, describe, define, interpret, and identify something. However, of particular noteworthiness, educator participants of this survey overwhelmingly indicated a preference for Synchronous Online for the competencies that required students to produce or demonstrate something, indicating a possible lack of confidence in Automated Online and Hybrid Online for hands-on skill instruction and assessment (see section 4.4.4a, 4.4.4b of this work, and Appendix O).

Nine American Culinary Federation accreditors responded to the survey questions (see Appendix P), “What do you like about culinary arts education?” and “What do you dislike about online culinary arts education?” Three of the nine accreditors (33.3% of accreditor respondents) answered they like that online learning makes culinary education accessible to a broader population and two respondents like the flexibility of online education. Three of the nine accreditors (33.3%) dislike the inability of the online instructor to assess the taste of students’ work.

22 culinary arts educators responded to the same questions asked of ACF accreditors (see Appendix O). Six educators (27.2%) responded to “What do you like about culinary arts

education?” with flexibility and convenience. 17 educators (77.3%) responded the inability to taste as the response to “What do you dislike about online culinary arts education?”

## CHAPTER 5: IMPLICATIONS AND RECOMMENDATIONS

### 5.1 Intro

Driscoll et al., (2012) introduced online education. They stated:

“As a new teaching medium, online education faces many of the same challenges that accompanied the introduction of the textbook, the chalkboard, and the computer to the classroom. Adjustments to teaching strategies and methods are necessary to use new educational tools effectively, and increased research and discussion of the strategies and methods associated with online learning are required. Learning is a flexible and dynamic process that can be successfully accomplished across a wide range of settings, methods, and strategies. The quality of the learning experience is determined by the pedagogy used, not the medium through which the learning takes place” (p. 326).

For this research, a few studies were found to address perceptions of students, faculty, administrators, and employers regarding online culinary arts education, such as Mack (2011) and Ryall (2019). However, no study could be found addressing the effective course design of online culinary arts education. This study aimed to understand the efficacy of online postsecondary culinary arts education and sought to answer the following research questions:

*RQ1: How can practical (hands-on) culinary arts education be delivered effectively in an online environment?*

*RQ2: In an online culinary arts program, what methods can faculty use to maintain student engagement and presence?*

*RQ3: How is online culinary arts education perceived by students, faculty, and accrediting organizations?*

Of the three iterations of Food Production I and Food Production II, online delivery of culinary arts education should include and ensure regular, substantive, and ongoing interaction between students and instructors. For example, as discovered in this study, weekly ZOOM sessions served the inherent needs of students to interact with each other and with the instructor; this also engaged students with the course content, narrowing the transactional distance that separates instructors, students, and course material, according to Moore's Transactional Distance Theory. Instructors that provide ongoing, interactive opportunities for their students, are present and active in discussion boards, offer regular virtual office hours, and keep regular communication with their students help maintain instructor-student, student-student, and student-content engagement, which also increases student satisfaction and success rates. These should be considered best practices for delivering non-lecture, practical, hands-on culinary arts education.

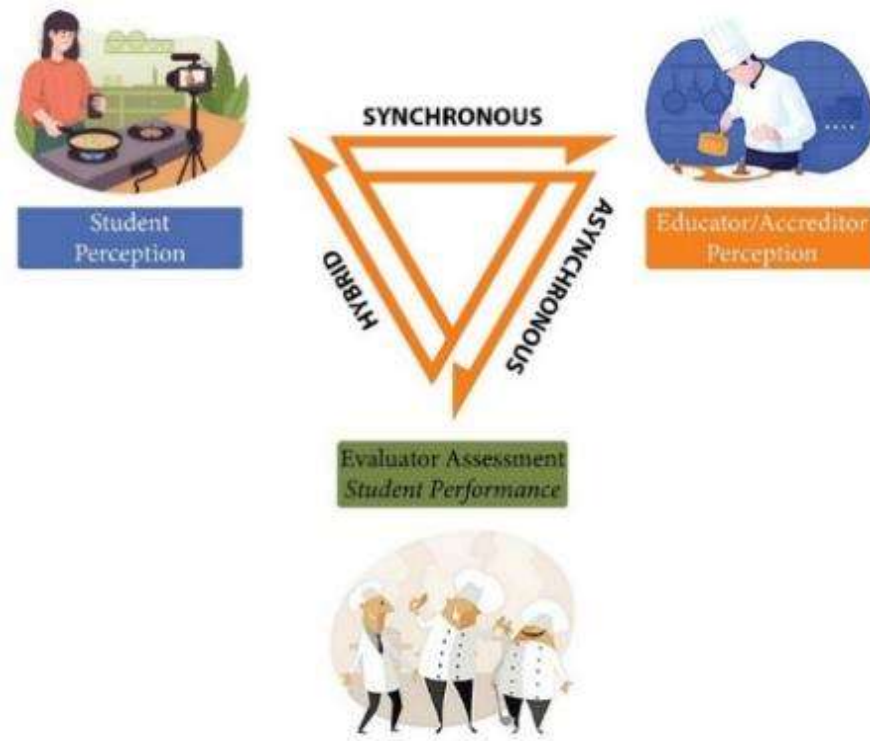
This study was conducted with the following hypothesis in mind:

*If the course is designed with student engagement and learning objectives/knowledge and skill competencies in mind, an online practical culinary arts course can be designed and delivered effectively and efficiently, satisfying students, faculty, and accrediting organizations.*

## **5.2 Synthesis of Findings**

This research project was conducted as a concurrent mixed methods study (see Figure 5.1). Quantitative and qualitative data was collected and analyzed from four sources: University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute students, higher education culinary arts educators from the American Culinary Federation, accredited postsecondary culinary schools around the United States, board and committee

members of the American Culinary Federation (the postsecondary culinary school accrediting organization), and American Culinary Federation approved certification evaluators.



**Figure 5.1:** Concurrent Triangulation Mixed Methods Study to Understand the Efficacy of Postsecondary Online Culinary Arts Education (Author's Work).

Additionally, three iterations of two fundamental, practical, hands-on culinary arts courses were compared: Food Production I and Food Production II. Food Production I was a course that covered an introduction to the foodservice industry and classical knife skills practice. Food Production II was a course that covered classical cooking methods and techniques.

According to student pre-course and post-course surveys, containing quantitative and qualitative data, students' preferences included direct engagement with instructors and classmates, which was specifically highlighted in the Hybrid Online and Synchronous Online iterations of both Food Production I and Food Production II course iterations.

Higher education culinary arts educators and American Culinary Federation national board and committee members, identified in this study as ‘accreditors,’ agreed that course content delivery methods that provided for the greatest degree of direct interaction would be most acceptable. It was found that while theoretical academic concepts like kitchen sanitation, culinary history, and kitchen math were easily delivered in any online format, practical concepts like how to hold a chef knife, executing classical cuts, and cooking would be best covered in-person or Synchronous Online.

American Culinary Federation approved certification evaluators assessed students’ performance in post-course final practical exams. Students who received instruction in person and those who received instruction online participated simultaneously in each exam; evaluators were unable to identify the difference and evaluated each student according to industry standards. It was found that in both the Food Production I and Food Production II courses, students in each online course iteration performed very closely to the in-person instructed students. Food Production I students instructed via Synchronous Online delivery outperformed in-person instructed students.

It was found that in all of the three iterations of each culinary arts course examined in this study, it is, in fact, possible to effectively deliver hands-on, practical culinary arts course content, satisfying students, educators, and accreditors. Based on the cumulative amalgamation of all research data, a key finding is that course design that fosters instructor and student engagement and interaction is the central consideration, regardless of course content delivery method.

However, based on the finding of this study, especially the comments from educators and accreditors, effectively delivering online culinary arts education should be limited to such components as fundamental practical skills, such as knife skills and classical cooking methods

and techniques, teaching students “how to properly evaluate knife skills and tasting components,” as one educator wrote.

It was found that it was during these introductory, fundamental lessons, students begin to develop a vocabulary to articulate their taste perception before progressing to advanced culinary arts courses, where they will learn to adjust their cooking to adapt to others’ taste perceptions (making things the way Chef want them to taste, look, and feel). 78.26% of educators’ surveys agreed that describing “the understanding of and ability to describe one’s own perception of taste” would be best accomplished in synchronous online course delivery.

### **5.3 Implications**

The internet has successfully moved from a “fringe technology” to mainstream popular culture (Bailey, 2001), including education. However, as stated previously, while distance learning is nothing new, online delivery of culinary arts content is unique. It is so new that scholarly literature, the few publications that directly address this topic, primarily refers to student, educator, and employer perceptions rather than the actual classroom. This study focused on course design and delivery method in relation to student performance, productivity, and the student, educator, and accreditor perceptions. This study addresses the paucity of research in the delivery of online culinary arts coursework in higher education.

As mentioned in the beginning of this study, Grover (2019) claimed both brick-and-mortar and online retailers face competition from Amazon, and to survive in today's competitive retail world, companies should adapt to changes in consumer behavior and develop strategies keeping their customers in mind. Retailers failing to adapt and adjust to changes in market conditions and customer preferences have experienced significant financial hardship or have completely gone out of business (Wiggington, 2018). Based on the results and findings of this

study, it can be ascertained that this research contributes significantly to the notion that postsecondary culinary arts education could fall victim to similar circumstances if institutions and accrediting organizations similarly fail to adapt and adjust to the growing demand by students for increased use of technology and online options for course delivery.

This study referred to this phenomenon as the Amazon Effect, in which retailers failed to adapt to changes brought on by Amazon's competitive success and growth by embracing and utilizing emerging technology, which ended in bankruptcy and closure. Retailers that continued to compete similarly embraced these emerging technologies and continued to innovate.

Ball, Wadley, and Roenker (2003) suggested a natural resistance to change and implementation of new programs and ideas, despite their scientific foundations and supporting data. They also indicate that another obstacle to change and implementation could be that the affected organization might fear others' perceptions of the change. Some educators surveyed were insistent that no one implements online culinary arts education. For example, one educator wrote, "Don't do it. You're destroying education and the foodservice industry. Spend your time figuring out ways to lower the cost of traditional education." A few accreditors raised concern about online culinary arts education's inability to engage taste, smell, and touch. One accreditor wrote, "There's a lack of ability to assess taste and improve with students." It seemed as though some viewed online culinary arts education through the lens of past personal experience, where online education implied unscheduled, disconnected, work-at-your-own-pace, pre-designed homework worksheets

A culinary degree is not required (Kowarski, 2021; U.S. Bureau of Labor Statistics, 2022) to work in and find success as a professional culinarian. The keys to foodservice success are simple: be observant, apply what is observed, and maintain a strong work ethic. "Culinary

school can allow you to explore your passions, hone your practical and business skills, network with like-minded people... and much more” (Escoffier School of Culinary Arts, 2022). A culinary arts degree can spring-board one’s career, teaching in two years what one might learn over four to six (or more) years without formal education. It, therefore, falls upon educators and accreditors to consider alternative delivery of culinary education to provide additional opportunities to a busier student base with increasingly complex lives.

## **5.4 Recommendations**

Parker (2004) suggested, “With the proliferation of online learning providers and the challenges presented by the distance education sector to state regulators and accrediting bodies, it is not surprising that “buyer beware” is the watchword for students, institutions, and public agencies alike. In the current environment, it is incumbent on organizations to demonstrate the quality of their services in ways that are intelligible to potential students and their employers, faculty and staff, regulators, and government agencies” (p. 385). Based on the results of this study and with Parker (2004) in mind, the following recommendations are suggested.

### ***5.4.1 Recommendation 1: Contact Hours***

Virtual office hours as part of an online course is an important consideration of research question 1 and 2. One educator suggested, “Instructor and student engagement can be maintained by course design that includes regular meetings with the class, keeping online office hours, and regularly calling, emailing, and/or texting students.” Regular virtual office hours for online students is just as important as regular office hours for in-person students.

Participants of the pre-course and post-course survey identified ‘Accessibility to the instructor’ as important. One student wrote, “I think the zoom calls are doing great. But maybe if someone needs help they can schedule one on ones. Some people are ashamed to ask in front of

others.” Another student stated, “Be available during office hours by phone, email, or zoom. That would be the best way to ease my personal fears about communication.”

#### ***5.4.2 Recommendation 2: Engagement and Interaction***

Ensuring student-instructor, student-student, and student-content engagement and interaction should be an integral part of the course design. Examples of regular and substantive interaction include, but are not limited to:

- individualized emails, instructor-facilitated discussions, scheduled virtual office hours, personalized feedback on assignments, weekly course announcements written specifically for the course, weekly summaries or highlights of discussion posts, regularly scheduled online review or help sessions, announcements previewing or reviewing difficult content, emails previewing concepts introduced in the next unit, and listing questions for students to have in mind when reading the textbook chapters (Baker, 2011, p. 408)
- message boards, discussion groups, blogs, chat rooms, and even video conferencing software like Skype as important tools for students to connect with each other. (Johnson, Mejia, & Cook, 2015, p. 12)
- create an online space for introductions; adding a face and personality to the instructor (and to the students, (Hege, 2010) p. 318
- regularly emailed updates on each student’s performance help to maintain a more personal connection with each student while also providing them with valuable feedback on their progress in the course (Hege, 2010) p. 318.

#### ***5.4.3 Recommendation 3: Course Design***

Regardless of the delivery method, instructors should design their courses around the course content rather than around the technology. Driscoll et al., (2002) suggested:

“Successful online courses should be designed around strong pedagogical standards rather than new, complicated modes of delivery. Students have repeatedly stated a greater concern for solid teaching over “bells and whistles”. When educators adopt curriculum to fit the technology, rather than choose the technology that fits the curriculum, the instructional pedagogy suffers. Although the judicious use of technology can certainly enhance the learning process, abuse of multimedia elements can distract and detract from actual content and learning. Students in online courses have reported that they did not enjoy listening to lectures, tapes, and speeches. Additionally, the inclusion of more media in online courses does not appear to affect the amount that students learn and actually lowers student satisfaction levels. Rather than design an online course around the teaching tools that are available, designers should make course goals and student learning outcomes the foci of a successful online course. Student expectations for learning in online courses should match those of F2F courses in both coverage and level of understanding. Although technology is a key element of a successful online course, its use should always be content driven” p. 316.

#### ***5.4.4 Recommendation 4: Instructor Engagement and Interaction***

This study found that instructor engagement and interaction were key to student satisfaction and success in an online culinary arts course. One student wrote, “I knew I could text or email my professor with any questions I had. And I obviously saw him every week for class, so there was the interaction there.” Another student wrote, “I enjoyed once a week face-to-face interactions with my instructor and my instructor was very prompt in returning email correspondence.” Reulet (2022) suggested, “The level to which faculty interact and engage with students and are present in their asynchronous online courses will depend on their level of

training on the strategies available within their Learning Management System (LMS) to achieve regular and substantive interaction” (p. 3).

#### ***5.4.5 Recommendation 5: Online Delivery***

As it related to this study’s hypothesis, it is recommended that culinary schools include online delivery as part of their course offerings. Hybrid Online or Synchronous Online could be the delivery consideration for introductory, fundamental hands-on, practical courses.

Asynchronous, automated online might be an option for lecture courses, such as nutrition or food service management.

Regardless of chosen online culinary arts course delivery format, the interaction and engagement between instructor and student, student and classmates, and student and content should be essential for future course design. This interaction needs to be regular and substantive.

#### ***5.4.6 Recommendation 6: Instructor Training***

Online learning is not for everyone (Kearsley, 2002), including both student and instructor. Instructors need ongoing training to remain current with technological resources and changing distance delivery methods; students need the desire, available technology, and continued motivation to engage in online learning. The overall key consideration should be the learning objectives (which American Culinary Federation Education Foundation Required Knowledge and Skill Competencies can be taught and acquired online, for example), meeting the learning objectives, and assessing their outcomes.

#### ***5.4.7 Recommendation 7: Communication***

Communication was mentioned in several comments by students, educators, and accreditors. One student indicated, “My instructor was very prompt in returning email correspondence.” Another student wrote, “He answered questions/emailed quickly and

accurately and he interacted with students on a personal level.” One accreditor’s comment about communication and frequency of feedback in the online environment was instructive for all online educators; they suggested, “The instructor and student would need to connect several times a week via video call, phone call, etc. Email would not be enough. It would be hard. The student should be submitting videos of their work and the instructor should then be calling them to give a critique of every dish.”

#### ***5.4.8 Recommendation 8: Rubrics***

An educator suggested well-designed, easily accessible rubrics for grading; the rubrics should be accessible before assignments, so students understand expectations. They wrote, “There must be a very clear rubric to address specific elements of the lesson. What will be assessed and evaluated, expectations and submission format?”

#### ***5.4.9 Recommendation 9: Demonstration Videos***

Students, educators, and accreditors suggested including well-produced lab demonstration videos featuring the instructor (not curated YouTube videos of an unknown culinarian). One student expressed being more engaged watching “actual videos of him performing things we had to perform as if we were in class physically.” To achieve this, it was observed by an educator that, to be effective online, instructors should be attentive to “the quality of the online demonstrations, their ability to operate media equipment, response time to student questions/needs, and learning outcomes/grading.” These comments serve to identify best practices in the design and delivery of online culinary arts education.

#### ***5.4.10 Recommendation 10: LMS Layout***

Consistent layout in the learning management system was identified as an integral element of effective online educational programs. One student observed, “All of the course

content was laid out clearly in blackboard, and it was consistent every week.” Another stated, “The course content was well laid out and it flowed well with the reading assignments.”

#### ***5.4.11 Recommendation 11: Peer Review***

Providing opportunities for students to review and evaluate each other increased student perceptions of feeling engaged with other students. One student observed, “Chef made sure to encourage us to evaluate each other’s plates.” One educator responded favorably to incorporating peer reviews into the design of online culinary arts education. They stated, “Team-based critiques and project building. Students should be placed in smaller (rotating) cohorts that require a certain amount of group critique or project development.”

### **5.5 Limitations**

There are several limitations to this study. These limitations lead to future research opportunities.

#### ***5.5.1 Insider Researcher:***

While not the only instructor of every section of Food I and Food II, the researcher of this study was the only instructor of each online section of both courses and each online method. This researcher was also the course designer of both courses, determining in-person and online educational activities, populating Course Content in each course Blackboard shell, and regularly discussion course and student progress. The later was part of the researcher’s specific duties as the Lead Culinary Faculty at the Culinary Arts and Hospitality Management Institute at the University of Arkansas Pulaski Technical College and was not motivated by the study.

#### ***5.5.2 Sample Size:***

One limitation of this study was the sample size of the Online Culinary Arts Education survey sent to both educators and accreditors. In both cases, many survey respondents did not

continue the survey beyond the Informed Consent. Both surveys were identical; they were identified as ‘educator’ and ‘accreditor’ surveys to separate the results for research purposes. The email invitations sent to the addresses acquired for each group included the suggestion that the time required to take the survey would be approximately 10 minutes. Student surveys were open three weeks at a time (pre-course surveys open for three weeks at the beginning of the semester and post-course surveys open for three weeks at the end of the semester). Both the educator and accreditor surveys were open for eight days each. It may have been inconvenient for educators to participate in the survey, as it was open at the beginning of traditional summer break when many educators leave for vacations or otherwise avoid checking or responding to texts, emails, or other work-related activities.

#### ***5.5.3 Participant Self-Selection Bias:***

Another limitation of this study's final practical exam aspect was the participant self-selection bias. While the research study's final practical exam was open to every student enrolled in the respective course (CUL 1302 Food Production I or CUL 1303 Food Production II), the reward of extra credit added to students’ final grade encouraged involvement in the exam. Some of the participants in each semester’s final practical exam were average or below-average students (average or below average practically as well as academically), needing the extra credit to ensure a passable final grade in the course. This was true of both the in-person and online population. The alternative would have been researcher/instructor-selected participants of the final practical exam, which would have biased the exam and controlled both the data and the analyzed results. Another alternative would have been a required final practical exam for the study; this may have rendered different results; however, a required practical exam would have required an exam location large enough to accommodate 50+ students per exam or certified

evaluators available and willing to assess exams every day for a week. This could have skewed evaluators' assessments, as they could be more critical early in the week and less observant by the end of the week.

In addition, to research final practical exam participant self-selection, the sample size of several final practical exams was small. With a total of 43 students enrolled in CUL 1302 Food Production I fall 2020, only six students participated in the research final practical exam, three in-person and three online students. Statistically, this was a sufficient sample size for this study, though a larger sample may have been a better representation of everyone enrolled in the course.

Spanning two academic years, from fall 2020 through spring 2022, it was not possible to schedule final practical exams around the availability of the same four evaluators. Therefore, different evaluators were involved in the research final practical exams from one semester to another. Evaluators were certified by the American Culinary Federation as Approved Certification Evaluators, undergoing the same training to evaluate certification practical exams on a consistent, national standard. Evaluators, though different from semester to semester, observed student participants' technique, method, and final productivity, scoring each participant's work on the same standards, using the same scoresheet.

#### ***5.5.4 Participant/Student Technology Disparity***

Another limitation of this study was participant technology disparity. While many students had easy access to the internet, cell phones, cameras, and other technology used in online education, some students experienced problems gaining access to course material, maintaining access to course material, completing assignments, and uploading assignment artifacts. Some of these problems occurred because students continued to use cell phones

exclusively, despite requiring a desktop or laptop to submit assignments in the learning management system.

#### ***5.5.5 Location of the Study***

The study location was another limitation of this study. Out of 665 culinary schools in the United States (as identified by the National Center for Educational Statistics Classification of Instruction Programs), this study was conducted at only one location, the University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute. Accredited by the American Culinary Federation Education Foundation Accrediting Commission, the curriculum at the culinary school at Pulaski Tech followed the Required Knowledge and Skills Competencies required of accredited culinary programs. Despite this, the external validity of this study's results would have been more confident if the study had included multiple locations.

#### ***5.5.6 Timing of the Study: COVID-19***

A final limitation of this research was to time in which it occurred. This study took place from fall 2020 through spring 2022. Higher education in the United States was affected by the COVID-19 pandemic. While many colleges and universities had returned to in-person studies by fall of 2020, students at the University of Arkansas Pulaski Technical College were allowed to choose from in-person, hybrid, or online options for most of their courses, including culinary arts. Several students reported that the pandemic influenced their choice of online culinary arts education, though they would have preferred in-person learning. Many students had positive feedback about online culinary arts education after they experienced it, some continuing online studies when offered.

## 5.6 Future Research

Future studies should consider the sample size of any survey. To encourage participation, thus increasing the sample size, future researchers might consider offering payment for survey participants. According to this study and a comparison of the student survey participation versus educator and accreditor survey participation, sufficient time for educators and accreditors to participate in the survey will increase participation and sample size. Student survey participation, hence the student survey sample size, might have been more significant than the educator and accreditor survey participation and sample sizes because the student surveys were open for three weeks; the educator and accreditor surveys were only open for eight days. Also, with a more intrinsic reward than potentially changing an industry, survey participants might complete more of the survey than just the Informed Consent. However, a strength of this study is the fact that participants were not paid. This establishes the performance and perceptions of participants as authentic to the individual participants and not purchased responses.

For a future study that will span multiple semesters or involve multiple testing times, it is suggested that the services of the same evaluators for each exam experience are secured for greater continuity with the evaluations. While American Culinary Federation evaluators undergo specific training to ensure standardized evaluations, individual biases and culinary experience preconceptions affect evaluators' assessment of culinary standards. Greater continuity and consistency of evaluations would be guaranteed by obtaining the services of the same evaluators for each exam.

Interaction between instructor and student needs to be regular and substantive. In other words, an instructor's comment on a student's discussion post, to be substantive, must be more than "good job," "well done," or "thank you for your comment." According to Mabrito (2004),

most students appreciate individualized attention in real time. Online office hours and conferences are two means of connecting with students synchronously, and both can be established with free messaging services and the synchronous communication features included in learning managements systems like Blackboard.

## **5.7 Conclusion**

David Kolb's Experiential Learning Theory is at the root of culinary arts education. Students engage in hands-on, practical lab practice, allowing them the opportunity to construct their learning. The learning they construct for themselves advances their budding culinary careers. Culinary educators guide the learning and design the modules that provide students with experiential learning opportunities. This study examined online design formats in which these experiential learning opportunities were delivered effectively, satisfying students, educators, and accreditors. Online culinary arts courses designed and delivered with weekly, interactive video conferencing as part of the weekly design were evaluated as most engaging. According to the results and findings of this study, culinary courses designed to promote interaction and engagement were evaluated as most effective, especially in terms of student satisfaction and success.

A key element of this study's online culinary arts delivery centered on transactional distance. "It (transactional distance) is a concept describing the universe of teacher-learner relationships that exist when learners and instructors are separated by space and by time" (Moore, 1997, p. 22). In other words, online education separates instructors and learners from each other by space and time. Instructors record lecture material from their university offices; students sit at home worldwide and in any time zone, reviewing the recorded lecture material and completing assignments at their leisure, any time of the day and any day of the week. While

instructors and students gain access to and engage in course material from any location, instructor-student engagement lessen the separation, regardless of delivery modality.

Taste is the topic that confounds and threatens the future of online culinary arts education. While taste is as unique to each individual as is a fingerprint, students must first gain the vocabulary to articulate their taste perception (see Appendix Q) before learning to adjust and adapt dishes to the taste perceptions of others. As this is a learning outcome for advanced culinary arts students, articulating personal taste perception should be considered the entry point and expected learning outcome of fundamental culinary arts students. In other words, learning to appropriately sear a beef filet to a specific degree of doneness may be effectively practiced, performed, and evaluated in the online environment, from home, while also asking students to describe their perception of taste, texture, and smell. Requiring students to sear a beef filet to a consistent and uniform flavor profile might be better practiced, performed, and evaluated in person, in the commercial kitchen, and under the watchful eye of an instructing Chef.

“How we describe what we taste is deeply rooted in the rest of the world around us. We think about tastes in terms of not only other foods, but a host of other sensations, emotions and experiences” (Magee, 2009, p. 42). Understanding this, it is important for students to develop personal understanding of their own taste perceptions and gain the ability to articulate that perception before focusing on food preparation and recipe execution that ensures consistently flavored dishes. Puputti (2020) suggested, “The fundamental reasons for individual variation in taste perception can arise from the differences in the peripheral or central processing of taste sensation as well as from subjective and environmental factors” (p. 11). Building on this understanding, students in fundamental, foundational culinary arts courses such as the courses

involved in this study, Food Production I and Food Production II, learn to recognize their own taste perceptions, which can be easily accomplished in the online environment.

Preparing foods that meet flavor, aroma, and mouthfeel specifics is addressed in advanced culinary arts courses that are not effective in the online environment and should be delivered in-person. As of this research and writing, technology does not exist that allows for an effective exploration of taste development of prepared foods via distance delivery of course content. This subject can and should be explored when technology emerges that will allow the chef instructor to understand smell and taste of students' practical work in spite of the location separation of online learning.

Regular and substantive interaction was redefined by the United States Department of Education, defining quality engagement between instructors and students. "One advantage of synchronous communication is that students receive immediate feedback. During online office hours, students can instant message the instructor with questions and get answers much more quickly than they would with e-mail. The corresponding disadvantages are that students must be able to instant message during a set time frame, and too many or too few may take advantage of the instructor's availability" (Mabrito, 2004, p. 2).

The literature indicates that instructors' regular and predictive engagement with students is a key factor in an effective course. Substantive interaction ensure that the engagement between instructors and students is content-focused and continues instructional dialogue. While mentioned in the discussion of 34 CFR § 600 as an essential for Title IV funding, according to Michael Moore's transactional distance theory, regular and substantive interaction shortens the virtual gap between instructor and student, student and student, as well as student and course

content. Regular and substantive interaction is a key factor in an effective culinary arts course, regardless of modality.

Stefan Ryll (2017) suggested that “effective instruction in online learning should include: clear and organized instruction, immediate student feedback, positive teacher presence, a sense of collaboration and community and technical support” (p. 26). While these elements were considered and applied to this study’s design of each course iteration, these elements should be considered and applied to other iterations of online culinary arts course design (see Appendix R). Protopsaltis & Baum (2019) wrote, “both proponents and skeptics of online education emphasize the need to design online courses that facilitate robust interactions as an essential component for improving the quality of learning and student outcomes and satisfaction” (p. 1). This is the future of effective online culinary arts education.

Describing ubiquitous computing, Cope and Kalantzis (2009) wrote, “The key is not the logic or technical specifications of the machines. Rather it is the new ways in which meaning is created, stored, delivered and accessed. This, we believe, will change the educational world in some fundamental ways—and also allow some older but good and disappointingly neglected educational ideas to work at last and work widely” (p. 582). Similarly, online culinary arts education has the potential to ‘change the educational world.’ It presents an opportunity for culinary educators to share knowledge and skills in new ways and students to gain new knowledge, obtain new skills, and create new meaning, utilizing current and emerging technologies.

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## APPENDIX A: IRB



### OFFICE OF THE VICE CHANCELLOR FOR RESEARCH & INNOVATION

Office for the Protection of Research Subjects  
805 W. Pennsylvania Ave., MC-095  
Urbana, IL 61801-4822

#### Notice of Exempt Determination

November 23, 2020

<b>Principal Investigator</b>	Mary Kalantzis
<b>CC</b>	Robert Hall
<b>Protocol Title</b>	<i>Understanding the Efficacy of Online Postsecondary Culinary Arts Education</i>
<b>Protocol Number</b>	21366
<b>Funding Source</b>	Unfunded
<b>Review Category</b>	Exempt 2 (ii)
<b>Determination Date</b>	November 23, 2020
<b>Closure Date</b>	November 22, 2025

This letter authorizes the use of human subjects in the above protocol. The University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects (OPRS) has reviewed your application and determined the criteria for exemption have been met.

The Principal Investigator of this study is responsible for:

- Conducting research in a manner consistent with the requirements of the University and federal regulations found at 45 CFR 46.
- Requesting approval from the IRB prior to implementing major modifications.
- Notifying OPRS of any problems involving human subjects, including unanticipated events, participant complaints, or protocol deviations.
- Notifying OPRS of the completion of the study.

Changes to an **exempt** protocol are only required if substantive modifications are requested and/or the changes requested may affect the exempt status.

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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## APPENDIX B: ACF KNOWLEDGE AND SKILL COMPETENCIES (IN-PERSON/ONLINE)

<b>Intro to Foodservice</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Define the philosophy of the hospitality industry and its role in providing customer service.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Trace the growth and development of the hospitality and tourism industry from its birth to its present day. Include names of restaurateurs, chefs, and hospitality entrepreneurs that helped to shape our industry in the past and present day.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. Discuss and evaluate the importance of professional ethics as it applies to the foodservice industry.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Outline the organization, structure and functional areas in various hospitality organizations as they pertain to the functions of menu planning, purchasing, food production and service, food and beverage controls, management, etc. and give a short description for each.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Identify and describe professional organizations associated with the hospitality and foodservice profession, and discuss these organizations role in preparing and advancing ones career in the industry.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Evaluate the types of professional career opportunities in the hospitality and foodservice industry with support of guest speakers, field trips and stages.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Discuss/evaluate industry trends as they relate to the various segments of the foodservice and hospitality industry.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Discuss and evaluate industry trade periodicals, books, and journals that can contribute to individual growth and learning as they pertain to technical skills.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Sanitation and Safety</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Identify microorganisms, which are related to food spoilage and food-borne illnesses; describe their requirements and methods for growth.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

2. Demonstrate acceptable procedures when preparing potentially hazardous foods to include time/temperature principles.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
3. Demonstrate good personal hygiene and health habits in a laboratory setting to include hand washing.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
4. Outline the requirements for proper receiving and storage of both raw and prepared foods.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Identify the Hazard Analysis Critical Control Point (HAACP) during all food handling processes as a method for minimizing the risk of food-borne illness.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. List the major reasons for and recognize signs of food spoilage and contamination.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Recognize sanitary and safety design and construction features of food production equipment and facilities. (i.e., NSF, UL, OSHA ADA, etc.).	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Review Safety Data Sheets (SDS) and explain their requirements in handling hazardous materials. Discuss right-to-know laws.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
9. Identify proper methods of waste disposal and recycling.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
10. Demonstrate appropriate emergency policies for kitchen and dining room injuries.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
11. Describe appropriate measures for insects, rodents and pest control eradication.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
12. Describe appropriate types and use of fire extinguishers used in the foodservice area.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
13. Review and apply the laws and rules of the regulatory agencies governing sanitation and safety in a foodservice operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Business and Math Skills</b>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
<i>Competencies Students will be able to:</i>			

1. a. Perform basic math functions to include fractions, weights and measurements.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
b. Demonstrate competency of scaling, measuring, weighing ingredients with a portion scale.			Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
2. a. Evaluate the components and functions of a standardized recipe b. Convert recipes using a yield formula to increase and decrease quantities. c. Cost a recipe giving the overall cost, individual cost and menu sales price. d. Calculate food cost to determine selling price using the factor method and/or percentage method. e. Determine the amounts of product needed in a baking and pastry recipe using the baker’s percentage method.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. Determine a butcher yield percentage to track cooking and carving loss, and determine the new yield and cost per lb.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. a. Determine beverage costs and percentages. b. Determine labor costs and percentages to include employee meals, benefits, fixed and variable labor hours.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Define controllable or variable expenses and discuss how prime costs can contribute to the overall variable costs.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Define and describe a profit/loss statement and assess how it used to determine profitability in a foodservice operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Prepare a yearly budget to include food, beverage, and labor, controllable and fixed costs while determining profit.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Perform costing calculations utilizing current technology.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
9. Identify marketing techniques to increase sales and profitability of restaurant operations.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Food Preparation</b>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
<i>Competencies Students will be able to:</i>			

1. Identify tools, small and large equipment used in a professional kitchen and demonstrate proper handling of these items to include safety, sanitation, and storage.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Demonstrate proficiency in using knives and small wares to achieve professional quality results when producing classical knife cuts used in various food preparation and cooking. a. Demonstrate use of chef's knife in preparing classical cuts to include julienne, batonnet, French fry, brunoise, small, medium and large dice, paysanne, rondelle, oblique, and tourne'. b. Demonstrate zesting, and segmenting fruit. c. Demonstrate dicing and mincing an onion, garlic and shallots. d. Demonstrate the use of a mandolin using various vegetables.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
3. Identify, describe, and utilize herbs, spices, and seasonings by themselves and in a combination that exemplify national and international cooking medians. a. Prepare an example of a spice rub. b. Prepare an example of a dried and fresh spice blend. c. Utilize a spice blend or herb blend in a culinary preparation. d. Assess student's knowledge in herb and spice identification and usage.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
4. Explain the factors that affect taste, how we perceive those tastes and what we can do to optimize a combination of seasonings and flavors when preparing and cooking food.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Define mise en place and demonstrate a combination of organizational skills, preparedness, and timing when it comes to food preparation, cooking and serving. a. Assess these skills through a well-developed rubric	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Define, and describe the process for all the cooking techniques used in moist, dry and combination cooking methods to include: steam, poach, simmer, boil, deep fry, sauté, pan-fry, grill, roast, poele, stew, and braise.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Prepare and cook a variety of proteins (including beef, chicken, pork, fish, game, lamb and veal), vegetables, legumes, grains, and starches using moist, dry and combination cooking methods. a. Moist heat methods to include steam, deep and shallow poach, simmer and boil. b. Dry heat methods to include deep fry, sauté, pan fry, grill, and roast. c. Combination cooking methods to include poêle, stew and braise. d. Using all moist, dry and combination cooking methods prepare proteins using chicken, beef, lamb, veal, fish and wild game.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance

<p>e. Using all moist, dry and combination cooking methods prepare a variety of rice (pilaf method and risotto method), wild rice, jasmine, and sushi.</p> <p>f. Using all moist, dry and combination cooking methods prepare a variety of potato dishes.</p> <p>g. Using all moist, dry and combination cooking methods prepare a variety of vegetables dishes.</p> <p>h. Using all moist, dry and combination cooking methods prepare a variety of grain dishes.</p>			
<p>8. Evaluate and analyze the preparation of a variety of proteins (including beef, chicken, pork, fish, game, lamb and veal), vegetables, legumes, grains, and starches using moist, dry and combination cooking methods.</p> <p>b. Moist heat methods to include steam, deep and shallow poach, simmer and boil.</p> <p>c. Dry heat methods to include deep fry, sauté, pan fry, grill, and roast.</p> <p>d. Combination cooking methods to include poêle stew and braise.</p>	<b>X</b>	<b>X</b>	<p>Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; Peer plate presentation evaluations</p>
<p>9. Define, and describe the process for making classical stocks, soups, and mother and compound sauces.</p>	<b>X</b>	<b>X</b>	<p>Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments</p>
<p>10. Demonstrate how to prepare and cook classical stocks, soups, and mother and compound sauces.</p> <p>a. Prepare a classical white and dark chicken, beef/veal stock.</p> <p>b. Prepare a classical fish or shellfish stock.</p> <p>c. Prepare a vegetable and or game stock.</p> <p>d. Prepare a clear soup to include a classical consommé.</p> <p>e. Prepare a cream soup using a roux.</p> <p>f. Prepare a puree soup.</p> <p>g. Prepare a specialty soup.</p> <p>h. Prepare each of the five mother sauces to include veloute, espagnole, béchamel, tomato, and butter sauce (to include Hollandaise and beurre blanc).</p> <p>i. One compound sauce from each mother sauce.</p>	<b>X</b>	<b>X</b>	<p>Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance</p>
<p>11. Evaluate and analyze the preparation of classical stocks, soups, and mother and compound sauces.</p> <p>a. Use a rubric in assessing the students’ skills in preparing the above items.</p>	<b>X</b>	<b>X</b>	<p>Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance</p>
<p>12. Utilize safety and sanitation practices when preparing, cooking and serving all food items in the professional kitchen.</p>	<b>X</b>	<b>X</b>	<p>Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance</p>
<p>13. Demonstrate the proper process in cooling, storing, labeling and dating, and reheating food utilizing the proper sanitary procedures when working with all food items.</p>	<b>X</b>	<b>X</b>	<p>Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance</p>

<p>14. Define, prepare, cook, evaluate and assess breakfast items:</p> <p>a. Prepare, eggs in the following ways: scrambles, over-easy, Sunny-side up, poached, and baked (custard or strata).</p> <p>b. Prepare a French and American style omelet, and an open-faced omelet (frittata).</p> <p>c. Prepare breakfast meats to include ham, sausage and or bacon.</p> <p>d. Prepare a batter and make pancakes, waffles and or crepes.</p> <p>e. Prepare a custard.</p> <p>f. Prepare a breakfast style potato to include one of the following: hash browns, lyonnaise, O'Brien, home fries, potato pancakes.</p> <p>g. Prepare a cereal to include granola, cream of wheat, oatmeal, grits or parfait.</p>	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
15. Demonstrate how to maximize food freshness, quality, safety and sanitation when serving hot foods and cold foods.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
16. In the preparation of food, items demonstrate effective techniques in presenting food that maximizes the flavor and esthetic quality of the products used.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance

<b>Garde Manger</b>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
<i>Competencies Students will be able to:</i>			
1. Identify tools, equipment and products typically used in Garde Manger with emphasis on proper food handling, including safety, sanitation, and storage.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Demonstrate proficiency using knives and garnishing tools to achieve professional quality results when producing garnishes for canapés, hors d'oeuvres and buffets to include vegetable, fruit, and other forms of food for decorative and edible purposes.	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
3. Explain the design principles and layout of a modern buffet, incorporating sanitation and off-premise catering challenges when feeding quantity foods.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
<p>4. Soups and Sauce:</p> <p>a. Identify cold soups and sauces used in the Garde Manger area of a foodservice establishment.</p> <p>b. Produce several types of cold soups and sauces using a food processor and blender</p> <p>c. Analyze and evaluate the quality of soups and sauces produced in conjunction with the foods served.</p>	<b>X</b>	<b>X</b>	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance

<p>5. Salads and Dressings:</p> <p>a. Identify the basic types of salads and their uses in the modern menu.</p> <p>b. Define basic types of salad dressings and produce a variety of salad dressings including emulsified, dairy based, vinaigrette and coulis.</p> <p>c. Produce mixed green, composed, entree, protein, starch and fruit salad.</p> <p>d. Analyze and evaluate the quality of salads and dressings produced</p>	<b>X</b>	<b>X</b>	<p>Synchronous – students cut/cook “live” during video conference session;</p> <p>Asynchronous and Hybrid – students video record cutting/cooking performance</p>
<p>6. Sandwiches:</p> <p>a. Explain the history and defining characteristics of the sandwich, as well as the most popular modern variations.</p> <p>b. Describe the techniques used in maintaining quality of ingredients and preparation methods used to ensure freshness when producing a sandwich.</p> <p>c. Produce an assortment of both hot and cold varieties of sandwiches.</p> <p>d. Assess and evaluate the quality of sandwiches produced.</p>	<b>X</b>	<b>X</b>	<p>Synchronous – students cut/cook “live” during video conference session;</p> <p>Asynchronous and Hybrid – students video record cutting/cooking performance</p>
<p>7. Canapés, Hors d' Oeuvres and Appetizers:</p> <p>a. Explain the history and defining characteristics of a hors d' oeuvre, canapé, and appetizer, as well as give examples of each.</p> <p>b. Describe the types of international items that can be used as hors d'oeuvres on a buffet line or as passed canapés.</p> <p>c. Produce an assortment of both hot and cold varieties of canapés, hors d'oeuvres, and appetizers.</p> <p>d. Assess and evaluate the quality of items produced.</p>	<b>X</b>	<b>X</b>	<p>Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments</p> <p>Synchronous – students cut/cook “live” during video conference session;</p> <p>Asynchronous and Hybrid – students video record cutting/cooking performance</p>
<p>8. Decoration:</p> <p>a. Demonstrate proficiency using knives and garnishing tools to achieve professional quality results when producing vegetable and or fruit carvings.</p> <p>b. Produce an attractive fruit, cheese and vegetable tray using form and functionality.</p>	<b>X</b>	<b>X</b>	<p>Synchronous – students cut/cook “live” during video conference session;</p> <p>Asynchronous and Hybrid – students video record cutting/cooking performance</p>
<p>9. Food preservation:</p> <p>a. Explain the history and technical importance of curing, brining, pickling and smoking in preserving foods to maintain, flavor, quality and sanitation.</p> <p>b. Produce various types of pickled, smoked, and cured items that represent the Garde Manager pantry.</p> <p>c. Assess and evaluate the quality of items produced.</p>	<b>X</b>	<b>X</b> <b>???</b>	<p>Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments</p> <p>Highlighted may be difficult online, as students may lack access to proper equipment</p>

<p>10. Forcemeats and Aspic:</p> <p>a. Define the various types of forcemeats including sausage, pate, terrine and, mousse.</p> <p>b. Produce an assortment of sausages using casings and free form.</p> <p>c. Produce a variety of pates, mousses and or terrines to include vegetables and proteins.</p> <p>d. Utilize different types of binders in the process of making a forcemeat to include aspic, panadà, or other binding agent.</p> <p>e. Utilize aspic as a form of garnish or binder in a salad, pate, or canapé</p> <p>f. Assess and evaluate the quality of items produced.</p>	<b>X</b>	<b>X</b>  <b>???</b>	<p>Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments</p> <p>Highlighted may be difficult online, as students may lack access to proper equipment</p>
<p>11. Cheese:</p> <p>a. Describe, identify, and evaluate the various categories of cheese and include several types and names of cheese associated with each category.</p> <p>2. Identify the largest cheese producing areas of the United States and other parts of the world.</p> <p>3. Describe how best to use various types of cheese and utilize cheese in a recipe.</p> <p>4. Assess and evaluate the quality of items produced.</p>	<b>X</b>	<b>X</b>	<p>Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments</p> <p>Synchronous – students cut/cook “live” during video conference session;</p> <p>Asynchronous and Hybrid – students video record cutting/cooking performance</p>


<b>Beverage Management</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Identify local, state and federal laws pertaining to the purchase and service of alcoholic beverages including the effects of the Dram Shop Act on foodservice operations that serve alcohol.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Discuss and explain the basic production process for distillation and fermentation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. Distinguish wines by grape and/or other fruit variety, country, growing region and production process.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Analyze and evaluate the importance of the on-going relationship between beverages and food and discuss that relationship in reference to menu planning.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Identify and discuss the presentation and service of alcoholic, non-alcoholic and beverages, including coffee and tea.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Identify equipment and glassware used for beverage preparation and service.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

7. Discuss opening and closing procedures of a beverage operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Discuss the fundamentals and importance of responsible alcohol service; identify the levels and signs of intoxication and methods to control excessive consumption by guests. (Recommendation alcohol training certification).	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Basic Baking</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Define Baking terminology and explain how to apply them.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Identify tools, small and large equipment used in a commercial bakeshop and demonstrate proper handling of these items to include safety, sanitation, and storage.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
3. Identify baking ingredients and explain their function in the formulation of baking and pastry recipes.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Demonstrate math skills that apply to baking to include, scaling, measuring and baker’s percentage.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Breads & Yeast Products: a. Describe the process of bread production with natural and chemical leavening agent to include the mixing methods. b. Describe the process of making laminated doughs. c. Produce an assortment of natural and chemical leavened breads and laminated doughs. d. Assess and evaluate the quality of natural and chemical leavened breads and laminated doughs.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
6. Pies and tarts: a. Define and describe the various types of pies and tarts and explain the process of making different types of pie crusts to include the mixing methods. b. Produce a variety of pies and tarts utilizing different mixing methods, and types of fillings. c. Assess and evaluate the quality of the finished products produced.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
7. Cookies and Brownies: a. Describe the variety of cookie types and the	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in

mixing methods utilized to produce them. b. Produce a variety of cookies utilizing various mixing methods. c. Assess and evaluate the quality of the cookies produced.			LMS; student ppt/infographic presentation; worksheet assignments Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
8. Cakes and Icings: a. Describe the variety of cake types and the mixing methods utilized to produce them. b. Describe the variety of icings and toppings available in, and covering various cakes c. Prepare a variety of cakes utilizing the various mixing methods and finish each cake with a variety of icings, and toppings. d. Demonstrate basic cake decorating skills in icing a cake. e. Assess and evaluate the quality and decorative skills of the finished cakes.	X	X	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
9. Custards, Creams and Sauces: a. Describe the various types of custards, creams and sauces available in the bakeshop. b. Prepare an assortment of custards, creams and sauces used as part of pastry items or accompany pastry items. c. Assess and evaluate the final products when applied to the accompanying pastries.	X	X	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
10. Assorted Pastries: a. Define and describe pastry items to include pate choux, meringue, phyllo, and batters (pancake, waffle, fritters, and crepes) and explain the method of preparing these items. b. Prepare a variety of pastry items to include eclairs or cream puffs, meringue’s, phyllo, and batters and include fillings, icings, and garnishes. c. Assess and evaluate the quality of the finished products to include all of these items.	X	X	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
11. Utilize safety and sanitation practices when preparing, baking and serving all food items in the professional bakeshop.	X	X	Synchronous – students cut/cook “live” during video conference session; Asynchronous and Hybrid – students video record cutting/cooking performance
12. Discuss recipe modification to create nutritionally beneficial alternatives to baked goods and desserts.	X	X	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments


<b>Purchasing and Receiving</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Discuss the flow of goods in a foodservice operation and the role of ordering, receiving and issuing.	X	X	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

2. Describe purchasing methods used in foodservice operations (i.e. bids, cost+, purchase orders, phone, sales quotes, etc.).	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. Identify dry, refrigerated and frozen foods used in a commercial kitchen.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. List factors that affect food prices, menu costs and quality such as market fluctuation, seasonality, product availability, supply and demand.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Explain the importance of a written food specification when ordering food and describe the components that are included in the food spec.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Discuss and analyze the importance of sanitation and HACCP procedures that affect receiving and issuing of goods in a foodservice operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Describe proper techniques of receiving and storing fresh, frozen, and dry proteins, produce, eggs, dairy and dry goods.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Explain regulations for inspecting and grading meats, poultry, seafood, eggs, dairy products, fruits and vegetables as outlined in the USDA, National Association of Meat Purveyors, and other governmental regulatory agencies.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
9. Explain and demonstrate the proper receiving and issuing procedures for non-food items such as chemicals in a foodservice operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments  Highlighted can be accomplished in-person at the culinary school or at place of employment or externship
10. Describe, write and use a food requisition, when ordering, receiving and issuing a food product.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
11. Receive, store and issue food products utilizing written specs, proper food handling procedures.	<b>X</b>		Cannot be accomplished online. Must be in-person, at place of employment, or externship
12. Define, describe and explain the importance of a par system when ordering, receiving and storing food and the terms FIFO and LIFO, and how they are used effectively to maintain proper storage procedures.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
13. Describe various technologies available to assist in the process of ordering and inventorying of food products.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

14. Discuss inventory control procedures to deter theft and spoilage that can affect food costs.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
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<b>Nutrition</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Identify and Discuss dietary guidelines and recommended dietary allowances based on current USDA Food Guideline principles and food groups.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Describe primary characteristics, functions and major food sources of major nutrients.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. List the primary characteristics, functions and sources of vitamins, water and minerals.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Interpret food labels in terms of the portion size, ingredients and nutritional value.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Identify common food allergies and determine appropriate substitutions. (i.e. Gluten, sugar, lactose free).	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Evaluate and analyze recipes and menus using dietary guideline recommendations, food guides and food labels.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Discuss contemporary nutritional issues to include specialty diets, dietary trends, and religious dietary laws (i.e. vegetarianism, heart-healthy menus, food allergies, alternative dieting, vegetarian, etc.).	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Discuss and demonstrate cooking techniques that apply sound nutritional principles and current industry trends.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Dining Room Service</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Describe the mechanics of proper table service as it pertains to American, English, Russian, French, and buffet service.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Explain the importance of communication between the front and back of the house employees.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in

			LMS; student ppt/infographic presentation; worksheet assignments
3. Describe the various functions of dining service personnel.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Perform the duties associated with a front and back server.	<b>X</b>		Cannot be accomplished online. Must be in-person, at place of employment, or externship
5. Discuss sales techniques used in increasing the guest check average.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Develop a guest service process when handling difficult guest situations to include accommodating the disabled.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Analyze and assess the training procedures required when working with the dining room personnel	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Explain the importance of using proper automated procedures when processing guest checks (include POS, Square, and Google).	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Menu Planning</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Identify basic menu principles when determining layout and design.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Describe the various types of menu available and explain when and how they are to be used.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. Discuss the rationale for a seasonal menu and analyze how it may affect the overall menu costs, food quality and availability.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Create menu descriptions following established truth-in-menu guidelines.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Apply principles of nutrition when developing recipes and menu choices to include labeling laws that address allergies and raw food.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Determine food, labor cost and equipment utilization when determining menu item placement, flow of the operation, and successful manageability of the foodservice operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

7. Determine menu prices using the percentage or factor methods in order to determine industry standard food costs.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Discuss menu-planning resources to include internet, professional sources, vendors, and foodservice associations.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
9. Explain the importance of product mix, and check average and their impact on profit contribution.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
10. Develop a menu layout for a foodservice operation to include an example of a cyclical, a la carte, prix-fixe, table d' hôte, or buffet.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Human Relations Management</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Describe process of management through effective communication skills and interpersonal relationships.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. a. Identify the difference between a manager and a leader and describe the qualities of each. b. Summarize leadership styles and analyze when each is most appropriate.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. Describe the supervisor's role in decision-making, problem solving and delegation of duties.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Describe the characteristics of a job description and develop a written example with job specifications.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Define the term motivation and give examples of motivational techniques used with employees. Analyze the effectiveness of each motivational example.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
6. Assess and evaluate methods of conflict resolution and grievance procedures (union /non-union) when it comes to problem solving.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
7. Identify types of stress found in the workplace and analyze positive ways of dealing with it.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
8. Explain the importance of time management and give examples to include other organizational management techniques that provide labor cost effectiveness.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

9. Discuss state and federal employment laws as they pertain to legal issues related to managerial decisions (sexual harassment, discrimination, violence/anger and unemployment compensation).	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
10. Explain the purpose of a mission and vision statement and how they are used in organizational management.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
11. Describe the process of hiring, training, disciplining and or firing an employee based on human resources, state and federal laws that affect these processes.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

<b>Environmental Sustainability</b>			
<i>Competencies Students will be able to:</i>	<b>In-Person</b>	<b>Online</b>	<b>Example online activities</b>
1. Explain the importance of sustainable practices in a foodservice operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
2. Define the terms energy efficient, and food miles as they apply to the locavore movement.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
3. Describe and assess the importance of menu development when it comes to product availability and its impact on the environment.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
4. Describe the variety of sustainable practices available to the foodservice operator, listing how they would apply to each area of the foodservice operation.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments
5. Implement a variety of simple sustainable practices in the kitchen that will help to control foodservice costs and displays good environmental stewardship.	<b>X</b>	<b>X</b>	Open discussion in synchronous, video conference session; discussion board in LMS; student ppt/infographic presentation; worksheet assignments

## APPENDIX C: FOOD II WEEKLY NARRATIVE REFLECTION

### Weekly Lab Reflection

---



Name	
Week #	
Assignment	

What concerns did you have about this assignment before beginning?

How did you prepare for this week's assignment?

What struggles/challenges did you face preparing for this assignment?

What could you have done to improve your preparedness for this assignment?

What struggles/challenges did you face while cooking this assignment?

Have you used this cooking method/technique before?

If so, how was this experience different?

--

If not, what did you think about this experience?

--

What will you do differently the next time you use this cooking method/technique?

--

After this dish is finished and presented, describe the following:

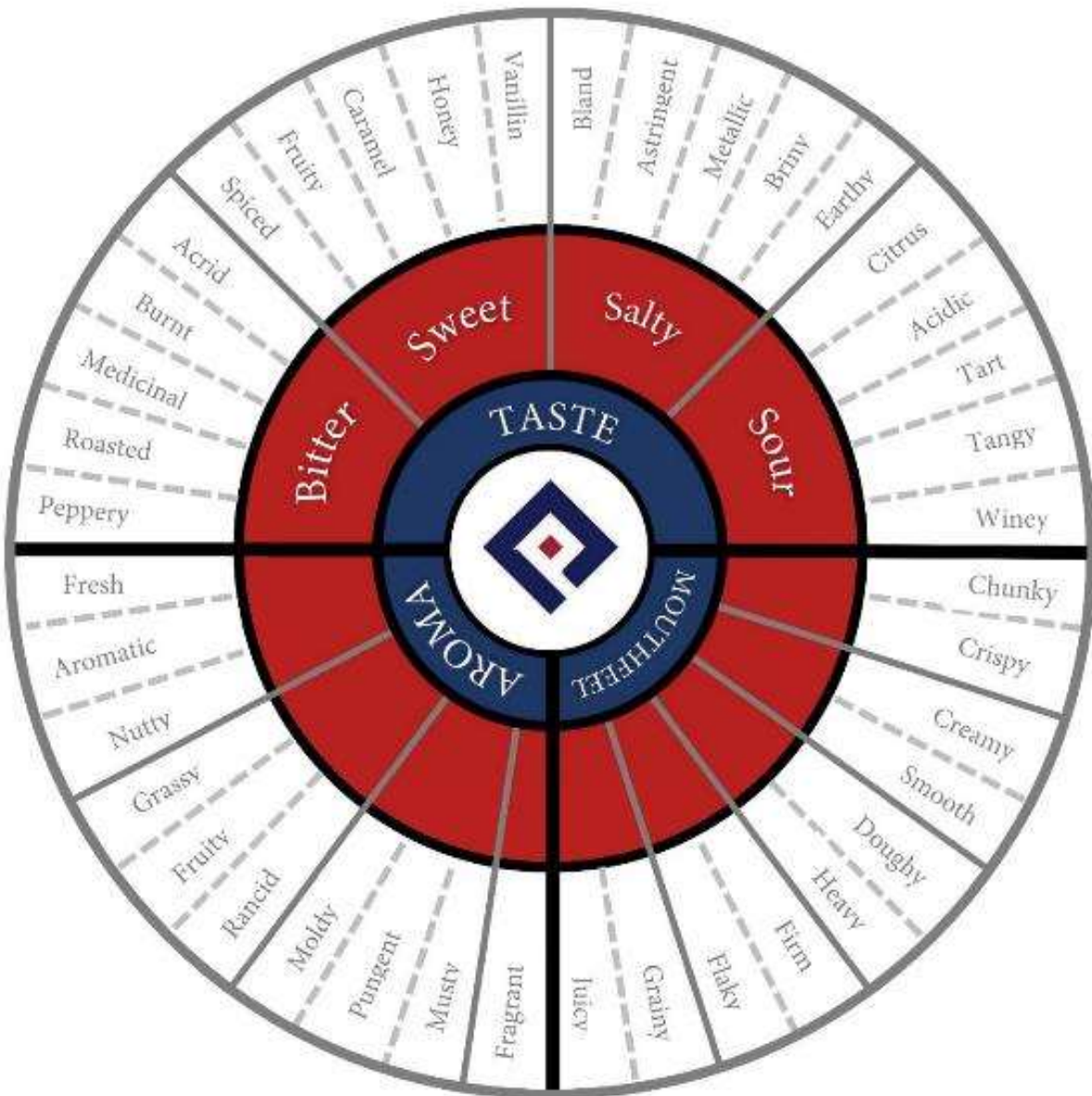
Taste	
Mouthfeel	
Aroma	

How would you describe this dish on a restaurant menu?

--

## APPENDIX D: UAPTC FOOD II FLAVOR WHEEL

### UAPTC Flavor Wheel



## **APPENDIX E: INFORMED CONSENT**

### **Understanding the Efficacy of Online Postsecondary Culinary Arts Education**

You are being asked to participate in a voluntary research study. The purpose of this study is to understand whether or not a culinary arts lab class can be delivered effectively online. Participating in this study will involve regular engagement in a culinary arts class delivered in an online environment, completing weekly modules, practicing hands-on classical cutting, uploading digital pictures of your cutting progress using your cell phone, uploading simple, unedited video of your cutting progress using your cell phone, and participating in a live, face-to-face practical knife skills exam; your participation will last 1 academic semester (16 weeks). Risks related to this research include minor personal injury from your chef knife and consequences of the stress of involvement in higher education; benefits related to this research include establishing a format for the effective delivery of distance and online culinary arts education, increasing options for culinary arts students and opportunities for culinary schools and other culinary arts educational programs. The alternative to participating in this study is to decline participation without consequence.

Principal Investigator Name and Title: Mary Kalantzis, Professor  
Department and Institution: Educational Policy, Organization, and Leadership, UIUC  
Contact Information: kalantzi@illinois.edu  
Sponsor: N/A

#### **What procedures are involved?**

You will be asked to participate in weekly, online modules. Modules include watching short online videos, participating in online discussion and chat groups, uploading documents (module key word definitions), online quizzes, practicing new culinary skills, uploading graphic and video artifacts of personal production, and participation in a single, face-to-face practical exam at the University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute. Each module should take 2-3 hours of active participation, 3-6 hours of passive participation, and include approximately 1 hour of module assessment.

#### **Will my study-related information be kept confidential?**

Faculty, staff, students, and others with permission or authority to see your study information will maintain its confidentiality to the extent permitted and required by laws and university policies. The names or personal identifiers of participants will not be published or presented.

**Will I be reimbursed for any expenses or paid for my participation in this research?**

You will not be offered payment for being in this study. You will receive academic grade and credit according to your performance in the class, regardless and independent of your participation in the study.

**Can I withdraw or be removed from the study?**

If you decide to participate, you are free to withdraw your consent and discontinue participation at any time. Your participation in this research is voluntary. Your decision whether or not to participate, or to withdraw after beginning participation, will not affect your current or future dealings with the University of Illinois at Urbana-Champaign.

The researchers also have the right to stop your participation in this study without your consent if they believe it is in your best interests, you were to object to any future changes that may be made in the study plan, and/or researchers postpone or end the study.

**Will data collected from me be used for any other research?**

Your de-identified information could be used for future research without additional informed consent.

**Who should I contact if I have questions?**

If you have questions about this project, you may contact the Principal Investigator Dr. Mary Kalantzis at 217-300-6992 or [kalantzi@illinois.edu](mailto:kalantzi@illinois.edu) or the Researcher Robert Hall at 501-230-5847 or [rhall@uaptc.edu](mailto:rhall@uaptc.edu). If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects at 217-333-2670 or via email at [irb@illinois.edu](mailto:irb@illinois.edu).

Please print this consent form if you would like to retain a copy for your records.

I have ready and understand the above consent form. I certify that I am 18 years old or older. By signing the Informed Consent form, I indicate my willingness to voluntarily take part in this study.

---

**Signature**

---

**Date**

## APPENDIX F: COURSE SCHEDULES

### CUL 1302 Food Production I

#### Tentative Course Schedule

DATE	LESSON	LECTURE	LAB	HOMEWORK
01/18 – 01/21	1	<input type="checkbox"/> Introduction of Syllabus <input type="checkbox"/> Uniform, Attendance, Grading <input type="checkbox"/> Cleaning and Sanitizing <input type="checkbox"/> Master Cleaning Schedules	<input type="checkbox"/> Kitchen Overview, Walk-Through, and Tool and Equipment Identification  <input type="checkbox"/> Set up and break down stations	READ: <i>On Cooking</i> : <input type="checkbox"/> Chapter 1  MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 2-7  BLACKBOARD: <input type="checkbox"/> “Who Am I?”
01/24 – 01/28	2	<input type="checkbox"/> Chapter 1 - PROFESSIONALISM  <input type="checkbox"/> Kitchen Math	<input type="checkbox"/> Knife Sharpening, Care, and Use  <input type="checkbox"/> Knife Cuts – Overview	READ: <i>On Cooking</i> : <input type="checkbox"/> Chapter 5 <input type="checkbox"/> Chapter 10  MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 8-20  BLACKBOARD: <input type="checkbox"/> Chapter 1 Quiz  <input type="checkbox"/> Chapter 5, 10 Key Terms
01/31 – 02/04	3	<input type="checkbox"/> Chapter 5 – TOOLS & EQUIPMENT  <input type="checkbox"/> Principles of Cooking (ch. 10)  <input type="checkbox"/> Kitchen Math	<input type="checkbox"/> Knife Sharpening  <input type="checkbox"/> Knife Cuts <ul style="list-style-type: none"> <li>• Rough Chop</li> <li>• Slice (onion)</li> <li>• Dice (onion)</li> </ul>	READ: <i>On Cooking</i> : <input type="checkbox"/> Chapter 4 <input type="checkbox"/> Chapter 36  MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 21-35  BLACKBOARD: <input type="checkbox"/> Chapter 5 Quiz  <input type="checkbox"/> Chapter 4, 36 Key Terms
02/07 – 02/11	4	<input type="checkbox"/> Chapter 4 – MENUS & RECIPES	<input type="checkbox"/> Knife Skills Practical #1	READ: <i>On Cooking</i> : <input type="checkbox"/> Chapter 9 <input type="checkbox"/> Chapter 7

		<input type="checkbox"/> Basic Plate Presentation (ch. 36) <input type="checkbox"/> Kitchen Math	<input type="checkbox"/> Knife Cuts <ul style="list-style-type: none"> <li>• Mince</li> <li>• Paste</li> <li>• Chiffonade</li> <li>• Concasse</li> <li>• Segment</li> <li>• Parisian</li> </ul>	MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 36-47 BLACKBOARD: <input type="checkbox"/> Chapter 4 Quiz <input type="checkbox"/> Chapter 9, 7 Key Terms
02/14 – 02/18	5	<input type="checkbox"/> Chapter 9 – MISE EN PLACE <input type="checkbox"/> Herbs & Spices (ch. 7) <input type="checkbox"/> Kitchen Math	<input type="checkbox"/> Knife Cuts <ul style="list-style-type: none"> <li>• Mince</li> <li>• Paste</li> <li>• Chiffonade</li> <li>• Concasse</li> <li>• Segment</li> <li>• Parisian</li> </ul> <p style="text-align: center;"><b><i>Curry</i></b></p>	READ: <i>On Cooking:</i> <input type="checkbox"/> Chapter 2 <input type="checkbox"/> Chapter 11, 12 MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 36-47 BLACKBOARD: <input type="checkbox"/> Chapter 9 Quiz <input type="checkbox"/> Chapter 2, 11, 12 Key Terms
02/21 – 02/25	6	<input type="checkbox"/> Chapter 2 – FOOD SAFETY & SANITATION <input type="checkbox"/> Stocks (ch. 11, 12) <input type="checkbox"/> Kitchen Math	<input type="checkbox"/> Knife Cuts <ul style="list-style-type: none"> <li>• Bias</li> <li>• Rondelle</li> <li>• Oblique</li> <li>• Paysanne</li> <li>• Lozenge</li> </ul> <p style="text-align: center;"><b><i>Chicken Stock, Cream of Chicken Soup</i></b></p>	READ: <i>On Cooking:</i> <input type="checkbox"/> Chapter 3 <input type="checkbox"/> Chapter 11, 12 MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 47-55 BLACKBOARD: <input type="checkbox"/> Chapter 2 Quiz <input type="checkbox"/> Chapter 3, 11, 12 Key Terms
02/28 – 03/04	7	<input type="checkbox"/> Chapter 3 – NUTRITION <input type="checkbox"/> Soups and Sauces (ch. 11, 12) <input type="checkbox"/> Kitchen Math	<input type="checkbox"/> Knife Cuts <ul style="list-style-type: none"> <li>• Bias</li> <li>• Rondelle</li> <li>• Oblique</li> <li>• Paysanne</li> <li>• Lozenge</li> </ul> <p style="text-align: center;"><b><i>Fish Stock, Shrimp Bisque</i></b></p>	READ: <i>On Cooking:</i> <input type="checkbox"/> Chapter 25 MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 47-55 BLACKBOARD: <input type="checkbox"/> Chapter 3, 11, 12 Quiz <input type="checkbox"/> Chapter 25 Key Terms
03/07 – 03/11	8	<input type="checkbox"/> Composed Salads & Dressings (ch. 25) <input type="checkbox"/> Kitchen Math	<input type="checkbox"/> Knife Skills Practical #2 <input type="checkbox"/> Knife Cuts <ul style="list-style-type: none"> <li>• Pont Neuf</li> <li>• Batonnet</li> <li>• Allumette</li> </ul>	READ: <i>On Cooking:</i> <input type="checkbox"/> Chapter 23, 27 MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 56-62

			<ul style="list-style-type: none"> <li>• Julienne</li> <li>• Fine Julienne</li> </ul> <p><b><i>Pasta Salad, Vinaigrette</i></b></p>	<p>BLACKBOARD:</p> <p><input type="checkbox"/> Chapter 25 Quiz</p> <p><input type="checkbox"/> Chapter 23, 27 Key Terms</p>
03/14 – 03/18	9	<p><input type="checkbox"/> Sandwiches (ch. 27)</p> <p><input type="checkbox"/> Potatoes (ch. 23)</p> <p><input type="checkbox"/> Kitchen Math</p>	<p><input type="checkbox"/> Knife Cuts</p> <ul style="list-style-type: none"> <li>• Pont Neuf</li> <li>• Batonnet</li> <li>• Allumette</li> <li>• Julienne</li> <li>• Fine Julienne</li> </ul> <p><b><i>Chicken Salad Sandwich. French Fries</i></b></p>	<p>READ: <i>On Cooking:</i></p> <p><input type="checkbox"/> Chapter 8</p> <p>MATH: <i>Pro. Kitchen Math</i></p> <p><input type="checkbox"/> Pgs 56-62</p> <p>BLACKBOARD:</p> <p><input type="checkbox"/> Chapter 23, 27 Quiz</p> <p><input type="checkbox"/> Chapter 8 Key Terms</p> <p><input type="checkbox"/> Chapter 8 Cheese Definitions</p>
03/21 – 03/25		SPRING BREAK		
03/28 – 04/01	10	<p><input type="checkbox"/> Cheese (ch. 8)</p> <p><input type="checkbox"/> Science of Taste</p> <p><input type="checkbox"/> Kitchen Math</p>	<p><input type="checkbox"/> Knife Cuts</p> <ul style="list-style-type: none"> <li>• Large Dice</li> <li>• Medium Dice</li> <li>• Small Dice</li> <li>• Brunoise</li> </ul> <p><b><i>Cheese Tasting</i></b></p>	<p>READ: <i>On Cooking:</i></p> <p><input type="checkbox"/> Chapter 29</p> <p>MATH: <i>Pro. Kitchen Math</i></p> <p><input type="checkbox"/> Pgs 214-221</p>
04/04 – 04/08	11	<p><input type="checkbox"/> Hors d'Oeuvres (ch. 29)</p> <p><input type="checkbox"/> Kitchen Math</p>	<p><input type="checkbox"/> Knife Cuts</p> <ul style="list-style-type: none"> <li>• Large Dice</li> <li>• Medium Dice</li> <li>• Small Dice</li> <li>• Brunoise</li> </ul> <p><b><i>Canapés, Stuffed Mushrooms, Bruschetta</i></b></p>	<p>READ: <i>On Cooking:</i></p> <p><input type="checkbox"/> Chapter 11, 18, 22, 23</p> <p>MATH: <i>Pro. Kitchen Math</i></p> <p><input type="checkbox"/> Pgs 222-230</p> <p>BLACKBOARD:</p> <p><input type="checkbox"/> Chapter 29 Quiz</p> <p><input type="checkbox"/> Chapter 11, 18, 22, 23 Key Terms</p>
04/11 – 04/15	12	<p><input type="checkbox"/> Poultry (ch. 18)</p> <p><input type="checkbox"/> Sauce (ch. 11)</p> <p><input type="checkbox"/> Vegetables (ch. 22)</p> <p><input type="checkbox"/> Rice (ch. 23)</p> <p><input type="checkbox"/> Kitchen Math</p>	<p><input type="checkbox"/> Knife Skills Practical #3</p> <p><input type="checkbox"/> Knife Cuts</p> <ul style="list-style-type: none"> <li>• Tourné</li> </ul> <p><input type="checkbox"/> Fabricate a Chicken</p> <p><b><i>Seared Chicken Breast, Pan Sauce, Rice Pilaf, Sautéed Veggies</i></b></p>	<p>READ: <i>On Cooking:</i></p> <p><input type="checkbox"/> Chapter 21, 31, 32</p> <p>MATH: <i>Pro. Kitchen Math</i></p> <p><input type="checkbox"/> Pgs 231-240</p> <p>BLACKBOARD:</p> <p><input type="checkbox"/> Chapter 37 Quiz</p> <p><input type="checkbox"/> Chapter 21, 31, 32 Key Terms</p>

04/18 – 04/22	13	<input type="checkbox"/> Breakfast & Brunch (ch. 21) <input type="checkbox"/> Quick Breads (ch. 31) <input type="checkbox"/> Yeast Breads (ch. 32)	<input type="checkbox"/> Research Presentations  <i>Assorted Breakfast Breads, Cinnamon Rolls, Quiche, Omelette</i>	MATH: <i>Pro. Kitchen Math</i> <input type="checkbox"/> Pgs 241-247
04/25 – 04/29	14	*** Final Practical Exam ***		
05/02 – 05/10	15	*** Final Written Exam ***		

**Final Exam Schedule:** Apr 25 – May 01 (Due 05/01 11:59pm) – Final Practical Exam  
May 02 – May 10 (Due 05/10 12:00pm) – Final Written Exam

\*\*\* *Knife Skills Exams, Final Practical Exam, Final Written Exam and weekly Labs* **CANNOT** be made up.

Disclaimer: This schedule is a guide for the semester. The instructor reserves the right to amend the schedule as necessary.

## CUL 1303 Food Production II

### Tentative Course Schedule

DATE	LESSON	LECTURE	LAB	HOMEWORK
01/18 – 01/21	1	<ul style="list-style-type: none"> <li>Review of Syllabus</li> <li>Culinary Math: Recipe Size Conversion</li> <li>Review: Sanitation</li> <li>Mise en Place and Station Set-Up</li> <li>How to Prepare for Labs and Menus</li> </ul>	Kitchen Walk-Through	READ: <i>On Cooking</i> : <input type="checkbox"/> Chapter 10 <input type="checkbox"/> Pages 187, 311, 440, 674-684  MATH: <input type="checkbox"/> Prep/Par List  BLACKBOARD: <input type="checkbox"/> Course Agreement <input type="checkbox"/> Ch 10 Key Terms
01/24 – 01/28	2	Chapter 10 – PRINCIPLES OF COOKING  Pan Fry – pgs 187, 311, 440 Pasta – pgs 675-684	<u><b>Menu – Pan Fry &amp; Pasta</b></u> <ul style="list-style-type: none"> <li>Pan Fired Chicken with Pan Gravy</li> <li>Fried Pasta</li> <li>Maple Glazed Carrots</li> </ul>	READ: <i>On Cooking</i> : Chapter 18 & 36 Pages 183, 297, 429, 430, 654-656, 663, 184  BLACKBOARD: Chapter 10 Quiz  Chapter 18 & 36 Key Terms
01/31 – 02/04	3	Chapter 18 – POULTRY Chapter 36 – PLATE PRESENTATION  Roast – pgs 183, 297, 429 Truss – pg 430 Potatoes – pgs 654-656, 663 Sauté – pg 184	<u><b>Menu – Roast/Truss</b></u> <ul style="list-style-type: none"> <li>Roasted Whole Game Hen with Pan Sauce</li> <li>Garlic Mashed Potatoes</li> <li>Sautéed Broccoli Rabe</li> </ul>	READ: <i>On Cooking</i> : Chapter 17 Pages 89, 179+, 197-199, 322  BLACKBOARD: Chapter 18 & 36 Quiz  Chapter 17 Key Terms
02/07 – 02/11	4	Chapter 17 – PORK  Sous Vide – pgs 89, 179, 197-199, 322	<u><b>Menu – Sous Vide</b></u> <ul style="list-style-type: none"> <li>Sous Vide Rosemary Garlic Pork Tenderloin</li> <li>Duxelles Sauce</li> <li>4 Cheese Risotto</li> <li>Green Beans Amandine</li> </ul>	READ: <i>On Cooking</i> : Chapter 14 Pages 182, 298  BLACKBOARD: Chapter 17 Quiz  Chapter 14 Key Terms
02/14 – 02/18	5	Chapter 14 – BEEF  Grill – pgs 182, 298	<u><b>Menu – Grill</b></u> <ul style="list-style-type: none"> <li>Grilled Ribeye</li> <li>Roasted Fingerling Potatoes</li> <li>Broccoli Amandine</li> </ul>	READ: <i>On Cooking</i> : Chapter 13 Pages 196  BLACKBOARD: Chapter 14 Quiz

				Chapter 13 Key Terms
02/21 – 02/25	6	Chapter 13 – PRINCIPLES OF MEAT COOKERY  Sear – pg 196	<b><u>Menu – Sear</u></b> <ul style="list-style-type: none"> <li>• Filet au Poivre</li> <li>• Potatoes Duchesse</li> <li>• Braised Brussels Sprouts</li> </ul>	READ: <i>On Cooking</i> : Chapter 21 Pages 931-936  BLACKBOARD: Chapter 13 Quiz  Chapter 21 Key Terms
02/28 – 03/04	7	Chapter 21 – EGGS AND BREAKFAST  Muffins – pgs 931-936	<b><u>Menu – Breakfast Cookery</u></b> <ul style="list-style-type: none"> <li>• Poach</li> <li>• French Omelet</li> <li>• Crepes</li> <li>• Muffins</li> </ul>	READ: <i>On Cooking</i> : Chapter 20 Pages 191-192, 519-522, 193, 625  BLACKBOARD: Chapter 21 Quiz  Chapter 20 Key Terms
03/07 – 03/11	8	Chapter 20 – FISH & SHELLFISH  Poach – pgs 191-192, 519-522 Boiling – pgs 193, 625	<b><u>Menu – Poach</u></b> <ul style="list-style-type: none"> <li>• Whole Poached Salmon</li> <li>• Fillets of Sole Bonne Femme</li> <li>• Boiled New Potatoes</li> <li>• Sautéed Spinach &amp; Tomatoes</li> </ul>	READ: <i>On Cooking</i> : Chapter 23 Pages 194, 517-518, 629  BLACKBOARD: Chapter 20 Quiz  Chapter 23 Key Terms
03/14 – 03/18	9	Chapter 23 – POTATO, GRAINS, & PASTA  Steam – pgs 194, 517-518, 629	<b><u>Menu – Steam</u></b> <ul style="list-style-type: none"> <li>• Red Snapper en Papillote (with Veggies)</li> <li>• Rice Pilaf</li> </ul>	READ: <i>On Cooking</i> : Chapter 12 Pages 196, 318 Pages 196, 316, 631  BLACKBOARD: Chapter 23 Quiz  Chapter 12 Key Terms
03/21 – 03/25	X	SRING BREAK		
03/28 – 04/01	10	Chapter 12 – SOUPS  Stew – pgs 196, 318 Braise - 196, 316, 631	<b><u>Menu – Stew &amp; Braise</u></b> <ul style="list-style-type: none"> <li>• Cioppino</li> <li>• Moqueca de Camarao</li> <li>• Bouillabaise</li> <li>• Garlic Bread</li> </ul>	READ: <i>On Cooking</i> : Chapter 10 Pages 183, 313, 515  BLACKBOARD: Chapter 12 Quiz  Chapter 10 Fat Fryer Worksheet
04/04 – 04/08	11	Chapter 10 – PRINCIPLES OF COOKING  Deep Fry – pgs 188, 313, 515	<b><u>Menu – Deep Fry</u></b> <ul style="list-style-type: none"> <li>• Fried Catfish</li> <li>• Beer Battered Onion Rings</li> <li>• Tempura Veggies</li> </ul>	READ: <i>On Cooking</i> : Chapter 22 Pages 678-684  BLACKBOARD:

			<ul style="list-style-type: none"> <li>• Remoulade Sauce</li> <li>• French Fries</li> </ul>	Chapter 22 Key Terms
04/11 – 04/15	12	Chapter 22 – VEGETABLES Fresh Pasta – pgs 678-684	<u><b>Menu – Sauté &amp; Pasta</b></u> <ul style="list-style-type: none"> <li>• Rosemary &amp; Garlic Grilled Shrimp</li> <li>• Handmade Pasta</li> <li>• Pesto</li> <li>• Sautéed Vegetables</li> </ul>	READ: <i>On Cooking</i> : Chapter 28 Page 180,184, 306-309  BLACKBOARD: Chapter 22 Quiz  Chapter 28 Key Terms
04/18 – 04/22	13	Chapter 28 – CHARCUTERIE Braise – pg 180, 184, 306-309	<u><b>Menu – Smoke</b></u> <ul style="list-style-type: none"> <li>• Brine &amp; Dry Rub</li> <li>• Smoked Chicken Thighs</li> <li>• Smoked Beef Tri-Tip</li> <li>• Mac &amp; Cheese</li> <li>• Coleslaw</li> <li>• Cornbread</li> </ul>	BLACKBOARD: Chapter 28 Quiz  BLACKBOARD: Chapter 28 Quiz
04/25 – 04/29	14	*** Final Practical Exam ***		
05/02 – 05/10	15	*** Final Written Exam ***		

*Dates are tentative and may be adjusted by the instructor with prior notice to students.*

**Final Exam Schedule:** April 25 – May 01 (Due 05/01, 11:59pm) – Final Practical Exam  
May 02 – May 10 (Due 05/10, 12:00pm) – Final Written Exam

\*\*\* Knife Skills Exams, Final Practical Exam, and Final Written Exam **CANNOT** be made up.

Disclaimer: This schedule is a guide for the semester. The instructor reserves the right to amend the schedule as necessary.

## APPENDIX G: PRE-COURSE SURVEY

### Informed Consent

#### Understanding the Efficacy of Online Postsecondary Culinary Arts Education

You are being asked to participate in a voluntary research study. The purpose of this study is to understand whether or not a culinary arts lab class can be delivered effectively online. Participating in this study will involve regular engagement in a culinary arts class delivered in an online environment, completing weekly modules, practicing hands-on classical cutting, uploading digital pictures of your cutting progress using your cell phone, uploading simple, unedited video of your cutting progress using your cell phone, and participating in a live, face-to-face practical knife skills exam; your participation will last 1 academic semester (16 weeks). Risks related to this research include minor personal injury from your chef knife and consequences of the stress of involvement in higher education; benefits related to this research include establishing a format for the effective delivery of distance and online culinary arts education, increasing options for culinary arts students and opportunities for culinary schools and other culinary arts educational programs. The alternative to participating in this study is to decline participation without consequence.

**Principal Investigator Name and Title:** Mary Kalantzis, Professor

**Department and Institution:** Educational Policy, Organization, and Leadership, UIUC

**Contact Information:** kalantzi@illinois.edu

**Sponsor:** N/A

#### What procedures are involved?

You will be asked to participate in weekly, online modules. Modules include watching short online videos, participating in online discussion and chat groups, uploading documents (module key word definitions), online quizzes, practicing new culinary skills, uploading graphic and video artifacts of personal production, and participation in a single, face-to-face practical exam at the University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute. Each module should take 2-3 hours of active participation, 3-6 hours of passive participation, and include approximately 1 hour of module assessment.

#### Will my study-related information be kept confidential?

Faculty, staff, students, and others with permission or authority to see your study information will maintain its confidentiality to the extent permitted and required by laws and university policies. The names or personal identifiers of participants will not be published or presented.

#### Will I be reimbursed for any expenses or paid for my participation in this research?

You will not be offered payment for being in this study. You will receive academic grade and credit according to your performance in the class, regardless and independent of your participation in the study.

#### Can I withdraw or be removed from the study?

If you decide to participate, you are free to withdraw your consent and discontinue participation at any time. Your participation in this research is voluntary. Your decision whether or not to participate, or to withdraw after beginning participation, will not affect your current or future dealings with the University of Illinois at Urbana-Champaign.

The researchers also have the right to stop your participation in this study without your consent if they believe it is in your best interests, you were to object to any future changes that may be made in the study plan, and/or researchers postpone or end the study.

Will data collected from me be used for any other research?

Your de-identified information could be used for future research without additional informed consent.

**Informed Consent, continued**

**Who should I contact if I have questions?**

**If you have questions about this project, you may contact the Principal Investigator Dr. Mary Kalantzis at 217-300-6992 or [kalantzi@illinois.edu](mailto:kalantzi@illinois.edu) or the Researcher Robert Hall at 501-230-5847 or [rhall@uaptc.edu](mailto:rhall@uaptc.edu). If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects at 217-333-2670 or via email at [irb@illinois.edu](mailto:irb@illinois.edu).**

**I have read and understand the above consent form. I certify that I am 18 years old or older. By clicking the "Submit" button to enter the survey, I indicate my willingness to voluntarily take part in this study.**

**\* 1. Informed Consent**

- ☐ I Accept
- ☐ I Decline

2. What is your preferred course delivery method?

- ☐ Face to Face (*in person*)
- ☐ Hybrid (*in person with some online assignments/activities*)
- ☐ Online (*digital lecture/assignments/activities*)

3. Rate your personal thoughts/feelings about the following:

	Disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Agree
Online learning is convenient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning is harder than face to face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning requires more self-discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning offers more freedom/flexibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning requires the same time commitment as face to face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 4. Personal Preferences

	Not Important	Doesn't Matter	Important
Interaction and engagement with instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interaction and engagement with classmates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-person instruction (in the classroom)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Synchronous, virtual instruction (online, in real time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asynchronous, virtual instruction (online, recorded)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School provided, required lab ingredients/supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal choice obtaining/using ingredients/supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choosing when/where I attend class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a set time/place to attend class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Before taking this course, what was your impression of online learning?

6. After taking this course, what are your impressions of online learning?

7. What were the advantages of this online course?

8. What were the disadvantages of this online course?

9. Technology

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I am comfortable using computers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a computer or have access to one regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to easily access the internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a smart phone and/or tablet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I regularly take care of personal business on my smart phone and/or tablet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently download and install new apps on my smart phone and/or tablet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable using my smart phone for activities beyond making a call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy smart phone/tablet photography	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy smart phone/tablet videography	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to stay current with the latest apps and programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable downloading/installing apps and programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable keyboarding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I am comfortable spending several hours at a time on the computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable using email and web browsers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My technology skills improve in an online course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of technology interferes with my ability to accomplish course requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 10. Comparing Online and Face to Face

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I have the same interaction with classmates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the same interaction with instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the same interaction with my advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive the same quality of instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive the same quality of feedback from my instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive the same frequency of feedback from my instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easier to ask questions online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is harder to ask questions online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can easily comprehend the online course material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face to face makes it easier to communicate with my instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
It is harder to communicate with the instructors in an online course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more satisfied in an online course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This online course meets my learning needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In this online course, the material was presented effectively so that I was able to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What I learned in this online course can be applied to my current or future workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 11. Preparation

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I am self-motivated, a self starter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I need the input and influence of others to motivate me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I need to meet my instructor in person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'd rather stay at home and not drive to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have good reading skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable learning new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy experiencing new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable trying new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. What do you like about online education (select all that apply)

- |   |   |
|---|---|
| <input type="checkbox"/> Convenience                            | <input type="checkbox"/> Flexibility (time, learning, etc.) |
| <input type="checkbox"/> Cost savings (travel, materials, etc.) | <input type="checkbox"/> Learning at my own pace            |
| <input type="checkbox"/> Easier for shy students to participate | <input type="checkbox"/> Fewer distractions                 |

13. What do you dislike about online education (select all that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> Difficult to ask questions/get answers | <input type="checkbox"/> Increased distractions      |
| <input type="checkbox"/> Technical issues                       | <input type="checkbox"/> Less hands on experience    |
| <input type="checkbox"/> Harder to be motivated                 | <input type="checkbox"/> Harder to pay attention     |
| <input type="checkbox"/> Less social interaction                | <input type="checkbox"/> Lack of technical resources |

14. As part of your online studies, when would you use a mobile device (a phone, a tablet, but NOT a laptop or desktop computer)? (select all that apply).

- |  |  |
|--|--|
| <input type="checkbox"/> Checking grades                         | <input type="checkbox"/> Complete digital readings                         |
| <input type="checkbox"/> Checking assignment due dates           | <input type="checkbox"/> Online research                                   |
| <input type="checkbox"/> Checking the course schedule            | <input type="checkbox"/> Completing practice activities                    |
| <input type="checkbox"/> Communicate with the instructor         | <input type="checkbox"/> Participating in online discussions               |
| <input type="checkbox"/> Communicate with classmates             | <input type="checkbox"/> Taking photographs - online lab evidence          |
| <input type="checkbox"/> Watch course videos or other multimedia | <input type="checkbox"/> Shooting video - online lab evidence              |
| <input type="checkbox"/> Listen to course audio                  | <input type="checkbox"/> Editing photos and/or video - online lab evidence |

15. This online course helped me (select all that apply)...

- |  |  |
|--|--|
| <input type="checkbox"/> Analyze information from credible sources (Information Literacy)                                | <input type="checkbox"/> Use quantitative methods to solve problems (Quantitative Reasoning) |
| <input type="checkbox"/> Appropriately apply a variety of technology tools within one's discipline (Technology Literacy) | <input type="checkbox"/> Demonstrate awareness of cultural differences (Cultural Awareness)  |
| <input type="checkbox"/> Communicate effectively with diverse audiences in multiple contexts (Communication)             | <input type="checkbox"/> Demonstrate career readiness skills (Professionalism)               |
| <input type="checkbox"/> Apply critical thinking skills to achieve a desired goal (Critical Thinking)                    |  |

16. What hurdles did you face in this online course?

17. How do you think taking this online course has impacted your learning?

18. What would help improve/enhance your learning in an online course?

19. What advice do you have for an instructor planning to set up an online course?

20. Any other comments regarding your online learning experiences...

21. Gender

- ☐ Male
- ☐ Female
- ☐ I prefer not to answer

22. Age

- ☐ Under 18
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+
- ☐ I prefer not to answer

23. Marital Status

- ☐ Married
- ☐ Single
- ☐ I prefer not to answer

24. Children under 18

- ☐ None
- ☐ One
- ☐ Two
- ☐ Three
- ☐ More than three
- ☐ I prefer not to answer

25. Employment

- ☐ Not employed
- ☐ Part-time
- ☐ Full-time
- ☐ Retired
- ☐ I prefer not to answer

26. Student status

- ☐ Part-time (less than 12 hours per semester)
- ☐ Full-time (12+ hours per semester)
- ☐ I prefer not to answer

27. Annual Income

- |   |   |
|---|---|
| <input type="radio"/> Under \$15,000                | <input type="radio"/> Between \$75,000 and \$99,999   |
| <input type="radio"/> Between \$15,000 and \$29,999 | <input type="radio"/> Between \$100,000 and \$150,000 |
| <input type="radio"/> Between \$30,000 and \$49,999 | <input type="radio"/> Over \$150,000                  |
| <input type="radio"/> Between \$50,000 and \$74,999 | <input type="radio"/> I prefer not to answer          |

28. GPA

- |  |  |
|--|--|
| <input type="radio"/> Between 1.5 and 1.99 | <input type="radio"/> Between 3.0 and 3.49   |
| <input type="radio"/> Between 2.0 and 2.49 | <input type="radio"/> 3.5 and over           |
| <input type="radio"/> Between 2.5 and 2.99 | <input type="radio"/> I prefer not to answer |

29. Major

- ☐ Baking/Pastry Arts
- ☐ Culinary Arts
- ☐ Hospitality
- ☐ I prefer not to answer

30. How often do you check your student email?

- |   |  |
|---|--|
| <input type="radio"/> Several times per day | <input type="radio"/> Weekly                 |
| <input type="radio"/> Daily                 | <input type="radio"/> Rarely                 |
| <input type="radio"/> 4 - 5 times per week  | <input type="radio"/> Never                  |
| <input type="radio"/> 2 -3 times per week   | <input type="radio"/> I prefer not to answer |

## APPENDIX H: POST-COURSE SURVEY

### Informed Consent

#### Understanding the Efficacy of Online Postsecondary Culinary Arts Education

You are being asked to participate in a voluntary research study. The purpose of this study is to understand whether or not a culinary arts lab class can be delivered effectively online. Participating in this study will involve regular engagement in a culinary arts class delivered in an online environment, completing weekly modules, practicing hands-on classical cutting, uploading digital pictures of your cutting progress using your cell phone, uploading simple, unedited video of your cutting progress using your cell phone, and participating in a live, face-to-face practical knife skills exam; your participation will last 1 academic semester (16 weeks). Risks related to this research include minor personal injury from your chef knife and consequences of the stress of involvement in higher education; benefits related to this research include establishing a format for the effective delivery of distance and online culinary arts education, increasing options for culinary arts students and opportunities for culinary schools and other culinary arts educational programs. The alternative to participating in this study is to decline participation without consequence.

Principal Investigator Name and Title: Mary Kalantzis, Professor

Department and Institution: Educational Policy, Organization, and Leadership, UIUC

Contact Information: [kalantzi@illinois.edu](mailto:kalantzi@illinois.edu)

Sponsor: N/A

#### What procedures are involved?

You will be asked to participate in weekly, online modules. Modules include watching short online videos, participating in online discussion and chat groups, uploading documents (module key word definitions), online quizzes, practicing new culinary skills, uploading graphic and video artifacts of personal production, and participation in a single, face-to-face practical exam at the University of Arkansas Pulaski Technical College Culinary Arts and Hospitality Management Institute. Each module should take 2-3 hours of active participation, 3-6 hours of passive participation, and include approximately 1 hour of module assessment.

#### Will my study-related information be kept confidential?

Faculty, staff, students, and others with permission or authority to see your study information will maintain its confidentiality to the extent permitted and required by laws and university policies. The names or personal identifiers of participants will not be published or presented.

#### Will I be reimbursed for any expenses or paid for my participation in this research?

You will not be offered payment for being in this study. You will receive academic grade and credit according to your performance in the class, regardless and independent of your participation in the study.

#### Can I withdraw or be removed from the study?

If you decide to participate, you are free to withdraw your consent and discontinue participation at any time. Your participation in this research is voluntary. Your decision whether or not to participate, or to withdraw after beginning participation, will not affect your current or future dealings with the University of Illinois at Urbana-Champaign.

The researchers also have the right to stop your participation in this study without your consent if they believe it is in your best interests, you were to object to any future changes that may be made in the study plan, and/or researchers postpone or end the study.

Will data collected from me be used for any other research?

Your de-identified information could be used for future research without additional informed consent.

**Informed Consent, continued**

**Who should I contact if I have questions?**

**If you have questions about this project, you may contact the Principal Investigator Dr. Mary Kalantzis at 217-300-6992 or [kalantzi@illinois.edu](mailto:kalantzi@illinois.edu) or the Researcher Robert Hall at 501-230-5847 or [rhall@uaptc.edu](mailto:rhall@uaptc.edu). If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects at 217-333-2670 or via email at [irb@illinois.edu](mailto:irb@illinois.edu).**

**I have read and understand the above consent form. I certify that I am 18 years old or older. By clicking the "Submit" button to enter the survey, I indicate my willingness to voluntarily take part in this study.**

**\* 1. Informed Consent**

☐ I Accept

☐ I Decline

2. What is your preferred course delivery method?

- ☐ Face to Face (*in person*)
- ☐ Hybrid (*in person with some online assignments/activities*)
- ☐ Online (*digital lecture/assignments/activities*)

3. Rate your personal thoughts/feelings about the following:

	Disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Agree
Online learning is convenient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning is harder than face to face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning requires more self-discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning offers more freedom/flexibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning requires the same time commitment as face to face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 4. Personal Preferences

	Not Important	Doesn't Matter	Important
Interaction and engagement with instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interaction and engagement with classmates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-person instruction (in the classroom)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Synchronous, virtual instruction (online, in real time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asynchronous, virtual instruction (online, recorded)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School provided, required lab ingredients/supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal choice obtaining/using ingredients/supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choosing when/where I attend class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a set time/place to attend class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 5. Before taking this course, what is your impression of online learning?

#### 6. Technology

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I am comfortable using computers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a computer or have access to one regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to easily access the internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a smart phone and/or tablet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I regularly take care of personal business on my smart phone and/or tablet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently download and install new apps on my smart phone and/or tablet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable using my smart phone for activities beyond making a call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy smart phone/tablet photography	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy smart phone/tablet videography	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to stay current with the latest apps and programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable downloading/installing apps and programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable keyboarding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable spending several hours at a time on the computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable using email and web browsers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My technology skills improve in an online course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of technology interferes with my ability to accomplish course requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 7. Comparing Online and Face to Face

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I have the same interaction with classmates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the same interaction with instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the same interaction with my advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive the same quality of instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive the same quality of feedback from my instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive the same frequency of feedback from my instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easier to ask questions online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is harder to ask questions online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can easily comprehend the online course material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face to face makes it easier to communicate with my instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is harder to communicate with the instructors in an online course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more satisfied in an online course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This online course will meet my learning needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In this online course, the material will be presented effectively so that I will be able to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What I will learn in this online course can be applied to my current or future workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 8. Preparation

	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
I am self-motivated, a self starter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I need the input and influence of others to motivate me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I need to meet my instructor in person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'd rather stay at home and not drive to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have good reading skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable learning new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy experiencing new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable trying new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 9. What do you like about online education (select all that apply)

- |   |   |
|---|---|
| <input type="checkbox"/> Convenience                            | <input type="checkbox"/> Flexibility (time, learning, etc.) |
| <input type="checkbox"/> Cost savings (travel, materials, etc.) | <input type="checkbox"/> Learning at my own pace            |
| <input type="checkbox"/> Easier for shy students to participate | <input type="checkbox"/> Fewer distractions                 |

## 10. What do you dislike about online education (select all that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> Difficult to ask questions/get answers | <input type="checkbox"/> Increased distractions      |
| <input type="checkbox"/> Technical issues                       | <input type="checkbox"/> Less hands on experience    |
| <input type="checkbox"/> Harder to be motivated                 | <input type="checkbox"/> Harder to pay attention     |
| <input type="checkbox"/> Less social interaction                | <input type="checkbox"/> Lack of technical resources |

11. As part of your online studies, when do you think you will use a mobile device (a phone, a tablet, but NOT a laptop or desktop computer)? (select all that apply)\_

- |  |  |
|--|--|
| <input type="checkbox"/> Checking grades                         | <input type="checkbox"/> Complete digital readings                         |
| <input type="checkbox"/> Checking assignment due dates           | <input type="checkbox"/> Online research                                   |
| <input type="checkbox"/> Checking the course schedule            | <input type="checkbox"/> Completing practice activities                    |
| <input type="checkbox"/> Communicate with the instructor         | <input type="checkbox"/> Participating in online discussions               |
| <input type="checkbox"/> Communicate with classmates             | <input type="checkbox"/> Taking photographs - online lab evidence          |
| <input type="checkbox"/> Watch course videos or other multimedia | <input type="checkbox"/> Shooting video - online lab evidence              |
| <input type="checkbox"/> Listen to course audio                  | <input type="checkbox"/> Editing photos and/or video - online lab evidence |

12. What hurdles do you think you will face in this online course?

13. How do you think taking this online course will impacted your learning?

14. What will help improve/enhance your learning in an online course?

15. What advice do you have for an instructor planning to set up an online course?

16. Any other comments regarding your online learning experiences...

17. Gender

- ☐ Male
- ☐ Female
- ☐ I prefer not to answer

18. Age

- ☐ Under 18
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+
- ☐ I prefer not to answer

19. Marital Status

- ☐ Married
- ☐ Single
- ☐ I prefer not to answer

20. Children under 18

- ☐ None
- ☐ One
- ☐ Two
- ☐ Three
- ☐ More than three
- ☐ I prefer not to answer

21. Employment

- ☐ Not employed
- ☐ Part-time
- ☐ Full-time
- ☐ Retired
- ☐ I prefer not to answer

22. Student status

- ☐ Part-time (less than 12 hours per semester)
- ☐ Full-time (12+ hours per semester)
- ☐ I prefer not to answer

23. Annual Income

- |   |   |
|---|---|
| <input type="radio"/> Under \$15,000                | <input type="radio"/> Between \$75,000 and \$99,999   |
| <input type="radio"/> Between \$15,000 and \$29,999 | <input type="radio"/> Between \$100,000 and \$150,000 |
| <input type="radio"/> Between \$30,000 and \$49,999 | <input type="radio"/> Over \$150,000                  |
| <input type="radio"/> Between \$50,000 and \$74,999 | <input type="radio"/> I prefer not to answer          |

24. GPA

- |  |  |
|--|--|
| <input type="radio"/> Between 1.5 and 1.99 | <input type="radio"/> Between 3.0 and 3.49   |
| <input type="radio"/> Between 2.0 and 2.49 | <input type="radio"/> 3.5 and over           |
| <input type="radio"/> Between 2.5 and 2.99 | <input type="radio"/> I prefer not to answer |

25. Major

- ☐ Baking/Pastry Arts
- ☐ Culinary Arts
- ☐ Hospitality
- ☐ I prefer not to answer

26. How often do you check your student email?

- |   |  |
|---|--|
| <input type="radio"/> Several times per day | <input type="radio"/> Weekly                 |
| <input type="radio"/> Daily                 | <input type="radio"/> Rarely                 |
| <input type="radio"/> 4 - 5 times per week  | <input type="radio"/> Never                  |
| <input type="radio"/> 2 -3 times per week   | <input type="radio"/> I prefer not to answer |

## **APPENDIX I: CUL 1302 FOOD PRODUCTION I AND CUL 1303 FOOD PRODUCTION II LEARNING OBJECTIVES**

### **CUL 1302 Food Production I Learning Objectives**

1. Identify microorganisms, which are related to food spoilage and food-borne illnesses; describe their requirements and methods for growth.
2. Demonstrate acceptable procedures when preparing potentially hazardous foods to include time/temperature principles.
3. Demonstrate good personal hygiene and health habits in a laboratory setting to include hand washing.
4. Outline the requirements for proper receiving and storage of both raw and prepared foods.
5. List the major reasons for and recognize signs of food spoilage and contamination.
6. Identify proper methods of waste disposal and recycling.
7. Demonstrate appropriate emergency policies for kitchen and dining room injuries.
8. Describe appropriate measures for insects, rodents and pest control eradication.
9. Describe appropriate types and use of fire extinguishers used in the foodservice area.
10. Review and apply the laws and rules of the regulatory agencies governing sanitation and safety in a foodservice operation.
11. a. Perform basic math functions to include fractions, weights and measurements.  
b. Demonstrate competency of scaling, measuring, weighing ingredients with a portion scale.
12. Identify tools, small and large equipment used in a professional kitchen and demonstrate proper handling of these items to include safety, sanitation, and storage.
13. Demonstrate proficiency in using knives and small wares to achieve professional quality results when producing classical knife cuts used in various food preparation and cooking.
  - a. Demonstrate use of chef's knife in preparing classical cuts to include julienne, batonnet, French fry, brunoise, small, medium and large dice, paysanne, rondelle, oblique, and tourne'.
  - b. Demonstrate zesting, and segmenting fruit.
  - c. Demonstrate dicing and mincing an onion, garlic and shallots.
  - d. Demonstrate the use of a mandolin using various vegetables.
14. Explain the factors that affect taste, how we perceive those tastes and what we can do to optimize a combination of seasonings and flavors when preparing and cooking food.
15. Define mise en place and demonstrate a combination of organizational skills, preparedness, and timing when it comes to food preparation, cooking and serving.
  - a. Assess these skills through a well-developed rubric
16. Define, and describe the process for all the cooking techniques used in moist, dry and combination cooking methods to include: steam, poach, simmer, boil, deep fry, sauté, pan-fry, grill, roast, poele, stew, and braise.
17. Define, and describe the process for making classical stocks, soups, and mother and compound sauces.

18. Utilize safety and sanitation practices when preparing, cooking and serving all food items in the professional kitchen.
19. Demonstrate the proper process in cooling, storing, labeling and dating, and reheating food utilizing the proper sanitary procedures when working with all food items.
20. Demonstrate how to maximize food freshness, quality, safety and sanitation when serving hot foods and cold foods.
21. Identify tools, equipment and products typically used in Garde Manger with emphasis on proper food handling, including safety, sanitation, and storage.
22. Explain the design principles and layout of a modern buffet, incorporating sanitation and off-premise catering challenges when feeding quantity foods.
23. Cheese:
  - a. Describe, identify, and evaluate the various categories of cheese and include several types and names of cheese associated with each category.
  - b. Identify the largest cheese producing areas of the United States and other parts of the world.
  - c. Describe how best to use various types of cheese and utilize cheese in a recipe.
  - d. Assess and evaluate the quality of items produced.
24. Discuss the flow of goods in a foodservice operation and the role of ordering, receiving and issuing.
25. Discuss and analyze the importance of sanitation and HACCP procedures that affect receiving and issuing of goods in a foodservice operation.
26. Explain and demonstrate the proper receiving and issuing procedures for non-food items such as chemicals in a foodservice operation.
27. Define, describe and explain the importance of a par system when ordering, receiving and storing food and the terms FIFO and LIFO, and how they are used effectively to maintain proper storage procedures.
28. Describe process of management through effective communication skills and interpersonal relationships.
29.
  - a. Identify the difference between a manager and a leader and describe the qualities of each.
  - b. Summarize leadership styles and analyze when each is most appropriate.
30. Describe the supervisor's role in decision-making, problem solving and delegation of duties.
31. Describe the characteristics of a job description and develop a written example with job specifications.
32. Implement a variety of simple sustainable practices in the kitchen that will help to control foodservice costs and displays good environmental stewardship.

## CUL 1303 Food Production II Learning Objectives

1. Identify microorganisms, which are related to food spoilage and food-borne illnesses; describe their requirements and methods for growth.
2. Demonstrate acceptable procedures when preparing potentially hazardous foods to include time/temperature principles.
3. Demonstrate good personal hygiene and health habits in a laboratory setting to include hand washing.
4. Outline the requirements for proper receiving and storage of both raw and prepared foods.
5. List the major reasons for and recognize signs of food spoilage and contamination.
6. Identify proper methods of waste disposal and recycling.
7. Demonstrate appropriate emergency policies for kitchen and dining room injuries.
8. Review and apply the laws and rules of the regulatory agencies governing sanitation and safety in a foodservice operation.
9. a. Evaluate the components and functions of a standardized recipe
  - b. Convert recipes using a yield formula to increase and decrease quantities.
  - c. Cost a recipe giving the overall cost, individual cost and menu sales price.
  - d. Calculate food cost to determine selling price using the factor method and/or percentage method.
  - e. Determine the amounts of product needed in a baking and pastry recipe using the baker's percentage method.
10. Perform costing calculations utilizing current technology.
11. Identify tools, small and large equipment used in a professional kitchen and demonstrate proper handling of these items to include safety, sanitation, and storage.
12. Demonstrate proficiency in using knives and small wares to achieve professional quality results when producing classical knife cuts used in various food preparation and cooking.
  - a. Demonstrate use of chef's knife in preparing classical cuts to include julienne, batonnet, French fry, brunoise, small, medium and large dice, paysanne, rondelle, oblique, and tourne'.
  - b. Demonstrate zesting, and segmenting fruit.
  - c. Demonstrate dicing and mincing an onion, garlic and shallots.
  - d. Demonstrate the use of a mandolin using various vegetables.
13. Identify, describe, and utilize herbs, spices, and seasonings by themselves and in a combination that exemplify national and international cooking medians.
  - a. Prepare an example of a spice rub.
  - b. Prepare an example of a dried and fresh spice blend.
  - c. Utilize a spice blend or herb blend in a culinary preparation.
  - d. Assess student's knowledge in herb and spice identification and usage.
14. Explain the factors that affect taste, how we perceive those tastes and what we can do to optimize a combination of seasonings and flavors when preparing and cooking food.
15. Define mise en place and demonstrate a combination of organizational skills, preparedness, and timing when it comes to food preparation, cooking and serving.

16. Define, and describe the process for all the cooking techniques used in moist, dry and combination cooking methods to include: steam, poach, simmer, boil, deep fry, sauté, pan-fry, grill, roast, poêle, stew, and braise.
17. Prepare and cook a variety of proteins (including beef, chicken, pork, fish, game, lamb and veal), vegetables, legumes, grains, and starches using moist, dry and combination cooking methods.
  - a. Moist heat methods to include steam, deep and shallow poach, simmer and boil.
  - b. Dry heat methods to include deep fry, sauté, pan fry, grill, and roast.
  - c. Combination cooking methods to include poêle, stew and braise.
  - d. Using all moist, dry and combination cooking methods prepare proteins using chicken, 10beef, lamb, veal, fish and wild game.
  - e. Using all moist, dry and combination cooking methods prepare a variety of rice (pilaf method and risotto method), wild rice, jasmine, and sushi.
  - f. Using all moist, dry and combination cooking methods prepare a variety of potato dishes.
  - g. Using all moist, dry and combination cooking methods prepare a variety of vegetables dishes.
  - h. Using all moist, dry and combination cooking methods prepare a variety of grain dishes.
18. Evaluate and analyze the preparation of a variety of proteins (including beef, chicken, pork, fish, game, lamb and veal), vegetables, legumes, grains, and starches using moist, dry and combination cooking methods.
  - a. Moist heat methods to include steam, deep and shallow poach, simmer and boil.
  - b. Dry heat methods to include deep fry, sauté, pan fry, grill, and roast.
  - c. Combination cooking methods to include poêle stew and braise.
19. Define, and describe the process for making classical stocks, soups, and mother and compound sauces.
20. Demonstrate how to prepare and cook classical stocks, soups, and mother and compound sauces.
  - a. Prepare a classical white and dark chicken, beef/veal stock.
  - b. Prepare a classical fish or shellfish stock.
  - c. Prepare a vegetable and or game stock.
  - d. Prepare a clear soup to include a classical consommé.
  - e. Prepare a cream soup using a roux.
  - f. Prepare a puree soup.
  - g. Prepare a specialty soup.
  - h. Prepare each of the five mother sauces to include veloute, espagnole, béchamel, tomato, and butter sauce (to include Hollandaise and beurre blanc).
  - i. One compound sauce from each mother sauce.
21. Evaluate and analyze the preparation of classical stocks, soups, and mother and compound sauces.
22. Utilize safety and sanitation practices when preparing, cooking and serving all food items in the professional kitchen.
23. Demonstrate the proper process in cooling, storing, labeling and dating, and reheating food utilizing the proper sanitary procedures when working with all food items.
24. Define, prepare, cook, evaluate and assess breakfast items:

- a. Prepare, eggs in the following ways: scrambles, over-easy, Sunnyside up, poached, and baked (custard or strata).
  - b. Prepare a French and American style omelet, and an open-faced omelet (frittata).
  - c. Prepare breakfast meats to include ham, sausage and or bacon.
  - d. Prepare a batter and make pancakes, waffles and or crepes.
  - e. Prepare a custard.
  - f. Prepare a breakfast style potato to include one of the following: hash browns, lyonnaise, O'Brien, home fries, potato pancakes.
  - g. Prepare a cereal to include granola, cream of wheat, oatmeal, grits or parfait.
25. Demonstrate how to maximize food freshness, quality, safety and sanitation when serving hot foods and cold foods.
26. In the preparation of food, items demonstrate effective techniques in presenting food that maximizes the flavor and esthetic quality of the products used.
27. Demonstrate proficiency using knives and garnishing tools to achieve professional quality results when producing garnishes for canapés, hors d'oeuvres and buffets to include vegetable, fruit, and other forms of food for decorative and edible purposes.
28. Salads and Dressings:
- a. Identify the basic types of salads and their uses in the modern menu.
  - b. Define basic types of salad dressings and produce a variety of salad dressings including emulsified, dairy based, vinaigrette and coulis.
  - c. Produce mixed green, composed, entree, protein, starch and fruit salad.
  - d. Analyze and evaluate the quality of salads and dressings produced
29. Discuss the flow of goods in a foodservice operation and the role of ordering, receiving and issuing.
30. Describe process of management through effective communication skills and interpersonal relationships.
31. a. Identify the difference between a manager and a leader and describe the qualities of each.
- b. Summarize leadership styles and analyze when each is most appropriate.
32. Describe the supervisor's role in decision-making, problem solving and delegation of duties.

## APPENDIX J: FINAL PRACTICAL EXAM SIGN UP SHEET

### CUL 1302 - Food Production I Doctoral Study - May 3, 1:30pm

You are invited to participate in a knife skills test for a doctoral study, comparing the efficacy of in-person instruction with online instruction. If you volunteer to participate, you are asked to arrive at the culinary school (room #124, Gold Competition Lab) at 1:30pm to receive your station assignment and set up your area. The clock will start promptly at 2:00pm and stop at 3:00pm (1 hour). You will be asked to execute 7 cuts:

- Dice ½ onion
- Rondelle (¼") - carrot
- Lozenge (⅛" thick, 45°) - carrot
- Citrus Supremes - orange
- Batonnet - potato
- Medium dice - potato
- Tourne - potato

There is room for 24 participants, first come first served. For your participation, you will receive 50 extra credit points and will be **Exempt** from the Final Practical Exam. Sign up below:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.

## **CUL 1303 - Food Production II**

### **Doctoral Study - Tuesday, May 3, 10a-1p**

You are invited to participate in a cooking test for a doctoral study, comparing the efficacy of in-person instruction with online instruction. If you volunteer to participate, you are asked to arrive at the culinary school (room #124, Gold Competition Lab) at 10:00am to receive your station assignment and set up your area. The clock will start promptly at 10:30am and stop at 12:30pm (2 hours). You will be asked to execute the following:

- Grill ribeye - medium rare
- Sear beef filet - medium rare
- Poach fish filet
  - You will prepare 1 presentation plate using any one of the three proteins and the following:
- Rice Pilaf
- Vegetable - TBD
- Sauce - your choice
- Include 2 classical knife cuts

There is room for 16 participants, first come first served. For your participation, you will receive 50 extra credit points and will be **Exempt** from the Final Practical Exam. Sign up below:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.

# APPENDIX K: ACF INSPIRED FINAL PRACTICAL EXAM EVALUATOR'S SCORESHEET

## Knife Skills Practical Exam Evaluation Scoresheet

*This exam is part of doctoral research for Chef Robert Hall, WCCMG, CRC, CCA, MEd and is NOT for credit.*

Name: \_\_\_\_\_ ID#: \_\_\_\_\_  
 Location: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Acceptable ☐ Unacceptable

### Domain I - Safety and Sanitation

Group: \_\_\_\_\_

Rating Scale	
Score (compare scores on a scale of 1-10)	
1 - 2.0	Incorrect Cut (not consistent)
2.1 - 3.0	Chopped Stuff/No Uniformity
3.1 - 4.9	Major Deficiencies
5.0 - 7.9	Acceptable/Some Inconsistency
8.0 - 9.4	Professional/Very Consistent
9.5 - 10	Perfect/Machine-like

Domain II - Professionalism - 30%				
WV	Eval #1 Score (1-10)	Eval #2 Score (1-10)	Eval #3 Score (1-10)	Weighted Value (calculated)
Uniform	5			#DIV/0!
Organization	5			#DIV/0!
Mise en place	5			#DIV/0!
Time Management	5			#DIV/0!
Safety	5			#DIV/0!
Sanitation	5			#DIV/0!
Total Points				30.0
Total Scored				#DIV/0!

*COMMENTS (required if score is 7.4 or less)*

Donald III - Craftsmanship Skills - 70%	WV	Eval #1 Score (1-10)	Eval #2 Score (1-10)	Eval #3 Score (1-10)	Weighted Value (calculated)	COMMENTS (required if score is 7, 4 or less)
Dice - Onion (1/2 cup)						
Knife Handling/Technique	3				#DIV/0!	
Uniformity/Consistency	3				#DIV/0!	
Rondelle - Carrot (1/4")						
Knife Handling/Technique	3				#DIV/0!	
Uniformity/Consistency	3				#DIV/0!	
Lozenge - Carrot (1/2", 45° angles)						
Knife Handling/Technique	3				#DIV/0!	
Uniformity/Consistency	3				#DIV/0!	
Citrus Supremes - Orange						
Knife Handling/Technique	3				#DIV/0!	
Uniformity/Consistency	3				#DIV/0!	
Batonnet - Potato						
Knife Handling/Technique	3				#DIV/0!	
Uniformity/Consistency	3				#DIV/0!	
Medium Dice - Potato (1/2 cup)						
Knife Handling/Technique	3				#DIV/0!	
Uniformity/Consistency	3				#DIV/0!	
Turner - Potato (8 pieces)						
Knife Handling/Technique	3				#DIV/0!	
Uniformity/Consistency	3				#DIV/0!	
Possible Points					70.0	
Points Earned					#DIV/0!	

Exam Time 60 Minutes

\*1 point deduction for each excessive minute.

Time Deduction

TOTAL #DIV/0!

Set-up time: \_\_\_\_\_  
 Start time: \_\_\_\_\_  
 Window closed: \_\_\_\_\_

Evaluator: \_\_\_\_\_

# Cooking Skills Practical Exam Evaluation Scoresheet

*This exam is part of doctoral research for Chef Robert Hall, WCMC, CEC, CCA, MEd and is NOT for credit.*

Name: \_\_\_\_\_ ID#: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Acceptable ☐ Unacceptable

## Domain I - Safety and Sanitation

*Comments Required/Unacceptable*

Rating Scale	
1 - 2.0	Score competencies on a scale of 1-10
2.1 - 3.0	Incorrect Cut (but consistent)
3.1 - 4.9	*Chopped Stuff/No Uniformity
5.0 - 7.9	Major Deficiencies
8.0 - 9.4	Acceptable/Some Inconsistency
9.5 - 10	Professional/Very Consistent
	Perfect/Machine like

Domain II - Professionalism - 30%	WV	Eval #1 Score (1-10)	Eval #2 Score (1-10)	Eval #3 Score (1-10)	Weighted Value (calculated)	CYM/MSE/VS (required if score is 7.4 or less)
Uniform	5				#DIV/0!	
Organization	5				#DIV/0!	
Misc cu place	5				#DIV/0!	
Time Management	5				#DIV/0!	
Safety	5				#DIV/0!	
Sanitation	5				#DIV/0!	
Possible Points						30.0
Points Received						#DIV/0!

Domain III - Craftsmanship Skills - 70%				COMBINEDS (expected if score is 7.4 or less)		
WTV	Eval #1 Score (1-10)	Eval #2 Score (1-10)	Eval #3 Score (1-10)	Weighted Value (calculated)		
<b>Grilled Ribeye - medium rare</b>						
Degree of Doneness	2			#DIV/0!		
Flavor	3			#DIV/0!		
Execution of Cooking Method	3			#DIV/0!		
<b>Seared Beef Filet - medium rare</b>						
Degree of Doneness	2			#DIV/0!		
Flavor	3			#DIV/0!		
Execution of Cooking Method	3			#DIV/0!		
<b>Poached Salmon Filet</b>						
Degree of Doneness	2			#DIV/0!		
Flavor	3			#DIV/0!		
Execution of Cooking Method	3			#DIV/0!		
<b>Rice Pilaf</b>						
Doneness	2			#DIV/0!		
Flavor	3			#DIV/0!		
Execution of Cooking Method	3			#DIV/0!		
<b>Sautéed Green Beans</b>						
Doneness	2			#DIV/0!		
Flavor	3			#DIV/0!		
Execution of Cooking Method	3			#DIV/0!		
<b>Sauce</b>						
Properly Accompanies the Plate	3			#DIV/0!		
Proper Doneness	3			#DIV/0!		
Flavor	3			#DIV/0!		
Execution of Cooking Method	3			#DIV/0!		
<b>Final Plate Presentation</b>						
Color Composition	3			#DIV/0!		
Architectural Composition	3			#DIV/0!		
Overall Eye Appeal	4			#DIV/0!		
				Possible Points	70.0	
				Points Received	#DIV/0!	

Exam Time 60 Minutes

\*1 point deduction for each excessive minute.

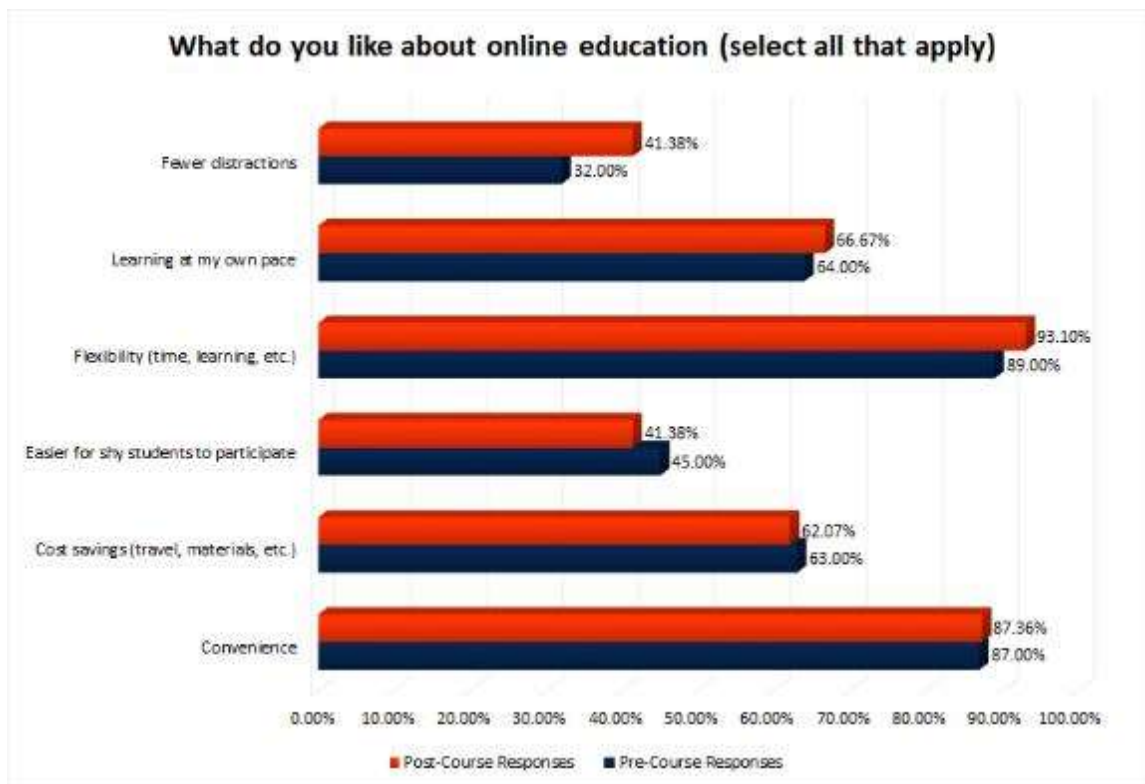
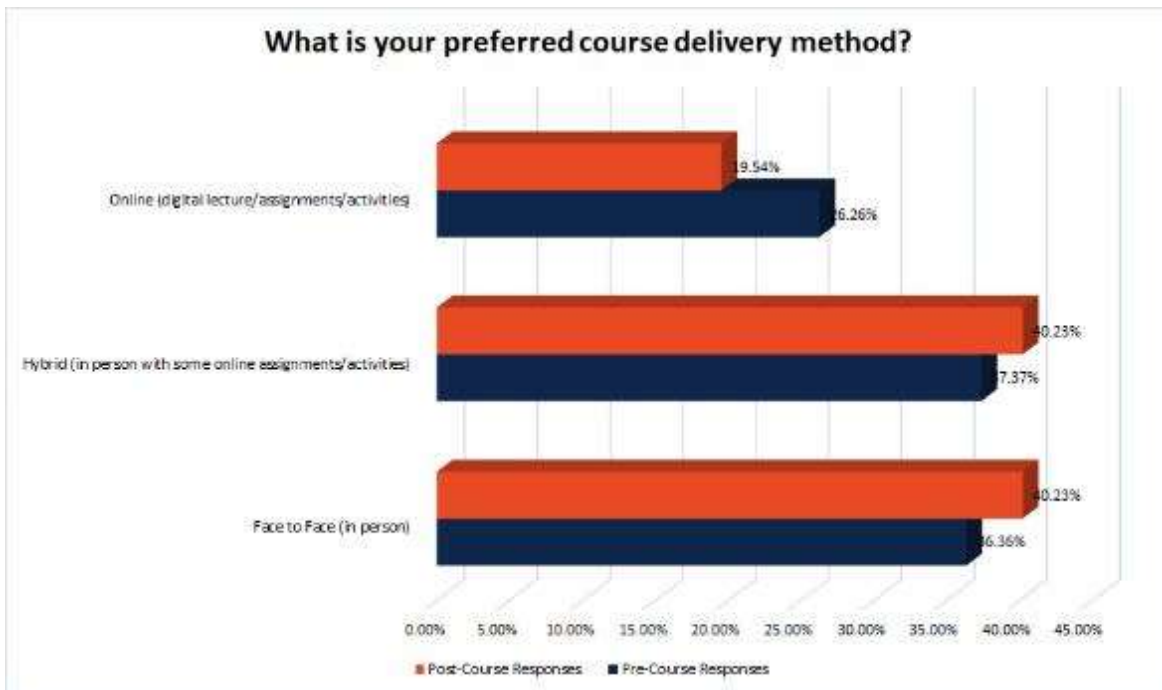
Time Deduction

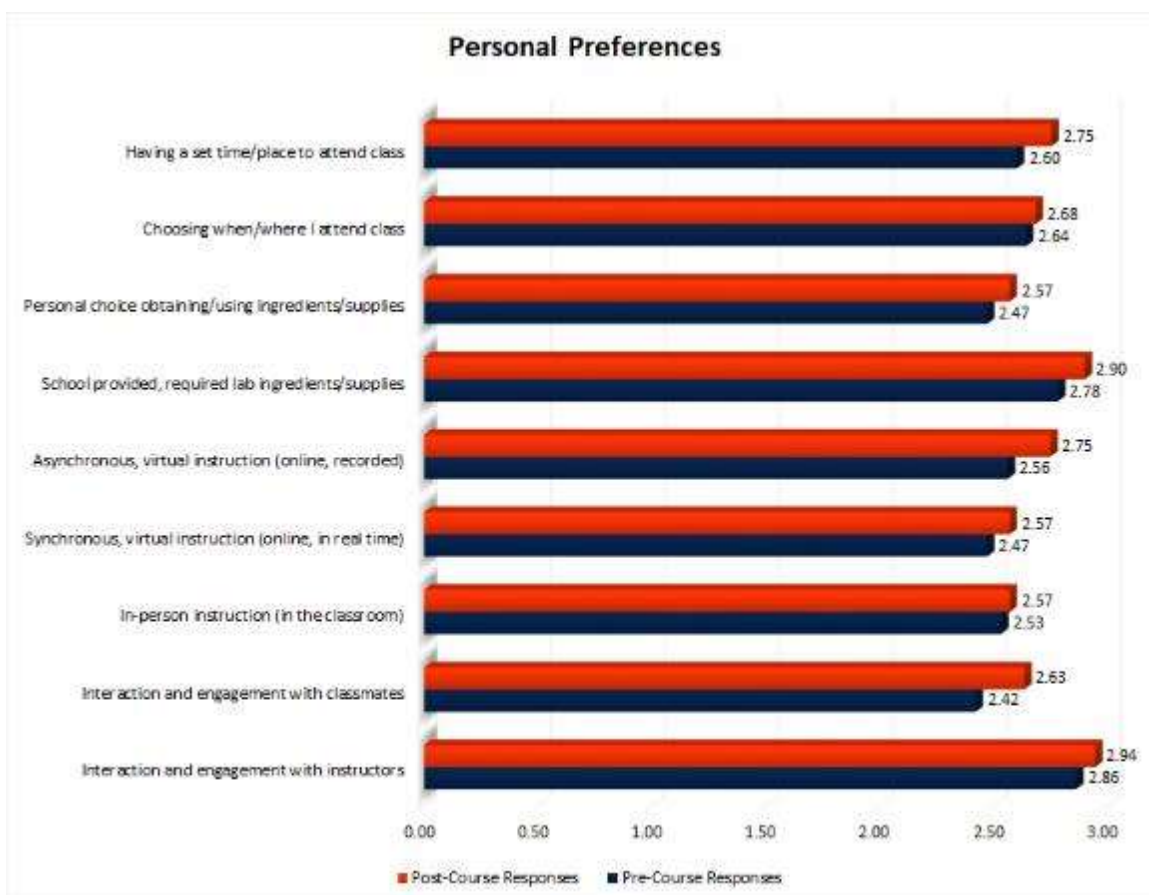
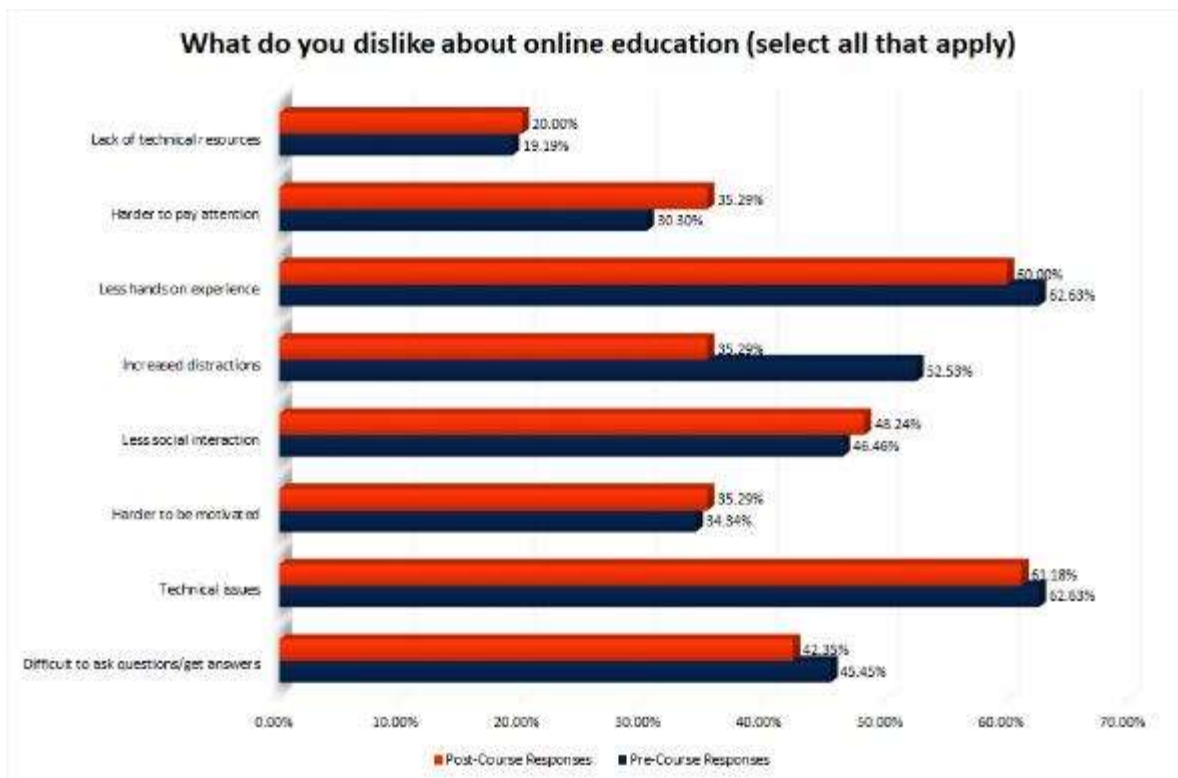
**TOTAL #DIV/0!**

Set-up time: \_\_\_\_\_  
Start time: \_\_\_\_\_  
Window closed: \_\_\_\_\_

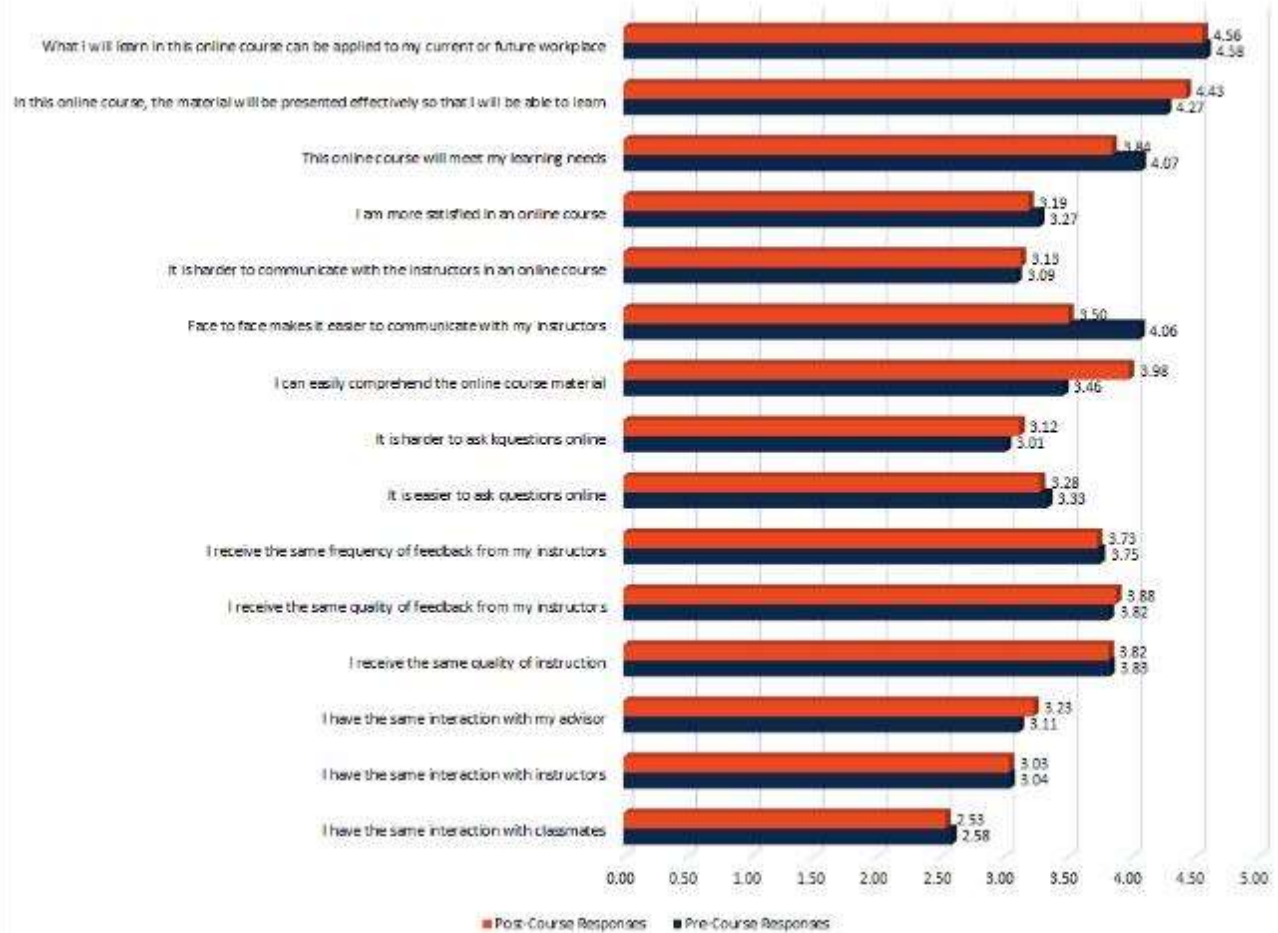
Evaluator: \_\_\_\_\_

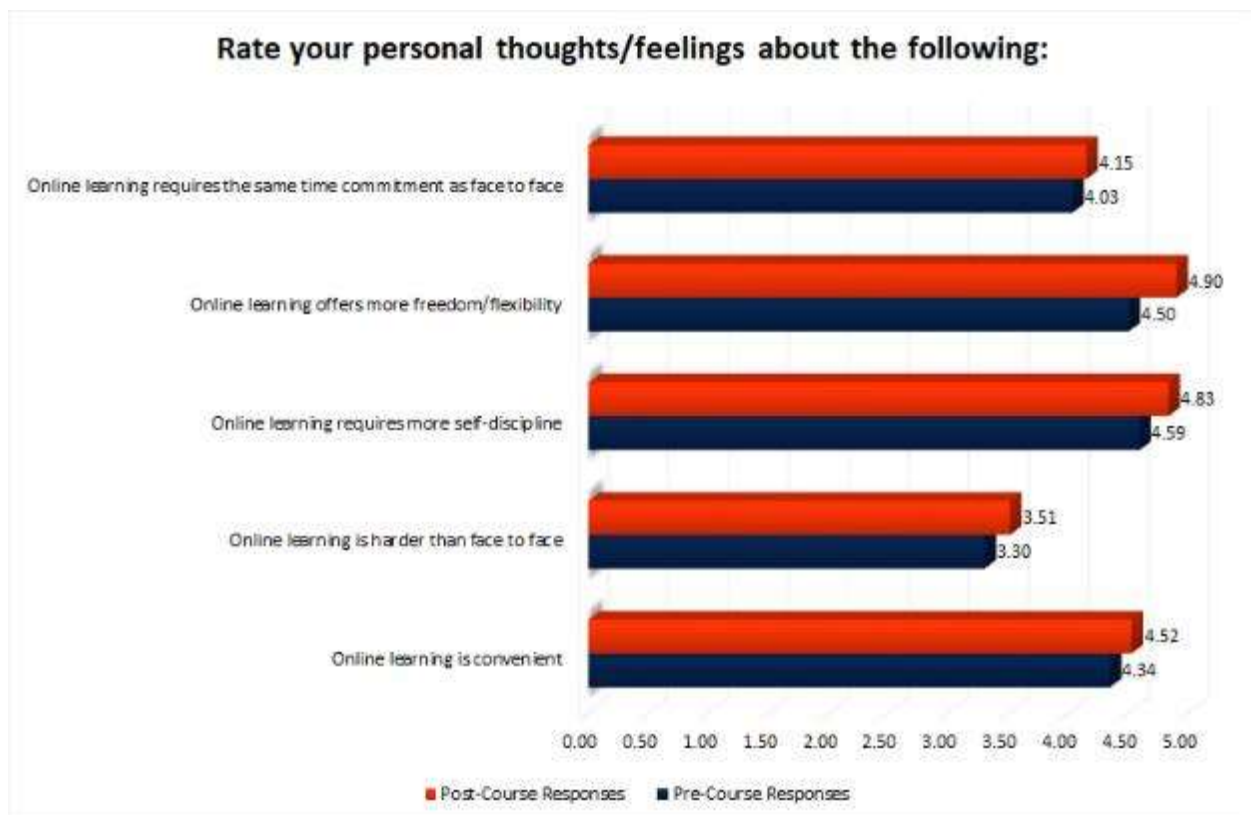
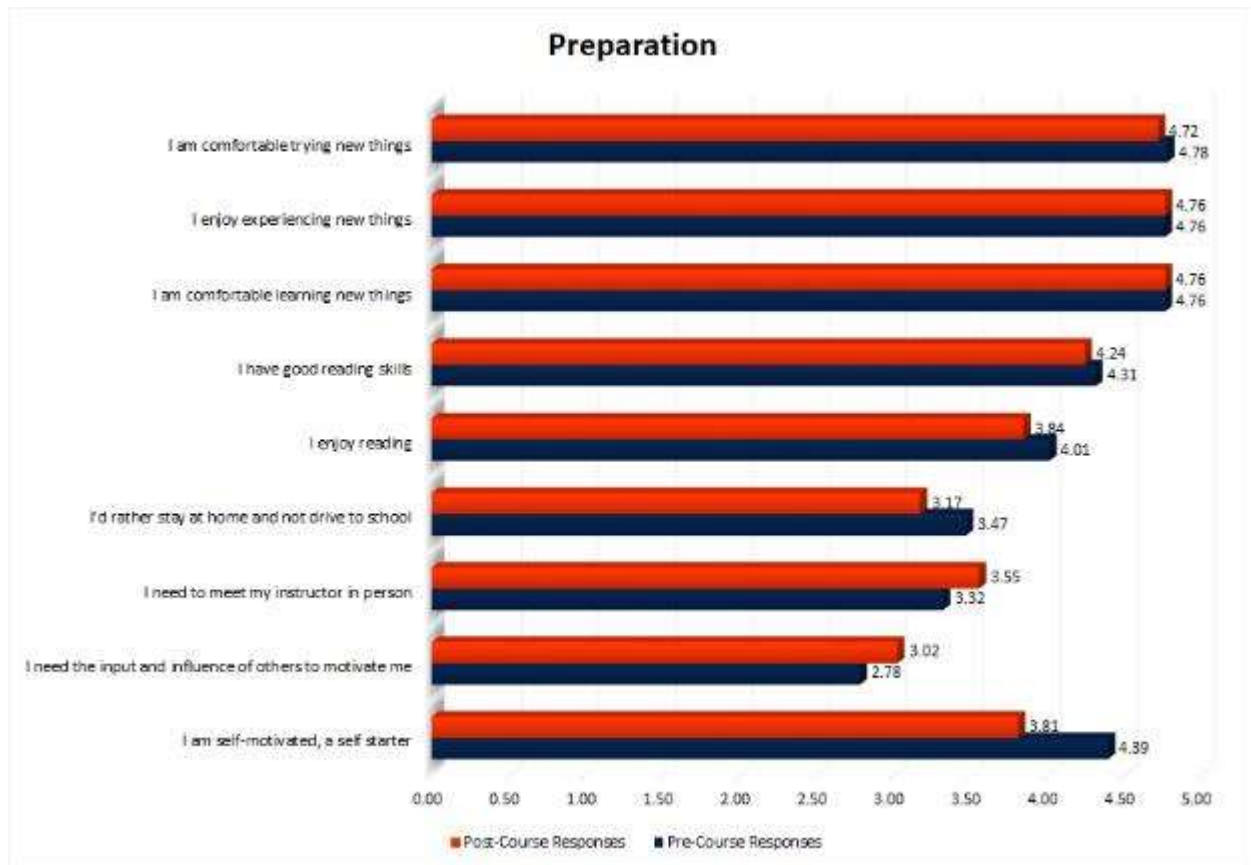
## APPENDIX L: PRE-COURSE AND POST-COURSE SURVEY SUMMARIES

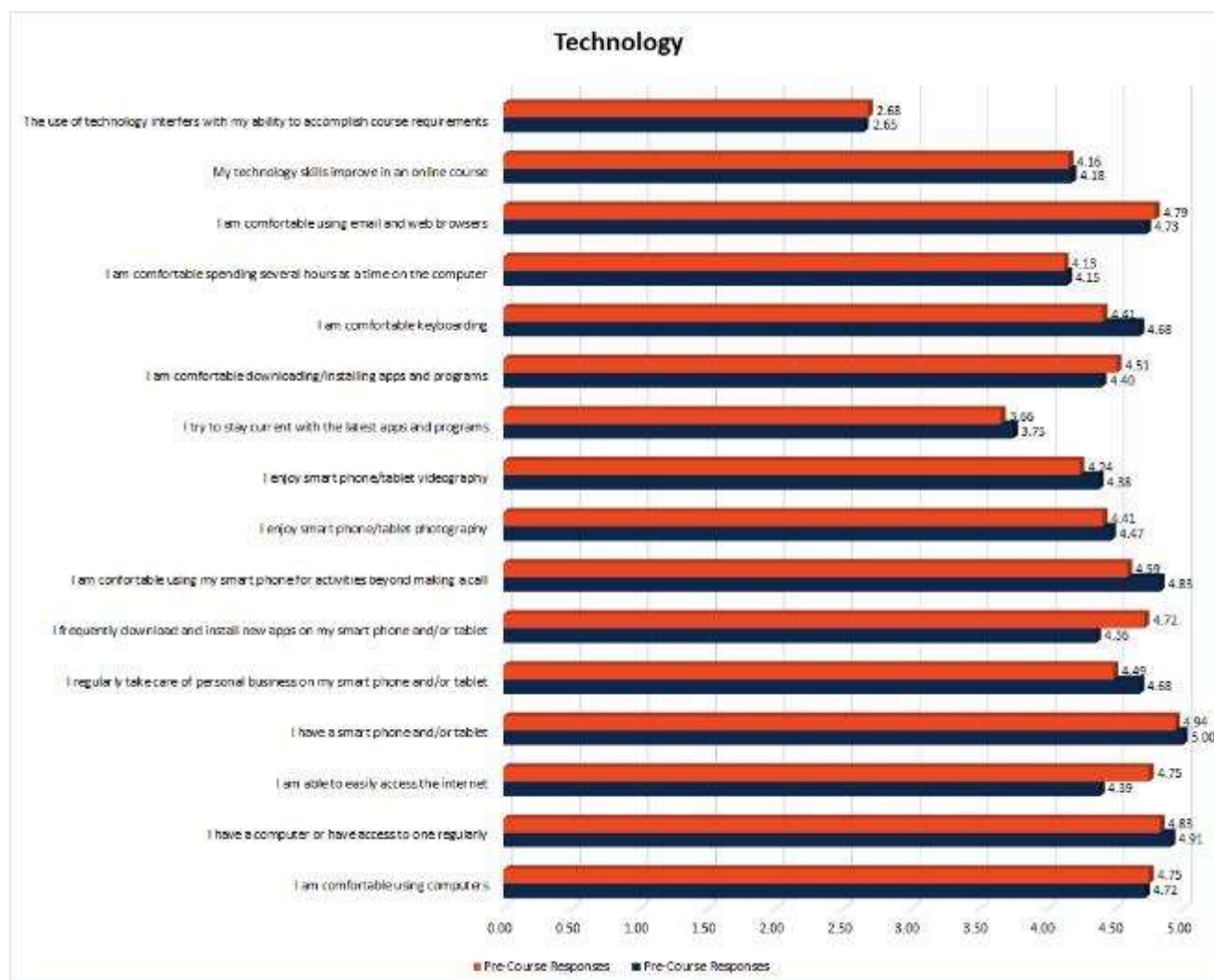




### Comparing Online and Face to Face







Fall 2020 Online Culinary Pre-Course Survey	
<b>Q5. Before taking this course, what is your impression of online learning?</b>	
Aug 31 2020 11:30 AM	I definitely little scared due this will be my first time taking online classes
Aug 30 2020 09:30 PM	its easier for people with social problems go get there education.
Aug 27 2020 07:46 AM	I think its more relaxed and you could log in when you need to and be able to do your stuff at your own pace
Aug 25 2020 09:20 PM	I'm clueless with culinary being online since it is a very hands-on course
Aug 25 2020 08:33 AM	Learning the things I would learn if I was actually sitting in the class
Aug 24 2020 09:38 PM	difficult
Aug 24 2020 08:25 PM	I like online course, I was working two full time jobs and thanks to online course I was able to get my AA in general studies and work towards my Culinary degree
Aug 24 2020 06:43 PM	It can be useful for text/lecture learning. However, with so much of culinary education depending on actual hand-on participation with immediate feedback from an instructor, it is important to provide this.
Aug 24 2020 02:53 PM	Online learning makes it very easy to continue my other responsibilities at home. It takes a lot of self-discipline to take online courses. The only problem I usually have with online classes is needing face-to-face help from my teacher, sometimes I need an answer very soon and they don't always get back to me in time.
Aug 22 2020 10:04 PM	I'm going to look at YouTube videos and then copy the video actions. Will there be videos made by the teacher? Will I be able to ask questions and get answers?
<b>Q12. What hurdles do you think you will face in this online course?</b>	
Aug 31 2020 11:30 AM	Second guessing myself
Aug 30 2020 09:30 PM	time management
Aug 27 2020 07:46 AM	just learning blackboard and using it with everything
Aug 25 2020 09:20 PM	Not being able to show my instructor what issues I'm facing. I'm more hands on and face to face kind of person
Aug 25 2020 08:33 AM	Not being able to get answers from my teacher as fast as I need to
Aug 24 2020 09:38 PM	no hands on
Aug 24 2020 08:25 PM	Finding a work place
Aug 24 2020 06:43 PM	Not having hands-on and face-to-face with the instructor.
Aug 24 2020 02:53 PM	Getting a hold of my teachers and communicating with my classmates.
Aug 22 2020 10:04 PM	None
<b>Q13. How do you think taking this online course will impacted your learning?</b>	
Aug 31 2020 11:30 AM	it going be a little difficulty for me do i like be in class
Aug 30 2020 09:30 PM	I believe it will increase my culinary experience
Aug 27 2020 07:46 AM	I think I will learn the same but the questioning system would be harder and going through online you could lack motivation
Aug 25 2020 09:20 PM	I have no ideal honestly. I do not know what to expect. First time taking hybrid class
Aug 25 2020 08:33 AM	It will make me work harder
Aug 24 2020 09:38 PM	undecided
Aug 24 2020 08:25 PM	It will allow me to keep working with a flexible class schedule
Aug 24 2020 06:43 PM	Not sure yet.
Aug 24 2020 02:53 PM	It will help me improve my self-discipline.
Aug 22 2020 10:04 PM	It might be easier
<b>Q14. What will help improve/enhance your learning in an online course?</b>	
Aug 31 2020 11:30 AM	communication of understanding the material

Aug 30 2020 09:30 PM	Planning ahead to stay on track and taking plenty of notes
Aug 27 2020 07:46 AM	idk
Aug 25 2020 09:20 PM	The availability of my instructor
Aug 25 2020 08:33 AM	Having to figure things out on my own
Aug 24 2020 09:38 PM	zoom
Aug 24 2020 08:25 PM	It will depend on how fast the instructor replies to questions and concerns about assignments
Aug 24 2020 06:43 PM	Not sure yet.
Aug 24 2020 02:53 PM	Being able to get a hold of my teachers when I need them.
Aug 22 2020 10:04 PM	Getting answers to questions
<b>Q15. What advice do you have for an instructor planning to set up an online course?</b>	
Aug 31 2020 11:30 AM	none
Aug 30 2020 09:30 PM	Remember their lives outside of school, some students have families.
Aug 27 2020 07:46 AM	none. its probably harder than I think
Aug 25 2020 09:20 PM	Must explain in depth for better understanding
Aug 25 2020 08:33 AM	Make sure instructions are clear
Aug 24 2020 09:38 PM	unsure
Aug 24 2020 08:25 PM	Place an availability of time where students can receive quick responses to emails that have questions and concerns
Aug 24 2020 06:43 PM	Completely fill out the documentation required for the student to succeed. e.g. Syllabus, Course Schedule. Currently, the documents are form that have not been completed.
Aug 24 2020 02:53 PM	Have a phone number and certain times and days that they will always be available to answer.
Aug 22 2020 10:04 PM	None

Spring 2021 Online Culinary Pre-Course Survey	
<b>Q5. Before taking this course, what is your impression of online learning?</b>	
Aug 23 2021 12:22 PM	It's a decent way of getting information, but I personally learn more from seeing an instructor face to face. If it's purely online, read a book, and answer questions, I could do that on my own without an instructor. It is nice to have discussions that will bring up more information than what is in a textbook, including real-world examples.
Aug 23 2021 11:42 AM	My Impression of online learning is learning everything that you would inside a classroom except in this form you're learning virtually.
Aug 23 2021 06:59 AM	Being a non traditional student, I'm not all that comfortable in an online learning environment. I think technology is emerging and will be the future so while I'm not totally comfortable in this environment, I'm getting out of my comfort zone and learning the competencies necessary to be successful in this environment. I'm also dealing with ill aging parents so having the flexibility of online learning will be helpful in my circumstance.
Jan 24 2021 07:04 AM	I have a graduate degree that was 90% online. Online learning is convenient.
Jan 23 2021 08:05 PM	For typical academic classes, I do not mind them. For skill and technical classes, I prefer in person interaction with the instructor so questions can more easily be addressed.
Jan 23 2021 06:40 PM	A way to go to school and continue daily activities.
Jan 22 2021 01:14 PM	Online learning would be a hassle and harder to keep track of all my subjects.
Jan 22 2021 11:58 AM	I think due to Covid-19 online learning is important
Jan 22 2021 11:24 AM	It is harder than in person learning and can leave you feeling less motivated and more disconnected.
Jan 22 2021 08:47 AM	Going to take more motivation and discipline.

Jan 21 2021 07:41 PM	Preferred methods as I work a fulltime job
Jan 21 2021 02:14 PM	That online learning was easy. But, in fact, it is a little scary at times if I have questions and can't get my answers right away.
Jan 20 2021 07:59 PM	My first impression is the everybody's learning style will have to change.
Jan 20 2021 11:29 AM	I first didn't care but now due this pandemic crisis it benefit now
Jan 19 2021 08:28 PM	I think it's good.
Jan 19 2021 03:03 PM	I love the options to stay safe during this pandemic and the ability to learn in a very comfortable situation. Yes it takes a lot of discipline but I'm ok with that
Jan 19 2021 09:57 AM	That's it's gonna be convenient for me because I have many things to do during the day
Jan 19 2021 08:18 AM	I have utilized online learning for the past year to complete my career goals. I find that it is easier to accomplish my current work schedules ( I have 2 jobs). I usually find time on the weekends to complete all of my homework assignments.
<b>Q12. What hurdles do you think you will face in this online course?</b>	
Aug 23 2021 12:22 PM	The evening time slot is probably the biggest hurdle because that is when we typically do family things. I'm also not a huge fan of videoing myself, but that's not a big deal.
Aug 23 2021 11:42 AM	I think the only hurdle I might meet is having motivation to get everything done in a timely matter
Aug 23 2021 06:59 AM	Technical hurdles that come along with digital media, but I will learn. Also, the lack of face to face might be an issue because I'm not shy when it comes to asking questions if I'm unsure of something.
Jan 24 2021 07:04 AM	Each on line institution has different online teaching technology. Learning to navigate those systems is initially intimidating but once learned no worries.
Jan 23 2021 08:05 PM	Lack of hands on experience
Jan 23 2021 06:40 PM	Staying on task and understanding the material.
Jan 22 2021 01:14 PM	Keeping proper pace and truly absorbing the materiel that is being taught.
Jan 22 2021 11:58 AM	N/A
Jan 22 2021 11:24 AM	Lack of social interaction and distractions at home.
Jan 22 2021 08:47 AM	None that I can think of
Jan 21 2021 07:41 PM	None
Jan 21 2021 02:14 PM	If I get stuck and need to ask a question.
Jan 20 2021 07:59 PM	The contacting of information.
Jan 20 2021 11:29 AM	keeping up
Jan 19 2021 08:28 PM	Just doing hard school work.
Jan 19 2021 03:03 PM	Size of videos to be sent in and proper and pretty plate photos
Jan 19 2021 09:57 AM	technical difficulties
Jan 19 2021 08:18 AM	I feel like the only hurdle I have at this time is my unknown work schedule. It causes me some stress, but I will just have to pencil in my school commitment, just like it part of my work schedule.
<b>Q13. How do you think taking this online course will impacted your learning?</b>	
Aug 23 2021 12:22 PM	I was wanting to take this class in person so I could REALLY see what techniques are going to be used and be able to have good discussions with classmates and the teacher. I will still gain the information needed for the class, but the undocumented learning is what will be missing.
Aug 23 2021 11:42 AM	I believe it'll help me learn more about different ways of cooking and having organization
Aug 23 2021 06:59 AM	It will improve my ability to use video and get me out of my comfort zone. As far as the course material, what I will get out of it will depend on the effort I put into it so the online materials will help me facilitate that.
Jan 24 2021 07:04 AM	Give me new skills.

Jan 23 2021 08:05 PM	This course will only enhance my learning. Product ID is mostly academic, so as long as the course work is complete I will gain knowledge.
Jan 23 2021 06:40 PM	Im hoping to learn more in hospitality and food services.
Jan 22 2021 01:14 PM	It will teach me self discipline.
Jan 22 2021 11:58 AM	N/A
Jan 22 2021 11:24 AM	Undecided.
Jan 22 2021 08:47 AM	None that I can think of
Jan 21 2021 07:41 PM	It will help me progress towards my goal.
Jan 21 2021 02:14 PM	it will help me realize that I can count on myself and to stop doubting my choices.
Jan 20 2021 07:59 PM	I would have to change my style of learning that I usually do.
Jan 20 2021 11:29 AM	not sure
Jan 19 2021 08:28 PM	I'll be good for me and learning new things.
Jan 19 2021 03:03 PM	More cooking skill set tools and improve knife skills
Jan 19 2021 09:57 AM	it will give me more knowlege to use in the long run
Jan 19 2021 08:18 AM	I am very eager to learn how to cook the proper way. I have an idea for a career shift. The idea that I can do this online is very exciting and appealing to me, because I am unsure how I would achieve this goal without this class being online.
<b>Q14. What will help improve/enhance your learning in an online course?</b>	
Aug 23 2021 12:22 PM	I'm not sure at this time.
Aug 23 2021 11:42 AM	Learning to how to get things done in a timely manner
Aug 23 2021 06:59 AM	Since learning will not take place face-to-face, the ability to ask questions and have them answered in a timely manner will enhance my online learning.
Jan 24 2021 07:04 AM	familiarity with the institutional technology.
Jan 23 2021 08:05 PM	Good communication with instructor.
Jan 23 2021 06:40 PM	dedication
Jan 22 2021 01:14 PM	I do not know.
Jan 22 2021 11:58 AM	virtual
Jan 22 2021 11:24 AM	Accountability and ease in submitting assignments
Jan 22 2021 08:47 AM	I tend to watch a lot of videos on cooking techniques, so if the teacher has something that they prefer or like for them to show us that style etc....
Jan 21 2021 07:41 PM	Faster internet speed
Jan 21 2021 02:14 PM	If I have a structure to go by. I know what time everything is due by.
Jan 20 2021 07:59 PM	Motivational teachers.
Jan 20 2021 11:29 AM	not sure yet
Jan 19 2021 08:28 PM	Nothing right now just me to keep up on my work this semester
Jan 19 2021 03:03 PM	Virtual class time
Jan 19 2021 09:57 AM	more explaining when things get complicated
Jan 19 2021 08:18 AM	Staying organized and having a planner filled out.
<b>Q15. What advice do you have for an instructor planning to set up an online course?</b>	
Aug 23 2021 12:22 PM	Try to be as personable as possible...I'm not quite sure how to do that though.
Aug 23 2021 11:42 AM	I don't have any advice
Aug 23 2021 06:59 AM	Make sure the materials are organized and be accessible to students.
Jan 24 2021 07:04 AM	none.
Jan 23 2021 08:05 PM	Be consistent with communication. Make sure examples or videos are easy to understand from an outsider's perspective.
Jan 23 2021 06:40 PM	Consider everything and be diverse.
Jan 22 2021 01:14 PM	More videos does not mean more fun.
Jan 22 2021 11:58 AM	Be attentive
Jan 22 2021 11:24 AM	Unsure

Jan 22 2021 08:47 AM	I feel a weekly zoom for students to talk to their teacher would be a nice idea, like during the time class is supposed to be held so they can reach out to the teacher with questions.
Jan 21 2021 07:41 PM	None
Jan 21 2021 02:14 PM	Add videos don't just have all reading
Jan 20 2021 07:59 PM	Make it still fun to learn.
Jan 20 2021 11:29 AM	nothing
Jan 19 2021 08:28 PM	Nothing just keep doing what you doing
Jan 19 2021 03:03 PM	Don't assume that everyone is computer savvy and be patient with all questions no matter what.
Jan 19 2021 09:57 AM	make sure you talk to your students give them feedback on there work like why they got there grade or how they could have did better
Jan 19 2021 08:18 AM	Be patient with students, and enjoy the process. Everyone learns at their own pace, so some students may find they don't like online classes, and that is okay. I found out early on that I really thrived in a online situation.

Fall 2021 Online Culinary Pre-Course Survey	
Q2. Why are you taking an online culinary or baking course?	
Oct 15 2021 12:14 AM	I am taking this course because it's easier to take my classes this way, instead of going up to school everyday due to my home location.
Oct 10 2021 11:52 PM	To better educate myself in cooking healthy nutritious foods for my family and to open a bakery and restaurant.
Sep 26 2021 11:58 PM	I'm taking a hybrid class because out of the two options offered, online and hybrid, I was more interested in in-person lab learning. Lab learning was available to me through this course, which has some lectures and assignments online. I feel like I learn more effectively in a in-person setting, being able to ask questions as I have them.
Sep 21 2021 03:17 PM	because it was required by the school program
Sep 18 2021 12:49 PM	was wanting to become a baker but then i change my mind and now a dietary manager
Sep 15 2021 11:30 PM	I am taking the online culinary course because of the flexibility and it allows for me to learn at my own pace.
Sep 15 2021 05:46 PM	It was suggested that I take them online
Sep 15 2021 06:27 AM	It was offered to me as a first option
Sep 13 2021 07:01 PM	I'm not
Sep 12 2021 07:42 PM	because I love to cook and I would like to make a career out of it
Sep 05 2021 03:57 PM	To further myself in the cooking industry and make a name of myself one day.
Sep 02 2021 11:06 PM	because I'm interested with it.
Sep 02 2021 11:17 AM	work with my work schedule
Sep 02 2021 08:36 AM	To learn the correct way around the kitchen and business
Sep 01 2021 06:48 PM	I have medical conditions but I do not want them to stop me from pursuing my dreams!
Aug 31 2021 09:36 PM	helps with my work schedule
Aug 29 2021 10:05 PM	I don't have transportation to school
Aug 29 2021 08:06 PM	Because the in person courses were full.
Aug 28 2021 10:00 AM	To work around my busy school and work schedule.
Aug 27 2021 05:09 PM	It's more convenient for my schedule
Aug 26 2021 08:07 PM	I am taking online culinary classes because I enjoy cooking.
Aug 26 2021 07:01 PM	Ive always had a love for cooking and taking this culinary course will allow me to master skills that I need for my future culinary career
Aug 26 2021 06:58 PM	Love to cook and want to someday open my own restaurant
Aug 26 2021 04:57 PM	To further my understanding of the culinary world while also keeping a convenient schedule with work.
Aug 26 2021 03:41 PM	It is easier and works with my schedule

Aug 26 2021 11:54 AM	I have taken a Culinary class and the lady that was helping me setup classes recommended I take this online because I already know some of the content.
Aug 25 2021 07:55 PM	The reason why im taking culinary online is because i wanna finish a legacy that my Mother started and also to show people who they are dealing with
Aug 25 2021 12:25 PM	Convenience; will be out of town during some of the face-to-face class meetings
Aug 24 2021 06:46 PM	I am taking online culinary to gain new or correct skills and knowledge of cooking. I want to broaden my use of spices, seasonings, use of proper equipment and learn ways to create recipes.
Aug 24 2021 06:44 PM	To further my education in learning to cook. I want to have training to use with my medical background to do cooking classes and show you can cook healthy meals to mitigate health issues.
Aug 24 2021 12:07 PM	To complete my degree
Aug 24 2021 07:37 AM	I love to cook and I thought it would be interesting to learn new techniques
Aug 24 2021 07:10 AM	Mainly because of covid, and I work from home. Also my children are in online classes as well.
Aug 24 2021 01:38 AM	covid 19
Aug 24 2021 01:36 AM	schedule would overlap and would not have time for school and work
Aug 23 2021 08:29 PM	I am taking a online culinary course because I want to further my education to enhance my career level.
Aug 23 2021 06:53 PM	In pursuit of Happiness.
Aug 23 2021 05:39 PM	I love cooking, so my goal is to be able to have my own business & do what I love the most and that is to bake, I do also love the fact of being able to make other foods as well.
<b>Q6. Before taking this course, what is your impression of online learning?</b>	
Oct 15 2021 12:14 AM	It's a good way of education especially for the pandemic, also for time management, but it can be hard when you're a freshman, working and going to school and having other responsibilities.
Oct 10 2021 11:52 PM	That it was boring and that I would not learn as well as in person.
Sep 26 2021 11:58 PM	Online learning is more difficult for me. It requires more self-motivation, and if you have a question you either research it independently or have to schedule a time to talk with your professor. I tend to avoid taking online classes if possible.
Sep 21 2021 03:17 PM	its easy so far but sometimes difficult when assignments do not open.
Sep 18 2021 12:49 PM	ugh
Sep 15 2021 11:30 PM	I was worried that I wouldn't master the skills necessary to be successful in this and other courses because I wouldn't have somebody there with me to critique how I was doing.
Sep 15 2021 05:46 PM	Depending on the teacher it can be really nice or really horrible.
Sep 15 2021 06:27 AM	It requires more self discipline because you have to get on no matter what the circumstances are, and last year when i was in high school, it was a lot of technical difficulties
Sep 13 2021 07:01 PM	I think it's great it's a different type of learning
Sep 12 2021 07:42 PM	I'm indifferent towards it, although it does help with my work schedule
Sep 05 2021 03:57 PM	Not my go to for learning as I do not do well when it comes to online.
Sep 02 2021 11:06 PM	my impression isn't really bad. I underestimate at first about online learning. I felt comfortable after using a couple of time.
Sep 02 2021 11:17 AM	convenience
Sep 02 2021 08:36 AM	Online learning is convenient but also sometimes a struggle.
Sep 01 2021 06:48 PM	It is very different but it helps me to be able to pursue my dreams even though I have obstacles
Aug 31 2021 09:36 PM	flexibility
Aug 29 2021 10:05 PM	That's easy and convenient

Aug 29 2021 08:06 PM	I prefer face to face learning as it allows me to ask questions at the very moment I am confused to my instructor and I also learn better that way. n
Aug 28 2021 10:00 AM	When I first started I thought it was going to be hard.
Aug 27 2021 05:09 PM	I am slowly appreciating the option to take classes online.
Aug 26 2021 08:07 PM	Just working online all day
Aug 26 2021 07:01 PM	Im not a fan of online just because im more of a hands on learner.
Aug 26 2021 06:58 PM	i have taken a lot of classes online at my high school before I went to college or even before covid ever existed so it is not too difficult for me
Aug 26 2021 04:57 PM	That it is more convenient than conventional learning but requires more self discipline.
Aug 26 2021 03:41 PM	I enjoy online learning.
Aug 26 2021 11:54 AM	I know for a fact that I am not the best at online learning because I tend to get distracted very quickly so I have to Isolate myself from others and online things ex. Youtube and such.
Aug 25 2021 07:55 PM	My impression of online learning is to learn about different recipes and veggies
Aug 25 2021 12:25 PM	I think it is here to stay and is very important. It takes a lot of discipline on the student's part and more effort on the faculty's part to keep it personal.
Aug 24 2021 06:46 PM	I really don't have much of a opinion, but it is definitely, convenient. Requires discipline.
Aug 24 2021 06:44 PM	I like online learning, and it has been my preferred method for some time.
Aug 24 2021 12:07 PM	I enjoy online learning with the flexibility to earn funds to pay for school at the same time. Since I pay for my own education with no assistance.
Aug 24 2021 07:37 AM	I've taken them before so I was excited to be able to continue taking classes online
Aug 24 2021 07:10 AM	Online learning can be challenging. But its worth it if you apply yourself.
Aug 24 2021 01:38 AM	I enjoy the freedom of time and attire, I feel that I have learned a lot within a safe environment
Aug 24 2021 01:36 AM	Good have not had an issue
Aug 23 2021 08:29 PM	My impression of online learning would be a bit challenging but there's always challenges, that's apart of life.
Aug 23 2021 06:53 PM	it may be challenging.
Aug 23 2021 05:39 PM	Online learning to me is what you would learn while actually being in class.
<b>Q13. What hurdles do you think you will face in this online course?</b>	
Oct 15 2021 12:14 AM	Time management ( juggling work, school, and other responsibilities)
Oct 10 2021 11:52 PM	I do not feel it will be with course work itself. Personally my hurdle is sitting in one place long enough to focus on the computer to get all of my work done.
Sep 26 2021 11:58 PM	The self-motivation and abundance of general distractions may make it hard to keep up with strict weekly deadlines.
Sep 21 2021 03:17 PM	Technical difficulties such as; trying to launch an assignment.
Sep 18 2021 12:49 PM	Just trying to meet deadlines on online work cause i am not on a computer all the time and i have to work like 30 hrs a week
Sep 15 2021 11:30 PM	Spotty internet can be an issue for my location at times.
Sep 15 2021 05:46 PM	Completing the material with unstable internet
Sep 15 2021 06:27 AM	Technical difficulties and lack of good quality
Sep 13 2021 07:01 PM	Not being able to focus
Sep 12 2021 07:42 PM	I think I will run into the problem of not getting distracted
Sep 05 2021 03:57 PM	Lack of motivation to do online work
Sep 02 2021 11:06 PM	the internet problems
Sep 02 2021 11:17 AM	falling behind
Sep 02 2021 08:36 AM	Working and helping my kids while also in completing my own work
Sep 01 2021 06:48 PM	Its hard to make sure everything is turned in blackboard is a little confusing.
Aug 31 2021 09:36 PM	none
Aug 29 2021 10:05 PM	Trying to find time to complete the assignments

Aug 29 2021 08:06 PM	A lot of material to read, too many videos to watch and not having someone there to answer my questions at that moment.
Aug 28 2021 10:00 AM	Sometimes asking questions is hard but sometime instructor's will answer back quickly.
Aug 27 2021 05:09 PM	As always, time management. I need to figure out how to balance home life, school, and work efficiently.
Aug 26 2021 08:07 PM	Internet problems
Aug 26 2021 07:01 PM	distractions
Aug 26 2021 06:58 PM	Trying to make sure that my hands are in the video for examples
Aug 26 2021 04:57 PM	Making myself stay on course and motivated.
Aug 26 2021 03:41 PM	Staying focused
Aug 26 2021 11:54 AM	I think I might face some technical issues more than anything. Internet can be spotty at random times. It isn't a very often occurrence though.
Aug 25 2021 07:55 PM	distractions
Aug 25 2021 12:25 PM	Creating and uploading good videos?
Aug 24 2021 06:46 PM	Kitchen math.
Aug 24 2021 06:44 PM	Working a full-time job with a rotating schedule.
Aug 24 2021 12:07 PM	If any hurdles, maybe combining class with the lab. However I'm looking forward to it. Now I can clean the kitchen at home and put the leftovers away!
Aug 24 2021 07:37 AM	None that I can think of as long as I'm able to log into the site
Aug 24 2021 07:10 AM	I hope none. But there will always be something.
Aug 24 2021 01:38 AM	none really and if I had to pick something it would be dealing with the garbage
Aug 24 2021 01:36 AM	none
Aug 23 2021 08:29 PM	Not having help in a effective time. Maybe slow internet or service issues.
Aug 23 2021 06:53 PM	Managing my time to complete assignments.
Aug 23 2021 05:39 PM	The only hurdle I think I may face is not staying motivated, but I do believe I can manage this the best way I can.
<b>Q14. How do you think taking this online course will impacted your learning?</b>	
Oct 15 2021 12:14 AM	Very well, especially with my instructor.
Oct 10 2021 11:52 PM	there are many helpful videos posted and detailed instruction given with this online course.
Sep 26 2021 11:58 PM	It might take me more time than the average student to get through all of the course materials. Sometimes it's distractions or self-motivation, and sometimes its due to an abundance of course materials or questions requiring independent research. This makes it slightly difficult for me to keep up with strict online deadlines as I have 4 other classes with online learning elements.
Sep 21 2021 03:17 PM	I feel like I will learn a lot if I follow instructions and videos from instructors.
Sep 18 2021 12:49 PM	yes i will learn from it not as much in an actual classroom
Sep 15 2021 11:30 PM	I think that there is more trial by error and since I learn from my mistakes then the flexibility to try something again is there in realtime and may actually help solidify the solutions to the mistakes more real time. There will be more of a time commitment in that regard. The down side is that I won't have in person feedback on the products/assignments that I produce which might be important in the culinary art.
Sep 15 2021 05:46 PM	Positively
Sep 15 2021 06:27 AM	I feel like it will set me behind a little
Sep 13 2021 07:01 PM	Learn something new
Sep 12 2021 07:42 PM	I don't think it will impact it negatively or positively
Sep 05 2021 03:57 PM	Less of a learning experience but more of a self discipline lesson
Sep 02 2021 11:06 PM	depends of what kind of subject, if it's the practical I don't think the online going to be effective.
Sep 02 2021 11:17 AM	self motivation

Sep 02 2021 08:36 AM	I will gain more knowledge
Sep 01 2021 06:48 PM	I think that it will help me physically so I can continue to learn with my disability
Aug 31 2021 09:36 PM	positively
Aug 29 2021 10:05 PM	It will teach me to find ways to stay motivated even though a teacher isn't there to push me.
Aug 29 2021 08:06 PM	I learn best by touching, listening and observing in person in real time.
Aug 28 2021 10:00 AM	I will have to watch videos more to make sure I make the correct cuts.
Aug 27 2021 05:09 PM	I will learn how to properly cut up meats and seafood. I will learn the "good" parts, "better" and "bad" parts to eat.
Aug 26 2021 08:07 PM	I'll learn more about cooking and how to do things right.
Aug 26 2021 07:01 PM	I love culinary so I will pay attention to what needs to be done.
Aug 26 2021 06:58 PM	I do not think it will be any different from other classes
Aug 26 2021 04:57 PM	I believe it will be beneficial and that I will gain knowledge that I can use to further my career.
Aug 26 2021 03:41 PM	I think it will help me learn the information I need to progress forward
Aug 26 2021 11:54 AM	It will be a bit of a learning curve cause I am not the best at online courses so I will have to figure it out as I go.
Aug 25 2021 07:55 PM	It will help me stay focus and listen and also pay really close attention
Aug 25 2021 12:25 PM	I hope to learn as much, if not more, from this online course. I can pause, go back, re-watch material that in a face-to-face environment I may miss.
Aug 24 2021 06:46 PM	It will impact my learning by allowing me to reread or watch and pause, as I take notes.
Aug 24 2021 06:44 PM	Makes me prioritize my time better.
Aug 24 2021 12:07 PM	It just gives me an overview of things to look for and identify from the start of the session.
Aug 24 2021 07:37 AM	Make me more marketable
Aug 24 2021 07:10 AM	It will help add to what I have learned on my own and correct mistakes.
Aug 24 2021 01:38 AM	It gives me an opportunity to continue my curriculum and I can learn and research at my own pace
Aug 24 2021 01:36 AM	have a better understanding of foods
Aug 23 2021 08:29 PM	I will be able to learn more on my own time.
Aug 23 2021 06:53 PM	Having the ability to learn new and modern day materials.
Aug 23 2021 06:53 PM	Helping me to use my time wisely.
Aug 23 2021 05:39 PM	It will impact my learning a lot considering the hands on I'll be doing, and reading I'll be doing.
<b>Q15. What will help improve/enhance your learning in an online course?</b>	
Oct 15 2021 12:14 AM	Being able to get everything done within a 48 hour period.
Oct 10 2021 11:52 PM	making the lessons or course work shorter to help with shortened attention span.
Sep 26 2021 11:58 PM	Having this class be a hybrid, with some in-person labs, is going to be a big assistance to the hurdles I've mentioned previously. Having the ability to do things hands on and ask stuff as we go really helps me not only comprehend the material, but remain motivated as well.
Sep 21 2021 03:17 PM	books and videos
Sep 18 2021 12:49 PM	N/A
Sep 15 2021 11:30 PM	Making sure that feedback that can be given is timely.
Sep 15 2021 05:46 PM	Good instructors
Sep 15 2021 06:27 AM	A few in persons
Sep 13 2021 07:01 PM	Communication with the instructor
Sep 12 2021 07:42 PM	I think being able to take a course from the comfort of my own home will make me more comfortable in this class
Sep 05 2021 03:57 PM	Being in or at campus to do my work
Sep 02 2021 11:06 PM	good material, video, good information from school.

Sep 02 2021 11:17 AM	studying
Sep 02 2021 08:36 AM	More zoom classes with the instructor there to be able to get more live instructions
Sep 01 2021 06:48 PM	extra detail to assignments maybe tutoring
Aug 31 2021 09:36 PM	working at my own pace
Aug 29 2021 10:05 PM	A quiet space where I can do work and listen to music with no distractions
Aug 29 2021 08:06 PM	By reading and watching videos.
Aug 28 2021 10:00 AM	the online videos I can watch.
Aug 27 2021 05:09 PM	I will be able to learn in the comfort of my home without being distracted by others.
Aug 26 2021 08:07 PM	By reading and following directions I will learn more.
Aug 26 2021 07:01 PM	being in a quiet place and having no distractions
Aug 26 2021 04:57 PM	Having constant contact with my instructor and ease of use in the programming.
Aug 26 2021 03:41 PM	n/a
Aug 26 2021 11:54 AM	Being able to clearly communicate with my instructors. I am the type of person who asks a lot of questions so that I don't mess up my assignments.
Aug 25 2021 07:55 PM	staying on task
Aug 25 2021 12:25 PM	Timely feedback.
Aug 24 2021 06:46 PM	Making "Blackboard" more user friendly. It is my second day and I am still trying to navigate it and not miss any assignments by their deadlines.
Aug 24 2021 06:44 PM	Staying current with assignments and other materials.
Aug 24 2021 12:07 PM	Being able to do the labs at home will be fun.
Aug 24 2021 07:37 AM	Nothing everything is fine
Aug 24 2021 07:10 AM	Some class time. I learn faster hands on.
Aug 24 2021 01:38 AM	When taking a test knowing the correct answer to the questions that I miss
Aug 24 2021 01:36 AM	staying on tasks
Aug 23 2021 08:29 PM	I know this maybe hard but instructors answering in a timely manner.
Aug 23 2021 06:53 PM	More time to complete assignments
Aug 23 2021 05:39 PM	I don't think there is anything else that can help improve my learning except just keeping the courses fun & being engaged in them.
<b>Q16. What advice do you have for an instructor planning to set up an online course?</b>	
Oct 15 2021 12:14 AM	To have clear instructions and make them very detailed for us who may have trouble understanding since everything's online
Oct 10 2021 11:52 PM	create a lot of helpful instructional videos and be a quick responder to student messages.
Sep 26 2021 11:58 PM	Consider setting deadlines for grades at midterm and final points in the semester rather than every week. If the course has a lot of reading materials or other resources to get through, it can make it difficult to keep up with weekly deadlines. Even if the student is consistently doing work, they can fall behind and get points taken off for needing to work at their own pace. Which is something I would usually associate with taking an online course. Hybrid classes are understandably a slightly different situation, and weekly deadlines could help a student keep up in in-person labs. Also make sure there's an easy way for students to get ahold their instructor with any questions they might have as they work through the course.
Sep 21 2021 03:17 PM	making sure there is no trouble getting into assignments
Sep 18 2021 12:49 PM	make it more simpler navigation
Sep 15 2021 11:30 PM	Make sure that the materials are organized and not duplicative (i.e several folders with the same information, or two of the same assignments in a file, etc..), and that there is clear expectations, due dates, etc...
Sep 15 2021 05:46 PM	Check your email
Sep 15 2021 06:27 AM	You won't always have control over technical issues, so i don't know how to answer that. But , something else would be to understand that a lot goes on in peoples lives to where they can't get online all of the time, so just be patient and wait until the student emails them and see if they want to get on another class time

Sep 13 2021 07:01 PM	Hope you like it
Sep 12 2021 07:42 PM	Take time to prepare online lectures
Sep 05 2021 03:57 PM	Allow students the opportunity to work from within a work zone with a teacher that is easily contactable
Sep 02 2021 11:06 PM	sometimes the dateline in the blackboard are weird
Sep 02 2021 11:17 AM	traditional students with different learning abilities
Sep 02 2021 08:36 AM	Allow for more real time zooms as a option for live questions and instructions
Sep 01 2021 06:48 PM	Being organized helps alot and makes me beable to make sure im reading and studying the correct things
Aug 31 2021 09:36 PM	relate to students
Aug 29 2021 10:05 PM	To take it a bit slow for the students online
Aug 29 2021 08:06 PM	I believe there is several students that need to listen, touch, smell, and taste which is just something that can't be achieved with an online course, especially in a culinary class.
Aug 28 2021 10:00 AM	Please check your emails.
Aug 27 2021 05:09 PM	Always provide feedback, even if the student is doing well. This allows the student to know where to make improvements on their learning.
Aug 26 2021 08:07 PM	I'll just give them advice on what to teach
Aug 26 2021 07:01 PM	please answer student questions with best ability
Aug 26 2021 06:58 PM	make sure to keep the class active.
Aug 26 2021 04:57 PM	I appreciate them to be quick to respond to questions and accessible in person.
Aug 26 2021 03:41 PM	n/a
Aug 26 2021 11:54 AM	For online students like myself, It would be very helpful for you to be able to communicate with us often. Weekly check ins would benefit me and other students I believe.
Aug 25 2021 07:55 PM	The advice that i will give to my instructor is  1.set up online meetings 2.communicate with your students 3.give assignments/homework 4.Start grading assignments
Aug 25 2021 12:25 PM	It is easy to assign too much "busywork" because of the sense that there is a "gap" to fill by not being in a classroom.
Aug 24 2021 06:46 PM	Have patience.
Aug 24 2021 06:44 PM	Open your material ahead of time and be available via email.
Aug 24 2021 12:07 PM	Just reach out once a month to see if all is well only for student who are not up on the point system and offer extra points through out the semester.
Aug 24 2021 07:37 AM	Be approachable and make sure assignments are clear
Aug 24 2021 07:10 AM	communication and understanding of your students would help a lot for those who struggle with learning like this.
Aug 24 2021 01:38 AM	Only send emails with current due dates, I got 133 emails with due dates for the spring 21 semester
Aug 24 2021 01:36 AM	stay ahead of assignments
Aug 23 2021 08:29 PM	Give it your all, and include everything students need.
Aug 23 2021 06:53 PM	keep it interesting.
Aug 23 2021 05:39 PM	I don't have any advice
<b>Q17. Any other comments regarding your online learning experiences...</b>	
Oct 15 2021 12:14 AM	no
Oct 10 2021 11:52 PM	I have really enjoyed learning from chef Hall. Chef is wise and is willing to share many life and career experience that will help me to make better decisions in my personal life and career.

Sep 26 2021 11:58 PM	In the past online learning has been extremely difficult, if not impossible for me. But these past two semesters have made me appreciate certain aspects of online learning. Things like smaller course fees, being a good way for shy people to adjust to classes, and the flexibility are all good examples.
Sep 21 2021 03:17 PM	no
Sep 18 2021 12:49 PM	no
Sep 15 2021 11:30 PM	The textbook driven courses are more easily taken online. The courses that require more hands-on learning can be more successful if there is some background in the material. There are some courses that I would feel more hesitant to take as an on-line just because the material would be so new that I wouldn't be able to gauge my success without the immediate input from an instructor.
Sep 15 2021 06:27 AM	Not really
Sep 13 2021 07:01 PM	No
Sep 12 2021 07:42 PM	online learning for most courses will benefit most students
Sep 05 2021 03:57 PM	Still not to big of a fan to online learning. Never have been.
Sep 02 2021 11:06 PM	no thank you.
Sep 02 2021 11:17 AM	no
Sep 02 2021 08:36 AM	No
Sep 01 2021 06:48 PM	I am excited to make sure that I can be learning!
Aug 31 2021 09:36 PM	none
Aug 29 2021 10:05 PM	No
Aug 29 2021 08:06 PM	I don't feel I will receive the same experience as I would in a lab.
Aug 28 2021 10:00 AM	none
Aug 27 2021 05:09 PM	I've had instructors in the past in face to face classes that has let it be known they purposefully make their online classes harder because the students are too lazy to come to class. That may be the situation with some students, but there are others who have a busy life, but also want to excel in their education. Instructors with this mentality are wrong.
Aug 26 2021 08:07 PM	No
Aug 26 2021 06:58 PM	None
Aug 26 2021 04:57 PM	First time doing online so excited and nervous!
Aug 26 2021 03:41 PM	n/a
Aug 26 2021 11:54 AM	N/A
Aug 25 2021 07:55 PM	I really do hope i learn alot about online cooking and online learning and also give advice to some instructors if they need my help
Aug 25 2021 12:25 PM	Am looking forward to seeing how a "hands on" class can be taught online.
Aug 24 2021 06:46 PM	Not at this time.
Aug 24 2021 06:44 PM	None at this time
Aug 24 2021 12:07 PM	Allow student to shadow them in there business if they own a business.
Aug 24 2021 07:37 AM	Love online classes
Aug 24 2021 07:10 AM	It can be stressful when it comes to due dates. But also time conscious makes people aware.
Aug 24 2021 01:38 AM	I love it
Aug 24 2021 01:36 AM	no
Aug 23 2021 08:29 PM	No.
Aug 23 2021 06:53 PM	not at this time
Aug 23 2021 05:39 PM	I have no other comments

Spring 2022 Online Culinary Pre-Course Survey	
<b>Q2. Why are you taking an online culinary or baking course?</b>	
Feb 06 2022 11:13 AM	for the convince

Feb 04 2022 07:37 PM	The program I'm enrolled in started a hybrid style curriculum.
Feb 04 2022 05:38 PM	To learn more ideas and techniques to use in my catering business.
Jan 30 2022 08:57 PM	As part of the requirements for my Technical Certificate
Jan 29 2022 02:03 PM	Because I hated the idea of working in a office the rest of my life
Jan 29 2022 11:20 AM	I have a busy work schedule so taking this hybrid of online really helps my course work go smoothly with my work schedule
Jan 27 2022 10:05 AM	1) I want to further my education in the culinary arts.  2) I get high anxiety wearing masks, and the school is still requiring masks on campus. Therefore, I do not want to do any in-person classes at this time. I'm enrolled in this course of study as an enrichment and pleasurable experience, and I don't want it to turn into a negative one.
Jan 25 2022 02:37 PM	Because it is required in my courses,
Jan 24 2022 08:23 PM	To learn skills needed to be successful in the business.
Jan 23 2022 09:44 PM	The pandemic and to cut down on fuel costs.
Jan 23 2022 12:50 PM	To open my on business
Jan 22 2022 09:42 AM	I have always wanted to have my own catering business.
Jan 22 2022 04:11 AM	To pursue my dream in the food industry.
Jan 21 2022 08:19 AM	To acquire the skills and knowledge needed to open my own culinary establishment.
Jan 20 2022 05:27 PM	To enhance my abilities in the kitchen.
Jan 20 2022 11:07 AM	To learn more about my passion.
Jan 19 2022 10:09 PM	I am taking Culinary because cooking is My passion. This is what make me happy
Jan 19 2022 01:27 PM	I want to gain skills to eventually open my own restaurant.
Jan 19 2022 01:20 PM	I am taking baking course in person to better my skills
Jan 19 2022 12:43 PM	To improve my skills in the kitchen.
Jan 18 2022 08:38 AM	I chose culinary courses to learn the ins and outs of a kitchen, and understand the basics of becoming a chef. This course will help start up my future and beginning of my career.
<b>Q6. Before taking this course, what is your impression of online learning?</b>	
Feb 06 2022 11:13 AM	It might be a little more difficult.
Feb 05 2022 07:03 PM	It is hard ,but the measures that are in place helps with learning the tasks
Feb 04 2022 07:37 PM	I viewed it as not as effective as in person learning.
Feb 04 2022 05:38 PM	I've taken online classes before and I have enjoyed them
Jan 30 2022 08:57 PM	I do not like online courses; however, find my professors very helpful and make online more understandable.
Jan 29 2022 02:03 PM	I've taken several online classes. Before this, I got a majority of my business administration bachelor's online. I think online learning is incredible for people who can dedicate time. I don't like leaving my house much and online learning allowed me to be comfortable in my home and learning. I'm a dedicated person so I find classes online much more convenient.
Jan 29 2022 11:20 AM	It is kind of scary to think about because you're essentially your own teacher, with the help of a teacher when you need them. It is hard work.
Jan 27 2022 10:05 AM	Online learning can be beneficial depending on the topic and the student. It depends on how the student learns and what the student wants to get out of the class. I personally do not really care for it for most subject matter, but a student can learn a lot from it if they apply themselves.
Jan 25 2022 02:37 PM	A little hard.
Jan 24 2022 08:23 PM	Need to be disciplined
Jan 23 2022 09:44 PM	The same, it's been a part of my life since high school
Jan 23 2022 12:50 PM	I can do everything on the computer for classes
Jan 22 2022 09:42 AM	Dedication to timeline, discipline, virtual interaction with classmates and professor
Jan 22 2022 04:11 AM	I have never really had a liking for online learning.

Jan 21 2022 08:19 AM	Its very convenient, but requires some technical knowledge that older and less tech savvy students may not comprehend. And it requires students to have a lot self discipline.
Jan 20 2022 05:27 PM	Online courses are easier and more convenient.
Jan 20 2022 11:07 AM	It helps with time management and discipline
Jan 19 2022 10:09 PM	I was thinking a calendar is like teaching yourself you.
Jan 19 2022 01:27 PM	I tend to believe that online learning is less effective than face-to-face.
Jan 19 2022 01:20 PM	online learning is the same as face to face but you are at home doing the assignment
Jan 19 2022 12:43 PM	It is ok to a certain degree. When running into problems face to face is important for a better understanding.
Jan 18 2022 08:38 AM	Online learning is convenient, but requires more time management skills. Though it gives the needed time for assignments and ensures understanding of materials.
<b>Q13. What hurdles do you think you will face in this online course?</b>	
Feb 06 2022 11:13 AM	The only hurdles I have ran into is when my power has been knocked out do to ice storm.
Feb 05 2022 07:03 PM	not been hands on ,with the instructor
Feb 04 2022 07:37 PM	Not having the instructor to review material in person to grasp the full potential of the lesson.
Feb 04 2022 05:38 PM	Identify all the vegetables and fruits
Jan 30 2022 08:57 PM	just feeling that I cannot ask questions as I would face to face
Jan 29 2022 02:03 PM	I mostly think just wifi problems. Arkansas weather is crazy and sometimes the wifi just doesn't work well with the weather.
Jan 29 2022 11:20 AM	Maintaining a schedule to stick to. I need a routine but if I fall out of one because I can say oh well let me do it later I will go down a hole if my routine isn't in place
Jan 27 2022 10:05 AM	The occasional technology glitch
Jan 24 2022 08:23 PM	motivation
Jan 23 2022 09:44 PM	The overload of my schedule
Jan 23 2022 12:50 PM	technical issues
Jan 22 2022 09:42 AM	possible technical issues
Jan 22 2022 04:11 AM	i am definitely going to struggle to keep focus
Jan 21 2022 08:19 AM	Time management and focus
Jan 20 2022 05:27 PM	Having to maintain the flexibility and work around my online schedule.
Jan 20 2022 11:07 AM	Keeping on track with my school, job and helping my kids.
Jan 19 2022 10:09 PM	Trying to keep up with the right lesson plans for the week
Jan 19 2022 01:27 PM	Interacting with the professor.
Jan 19 2022 01:20 PM	holding a knife the right way
Jan 19 2022 12:43 PM	Being confused about technical difficulties and problems.
Jan 18 2022 08:38 AM	Learning time management, finding self motivation and confidence in my work.
<b>Q14. How do you think taking this online course will impact your learning?</b>	
Feb 06 2022 11:13 AM	I can do it during work on my breaks and at lunch.
Feb 05 2022 07:03 PM	it will help me learn how to manever the computer and do assignments
Feb 04 2022 07:37 PM	It won't be as detailed as I would prefer to have in a class.
Feb 04 2022 05:38 PM	Increase my knowledge in making wise purchases for supplies in my catering business
Jan 30 2022 08:57 PM	I am still going to learn
Jan 29 2022 02:03 PM	I'll get to learn in the comfort of my house. I'm shy and find it hard to communicate sometimes to go to regular in-person classes.
Jan 29 2022 11:20 AM	I can listen and read more slowly at my own pace
Jan 27 2022 10:05 AM	I think it will be beneficial in getting me to the next level of cooking.
Jan 25 2022 02:37 PM	None I pray.

Jan 24 2022 08:23 PM	not sure
Jan 23 2022 09:44 PM	I am hoping it will help me with knife skills
Jan 23 2022 12:50 PM	have more time to study and less time driving to school
Jan 22 2022 09:42 AM	It will prepare me for my future career.
Jan 22 2022 04:11 AM	N/A
Jan 21 2022 08:19 AM	I learned some. But in person would have been much better for me.
Jan 20 2022 05:27 PM	It will make learning a little easier having to do it on my own time.
Jan 20 2022 11:07 AM	I will help ne move forward in my learning.
Jan 19 2022 10:09 PM	online is harder for me because I am a hands-on learner
Jan 19 2022 01:27 PM	I don't believe it will.
Jan 19 2022 01:20 PM	I think it will very impact on my learning
Jan 19 2022 12:43 PM	Open doors to new learning experiences.
Jan 18 2022 08:38 AM	Giving a more in depth second chance at learning without having to drive all the way to CAHMI.
<b>Q15. What will help improve/enhance your learning in an online course?</b>	
Feb 06 2022 11:13 AM	Just being able to work at my pace and rereading instructions.
Feb 05 2022 07:03 PM	been able to comprehend the tasks given step by step
Feb 04 2022 07:37 PM	Having the instructor readily available if questions come about.
Feb 04 2022 05:38 PM	Nothing I think everything is explained perfectly in the syllabus
Jan 30 2022 08:57 PM	It is just not my preference
Jan 29 2022 02:03 PM	Just open communication with professors.
Jan 29 2022 11:20 AM	Communication, if I have questions it would be nice to have that extra push and motivation to keep going from my instructor even if I am online
Jan 27 2022 10:05 AM	The smaller class size should help with getting to know classmates better. The larger class felt somewhat isolated. With fewer students we are more free to ask questions that others probably have.
Jan 25 2022 02:37 PM	Time and understanding.
Jan 24 2022 08:23 PM	to stay motivated
Jan 23 2022 09:44 PM	Time
Jan 23 2022 12:50 PM	Being able to study in my own environment
Jan 22 2022 09:42 AM	Professor interaction and instruction.
Jan 22 2022 04:11 AM	In person online classes
Jan 21 2022 08:19 AM	The Blackboard App working better would be nice, as the website is buggy and takes longer to load sometimes. Better computers in the school Technology labs
Jan 20 2022 05:27 PM	Having detailed instructions on an assignment.
Jan 20 2022 11:07 AM	More zoom classes with the other teachers
Jan 19 2022 10:09 PM	Giving me more video and demonstrations
Jan 19 2022 01:27 PM	NA
Jan 19 2022 01:20 PM	asking for help from classmates or instructor
Jan 19 2022 12:43 PM	Researching how to accomplish certain tasks
Jan 18 2022 08:38 AM	Having more time to do assignments and increasing confidence in asking questions when not on campus
<b>Q16. What advice do you have for an instructor planning to set up an online course?</b>	
Feb 06 2022 11:13 AM	Be sure you check emails and communicate with your students when they email and ask question. I have had some instructors that do not respond.
Feb 05 2022 07:03 PM	to make sure to work with the student so he or she can understand the steps
Feb 04 2022 07:37 PM	Be certain that the information to be reviewed by the student is fluid and flows correctly.
Feb 04 2022 05:38 PM	Communication is key
Jan 30 2022 08:57 PM	offer cell phone for texting

Jan 29 2022 02:03 PM	Just be willing to teach
Jan 29 2022 11:20 AM	Keep in touch with your students that are online. I also would suggest lots of tips on the assignments that in person classes would get
Jan 27 2022 10:05 AM	There are 2 types on online courses. One is strictly online without any teacher interaction. This course is different because we are virtually meeting.  1) Be very clear on requirements. 2) Try to make the technology as simple and straightforward as possible. 3) Try to encourage classmates to get to know each other
Jan 25 2022 02:37 PM	allow some lame-man understanding knowing that a lot of the students may or not non traditional
Jan 24 2022 08:23 PM	not sure
Jan 23 2022 09:44 PM	Please answer emails
Jan 23 2022 12:50 PM	place everything in blackboard
Jan 22 2022 09:42 AM	Be patient with students asking questions.
Jan 22 2022 04:11 AM	N/A
Jan 21 2022 08:19 AM	Try to find ways to make the class more social, and connect the students to each other as well. Maybe assigning partners or study mates at the beginning of the semester for those who want one. This would help with social accountability.
Jan 20 2022 05:27 PM	Explain what the assignment is so there aren't many questions or lost people.
Jan 20 2022 11:07 AM	be available for those who need more one on one
Jan 19 2022 01:27 PM	NA
Jan 19 2022 01:20 PM	N/A
Jan 19 2022 12:43 PM	Make the technology part of the course as simple as possible.
Jan 18 2022 08:38 AM	Please make instruction simple and easily understandable, so that student can process and continuously get work done efficiently.

### Fall 2020 Online Culinary Post Course Survey

<b>Q5. Before taking this course, what was your impression of online learning?</b>	
Dec 15 2020 12:18 AM	My impression was a lot more book work less in person interaction
Dec 14 2020 07:58 PM	In the past there was little interaction with instructors. There was a lot of busy work and I learned absolutely nothing. Or retained nothing.
Dec 13 2020 11:53 PM	I preferred online class due to having a full time job.
Dec 13 2020 07:46 PM	Have due dates and zooms
Dec 13 2020 01:58 PM	I didn't really care for online learning.
Dec 13 2020 11:35 AM	Having taken many online courses, mostly for professional certifications and continuing education, lecture and test taking online works well.
Dec 12 2020 09:22 PM	Possibly more difficult, but with the right instructor both in person/virtual can still be accomplished with the same outcome.
Dec 12 2020 12:54 PM	It was a little bit scary and hectic at first but when i got the hang of it, it wasn't that bad.
Dec 12 2020 01:17 AM	I had no clue as far as culinary courses go. I've attended a program once before but everything was in class. Admittedly I underestimated the demand of it, will not happen again.
Dec 12 2020 12:25 AM	I do not like online learning
Dec 11 2020 11:05 PM	I was used to it, ive taken a few before
Dec 11 2020 05:13 PM	My mom got her degree online so I thought it wouldn't be too hard.
Dec 11 2020 03:34 PM	That it wasn't as effective as in person learning.
Dec 11 2020 03:26 PM	I have never enjoyed online learning. Growing up my brain was wired to learn in a classroom so when i was at home or away it was much more difficult to retain and take on new information regarding school

Dec 11 2020 03:18 PM	I was second guessing myself to take this course online but overall I'm glad I didn't change my mind
<b>Q6. After taking this course, what are your impressions of online learning?</b>	
Dec 15 2020 12:18 AM	I love the online videos helps out with seeing things the way it should be done
Dec 14 2020 07:58 PM	My impression has not changed.
Dec 13 2020 11:53 PM	I like online class
Dec 13 2020 07:46 PM	Have work and have to be done before a curtain dates
Dec 13 2020 01:58 PM	I still don't care for online learning. I learn better face to face
Dec 13 2020 11:35 AM	The lectures, quizzes, and tests are suited for online. However, the physical skills and techniques are better suited for in-person teaching.
Dec 12 2020 09:22 PM	It takes a little adjustment but good.
Dec 12 2020 12:54 PM	Although i liked learning online, i much rather be in the presence of the instructor.
Dec 12 2020 01:17 AM	It's just as demanding as in person classes. You must keep up with the same as face to face.
Dec 12 2020 12:25 AM	didn't change
Dec 11 2020 11:05 PM	There are some things that are harder to learn online than in person
Dec 11 2020 05:13 PM	I learned that online is a lot harder than I thought it was going to be.
Dec 11 2020 03:34 PM	That it is sometimes necessary for the school and the students.
Dec 11 2020 03:26 PM	I dislike it even more. The websites are unreliable, i dont get personal contact with my professors
Dec 11 2020 03:18 PM	overall I'm happy I took this cook
<b>Q7. What were the advantages of this online course?</b>	
Dec 15 2020 12:18 AM	Being able to watch videos and go back to the videos as needed
Dec 14 2020 07:58 PM	Homework assignments etc available from my blackboard app when it was working.
Dec 13 2020 11:53 PM	I was able to due the work at my own pace without stressing about when it was due.
Dec 13 2020 07:46 PM	You have more time to do it
Dec 13 2020 01:58 PM	You get to do assignments at anytime.
Dec 13 2020 11:35 AM	Determining the time and place when to consume the material.
Dec 12 2020 09:22 PM	as long as you are willingness to commit to the time and you have an engaging instructor you can actually learn more.
Dec 12 2020 12:54 PM	I got more time to practice and submit the assignments at hand.
Dec 12 2020 01:17 AM	Working at your own pace.
Dec 12 2020 12:25 AM	complete objectives in my own time
Dec 11 2020 11:05 PM	flexibility, ease of use
Dec 11 2020 05:13 PM	Not having to do the long drive and the ease of doing it in my own time.
Dec 11 2020 03:34 PM	Freedom, and i could do things on my time.
Dec 11 2020 03:26 PM	Cheating
Dec 11 2020 03:18 PM	none
<b>Q8. What were the disadvantages of this online course?</b>	
Dec 15 2020 12:18 AM	I don't have any
Dec 14 2020 07:58 PM	I like to hear content in class. I'm an auditory as well as visual learner. I was distracted a lot outside a classroom.
Dec 13 2020 11:53 PM	Technology, if internet was done it would postpone submitting assignments.
Dec 13 2020 07:46 PM	You can't just ask questions you have to email and wait
Dec 13 2020 01:58 PM	Forgetting about your assignments and doing them last minute
Dec 13 2020 11:35 AM	Having to learn knife skills without immediate feedback and correction.
Dec 12 2020 09:22 PM	none that I can think of.
Dec 12 2020 12:54 PM	Not having the Chef there to critique my work when i needed it most.

Dec 12 2020 01:17 AM	Working at your pace...
Dec 12 2020 12:25 AM	no face to face interaction
Dec 11 2020 11:05 PM	it can be easy to forget or procrastinate
Dec 11 2020 05:13 PM	Procrastinating!
Dec 11 2020 03:34 PM	A lot of distractions.
Dec 11 2020 03:26 PM	No learning whatsoever
Dec 11 2020 03:18 PM	none
<b>Q16. What hurdles did you face in this online course?</b>	
Dec 15 2020 12:18 AM	none
Dec 14 2020 07:58 PM	Distractions.
Dec 13 2020 11:53 PM	Finding time to make it to school to pickup products for lab
Dec 13 2020 07:46 PM	Technical problems
Dec 13 2020 01:58 PM	Getting my assignments in on time
Dec 13 2020 11:35 AM	Not having immediate feedback on knife skills.
Dec 12 2020 09:22 PM	None
Dec 12 2020 12:54 PM	Not having proper face to face interaction with my chef to ask certain questions that i needed answered right away as if we were in a classroom setting.
Dec 12 2020 01:17 AM	Technical issues. Various folders within folders I had to search through. I'm thankful for learning the embedding process for videos though honestly. I just feel that face to face would have better suited me. I'm just a hands on type, receiving handouts and such. Can keep up with things better, dinosaur mind has gotta catch up.
Dec 12 2020 12:25 AM	Video taping myself
Dec 11 2020 11:05 PM	Its easy to forget you have work and its easy to get distracted at home
Dec 11 2020 05:13 PM	Lack of motivation.
Dec 11 2020 03:34 PM	Not as much motivation and trying to pay attention was harder
Dec 11 2020 03:26 PM	Paying attention and actually learning
Dec 11 2020 03:18 PM	none
<b>Q17. How do you think taking this online course has impacted your learning?</b>	
Dec 15 2020 12:18 AM	Impacted my learning a lot and learning different skills in everyday cooking
Dec 14 2020 07:58 PM	It was helpful.
Dec 13 2020 11:53 PM	It has made it easier to learn and progress my college courses
Dec 13 2020 07:46 PM	Made me be more self discipline
Dec 13 2020 01:58 PM	It has made me struggle more than usual
Dec 13 2020 11:35 AM	I'm not where I should be with my skills and techniques.
Dec 12 2020 09:22 PM	same as being in person
Dec 12 2020 12:54 PM	I have learned a new way to learn without being in front of a bunch of physical materials.
Dec 12 2020 01:17 AM	Improved it. And has inspired me. I'm not totally closed minded to online courses haha
Dec 12 2020 12:25 AM	i will try not to take another one
Dec 11 2020 11:05 PM	I dont know that it has
Dec 11 2020 05:13 PM	It has helped me to see what I need to do for the rest of my degree.
Dec 11 2020 03:34 PM	Not in bad way and not in a good way so neutral.
Dec 11 2020 03:26 PM	Didn't learn a thing
Dec 11 2020 03:18 PM	help some kind of way a little
<b>Q18. What would help improve/enhance your learning in an online course?</b>	
Dec 15 2020 12:18 AM	better pictures
Dec 14 2020 07:58 PM	If online only live lecture.

Dec 13 2020 11:53 PM	Faster responses from instructors.
Dec 13 2020 07:46 PM	Less technical issues
Dec 13 2020 01:58 PM	Having more in person classes
Dec 13 2020 11:35 AM	Hybrid, online for lecture, quizzes, and tests. In-person for techniques and skills.
Dec 12 2020 09:22 PM	none
Dec 12 2020 12:54 PM	Online Zoom calls where instructors can help me with what ever assignment I am working on.
Dec 12 2020 01:17 AM	Once I have all my resources, I believe I'd be better suited for online classes. Working mostly from my phone is difficult for me.
Dec 12 2020 12:25 AM	zoom, hands on direction
Dec 11 2020 11:05 PM	more alerts when stuff is due and better layouts
Dec 11 2020 05:13 PM	I would prefer a hybrid at least so that I had more motivation.
Dec 11 2020 03:34 PM	Less distractions and just more interaction with people.
Dec 11 2020 03:26 PM	Get rid of online learning
Dec 11 2020 03:18 PM	less technical issue

#### Q19. What advice do you have for an instructor planning to set up an online course?

Dec 15 2020 12:18 AM	Make sure an photos are easy to see
Dec 14 2020 07:58 PM	Be clear about due dates. Use online face to face videos. Do not allow students to leave all assignments til end of semester.
Dec 13 2020 11:53 PM	Make sure you have all material available for students that are available for in class students.
Dec 13 2020 07:46 PM	Don't wait on the date to come to start working on the a assignment
Dec 13 2020 01:58 PM	Making lecture videos ahead of time
Dec 13 2020 11:35 AM	Consider what portion of the course is best in-person.
Dec 12 2020 09:22 PM	Be engaging, be on top of responding to students either in email or text if they have questions. Some students learn at different paces so be flexible.
Dec 12 2020 12:54 PM	Please make sure the online course has enough information for the student to complete it from beginning to end without the constant confusion and headache of not being able to complete it without asking the instructor for help every other day.
Dec 12 2020 01:17 AM	None that I can think of.
Dec 12 2020 12:25 AM	I think it is a great tool for some people, but not myself
Dec 11 2020 11:05 PM	make it as user friendly as possible yet simple
Dec 11 2020 05:13 PM	More communication to motivate students.
Dec 11 2020 03:34 PM	Make it feel like people are meeting and make i feel like a classroom.
Dec 11 2020 03:26 PM	If necessary have a zoom meeting with everyone following your lead
Dec 11 2020 03:18 PM	none

#### Spring 2021 Online Culinary Post Course Survey

May 10 2021 10:21 PM	That i can do it with a flexible schedule
May 09 2021 05:47 PM	Ive taken one online culinary course and multiple others for business. I'm not a fan....at all. I even prefer doing homework assignments on paper and turning them in weekly. Easier to keep up with than everything being digital. But i'm progressing with the times.
May 09 2021 03:11 PM	Like a hybrid class but it all is on the computer and dont like it
May 09 2021 02:18 PM	Very suitable to some and not so much to others. I think it works best when little or no interactions with other students and the faculty member are required or valuable.
May 09 2021 05:38 AM	Good
May 08 2021 07:28 PM	I liked it

May 08 2021 08:53 AM	not preferred
May 07 2021 04:50 PM	Great in my opinion
May 07 2021 01:48 AM	Time management would be a crucial factor and providing time to be productive
May 07 2021 12:37 AM	i didnt know what to expected
May 06 2021 02:46 PM	I Would need to be very proficient in computer skills in order to be successful
May 05 2021 09:28 PM	More convenient for me
May 04 2021 07:55 PM	n/a
May 04 2021 03:41 PM	Online learning would be easy since I could do it at anytime of the day.
May 04 2021 02:21 PM	I had experience with online learning, it is helpful and challenging at the same time
May 04 2021 12:07 PM	That it would be harder than I thought.
May 04 2021 08:00 AM	Seems like a great idea to me, less contact with others safer at home and won't be at risk of getting COVID.
May 03 2021 04:17 PM	Must be good at technology
May 03 2021 09:50 AM	at first I was nerves because I'm taking it online and I don't have all equipment but it all good because taught me techniques if you didn't have something but give secondary option to do
May 03 2021 07:50 AM	It would be more work on my end and practice, culinary needs to be practiced daily.
May 03 2021 01:31 AM	I thought it was something that was considered to be a last resort or something that was only done for specific purposes.
May 03 2021 12:47 AM	My impression was that we would actually meet on a zoom/video call at least once or twice a week
May 02 2021 08:52 PM	I think that it's good for people who don't want to get the virusus or for people just wants to help by staying home and do online because it can help from the virusus not to be spreaded more.
May 02 2021 06:15 PM	I thought online learning would be pretty easy and convenient.
<b>Q6. After taking this course, what are your impressions of online learning?</b>	
May 10 2021 10:21 PM	That he should have given online students a choice to do the lab work at the school
May 09 2021 05:47 PM	I'm neutral. I prefer in person but it helps others.
May 09 2021 03:11 PM	I dont like it
May 09 2021 02:18 PM	N/A
May 09 2021 05:38 AM	They are good
May 08 2021 07:28 PM	Will continue taking online courses
May 08 2021 08:53 AM	same
May 07 2021 04:50 PM	Great
May 07 2021 01:48 AM	I love it
May 06 2021 02:46 PM	I need to have better time maangmwnt skills to sucessful in online learning .
May 05 2021 09:28 PM	I love doing the labs in person and the assignments online
May 04 2021 07:55 PM	really like it
May 04 2021 03:41 PM	I learned I still need to have a set time and place to do online work.
May 04 2021 02:21 PM	challenging
May 04 2021 12:07 PM	It is not as hard as I imagined it would be.
May 04 2021 08:00 AM	It's just as important as face to face learning you just have to be more discipline towards yourself
May 03 2021 04:17 PM	I love it! I like the freedom it provides

May 03 2021 09:50 AM	I love it to the fullness
May 03 2021 07:50 AM	I enjoy online learning, while working a job and do my homework on my time.
May 03 2021 01:31 AM	They honestly haven't changed.
May 03 2021 12:47 AM	I took online last semester and dropped out because of the difficulties I was having. The in class experiences was much better. I will say its okay for people who aren't hands-on people and people who like to ask question and get prompt understanding right then and there
May 02 2021 08:52 PM	i actually liked this course the work was'nt to diffucult and the professor was good with the explaining things and grading the work
May 02 2021 06:15 PM	I feel it was very difficult and at times overwhelming. It does take a lot of discipline and time management. Also, when learning technique, I feel person to person instruction is necessary
<b>Q7. What were the advantages of this online course?</b>	
May 10 2021 10:21 PM	That i was able to complete work on the time when i was available
May 09 2021 05:47 PM	working at your own pace, kinda.
May 09 2021 03:11 PM	you got to have everything already in a bag and ready for you to pick so you can do it all at home
May 09 2021 02:18 PM	Flexibility
May 09 2021 05:38 AM	Oh yes
May 08 2021 07:28 PM	Was able to work at my own pace and not miss work.
May 08 2021 08:53 AM	less commitment
May 07 2021 04:50 PM	Time Flexibility
May 07 2021 01:48 AM	safety and social distancing during this pandemic and doing certain steps of preparation during my time
May 06 2021 02:46 PM	Being able to work at your pace.
May 05 2021 09:28 PM	working by my own pace
May 04 2021 07:55 PM	i can do class whenever i have time; i can practice again and again and post my best work
May 04 2021 03:41 PM	The option to not come to class.
May 04 2021 02:21 PM	Being able to watch the videos over and over again
May 04 2021 12:07 PM	being able to see the labs on knife skills before we saw them in person.
May 04 2021 08:00 AM	More time turning your work in homework's online, less time being at the school.
May 03 2021 04:17 PM	Being able to do your work when you can.
May 03 2021 09:50 AM	none
May 03 2021 07:50 AM	Doing the work on my time so i can also have a job.
May 03 2021 01:31 AM	I too the only person version of the class.
May 03 2021 12:47 AM	Its flexible
May 02 2021 08:52 PM	ONe is that you can do it earily and can you have a lottle bit more time in completing your work.
May 02 2021 06:15 PM	Flexibility is the largest advantage.
<b>Q8. What were the disadvantages of this online course?</b>	

May 10 2021 10:21 PM	Not having the instructor step you through cooking the recipes so you can learn from your mistakes and do better
May 09 2021 05:47 PM	Sitting behind a computer screen more than i'd like. not directly interacting with instructors or fellow students.
May 09 2021 03:11 PM	having to take a picture or video of everything just to turn in for the class
May 09 2021 02:18 PM	Lack of physical instruction.
May 09 2021 05:38 AM	Yeah
May 08 2021 07:28 PM	Not able to ask instructor specific details about assignment in the moment.
May 08 2021 08:53 AM	structure and hands on with instructor
May 07 2021 04:50 PM	Self discipline
May 07 2021 01:48 AM	obtaining the correct answer for questions I missed
May 06 2021 02:46 PM	Not having access to the instructor when a you have a question at that time of doing your assignment.
May 05 2021 09:28 PM	I have none
May 04 2021 07:55 PM	none
May 04 2021 03:41 PM	It takes more time out of my day.
May 04 2021 02:21 PM	not having the set time to work
May 04 2021 12:07 PM	The workload was heavy but I also work a full-time job and was just having issues getting organized.
May 04 2021 08:00 AM	Having to go to school while pandemic is happening, not being able to do half of my work
May 03 2021 04:17 PM	No critiques in real time.
May 03 2021 09:50 AM	none
May 03 2021 07:50 AM	Online you have to be self motivated, and engaged.
May 03 2021 01:31 AM	I took the in person version of the class.
May 03 2021 12:47 AM	No real experience with the instructor, difficulties understanding where, how your doing something wrong without the one on one experience. Things I learned in this semester proper way of why my cuts were slanted and how to properly hold a knife, understanding only came because I was in class. Online critique wouldn't have grasp the technique because the instructor could guide my hand and reangle me to the correct position. T
May 02 2021 08:52 PM	not to many but one is that we could'nt meet everybody face to face and have interactions with everbody in our class.
May 02 2021 06:15 PM	Very little communication with instructors. It's mostly via email.
<b>Q16. What hurdles did you face in this online course?</b>	
May 10 2021 10:21 PM	Plate présentation and cooking the recipes
May 09 2021 05:47 PM	I took food 2 in person
May 09 2021 03:11 PM	trying to get to the computer to do my work before someone else uses the computer
May 09 2021 02:18 PM	None
May 09 2021 05:38 AM	No
May 08 2021 07:28 PM	None
May 08 2021 08:53 AM	none
May 07 2021 04:50 PM	Typing essays on new topics

May 07 2021 01:48 AM	none really I enjoyed my class
May 07 2021 12:37 AM	na
May 06 2021 02:46 PM	Time managment
May 05 2021 09:28 PM	none
May 04 2021 07:55 PM	none
May 04 2021 03:41 PM	Staying motivated
May 04 2021 02:21 PM	distractions, family and friends, "Its online you can do it later", Technology rarely likes me
May 04 2021 12:07 PM	Trying to submit some of my work. But I had help and was able to submit.
May 04 2021 08:00 AM	Having to wear a mask in a very hot facility, not being with others
May 03 2021 04:17 PM	My own technology issues. I'm not the greatest with cameras or videos.
May 03 2021 09:50 AM	life
May 03 2021 07:50 AM	not really a hurdle, but equipment for different methods of cooking. was given alternatives
May 03 2021 01:31 AM	Meeting deadlines
May 03 2021 12:47 AM	Technology
May 02 2021 08:52 PM	Just getting my work in on time that's it
May 02 2021 06:15 PM	My hurdles were time management, personal distractions and sometimes struggling to focus. There were also times when I struggled to understand the technique being taught.
<b>Q17. How do you think taking this online course has impacted your learning?</b>	
May 10 2021 10:21 PM	Not much
May 09 2021 05:47 PM	i took food 2 in person
May 09 2021 03:11 PM	i have to be in a face to face class because i learn more in a class that is face to face
May 09 2021 02:18 PM	Neutral
May 09 2021 05:38 AM	Yes
May 08 2021 07:28 PM	It helped further it.
May 08 2021 08:53 AM	not as much hands on
May 07 2021 04:50 PM	Improved
May 07 2021 01:48 AM	lots of information and terms that I did not know nor have I even heard of and I have been able to learn at my pace
May 06 2021 02:46 PM	Helped me to become aware of my time managment
May 05 2021 09:28 PM	Impacted by watching all the different chefs tell their stories and being able to get a better understanding of this industry
May 04 2021 07:55 PM	practice for assignments/posts improved skills
May 04 2021 03:41 PM	I learned to bake better
May 04 2021 02:21 PM	undecided at this time
May 04 2021 12:07 PM	I am really enjoyed learning from the yes chef videos
May 04 2021 08:00 AM	It's helped me become better at what I do so that I can apply that to the real world.
May 03 2021 04:17 PM	Make me more responsible

May 03 2021 09:50 AM	made a huge impact on my learning
May 03 2021 07:50 AM	It has further increased my knowledge on cooking styles.
May 03 2021 01:31 AM	It has equipped me to be versatile and the adapt to any change in learning styles.
May 03 2021 12:47 AM	It impacted my ability to be less motivated for the course because I had so many difficulties with class assignments(Technology wise)
May 02 2021 08:52 PM	it really didn't effect it that much
May 02 2021 06:15 PM	It has helped me learn my strengths and weaknesses. It has also taught me that I may have to go a bit further to learn and understand the things being taught.
<b>Q18. What would help improve/enhance your learning in an online course?</b>	
May 09 2021 05:47 PM	I took food 2 in person
May 09 2021 03:11 PM	that teachers would respond faster to emails instead of waiting a day or two days just to answer
May 09 2021 02:18 PM	Feedback is always good.
May 09 2021 05:38 AM	Sometimes
May 08 2021 07:28 PM	Faster response to question or a live forum
May 08 2021 08:53 AM	nothing
May 07 2021 04:50 PM	More information
May 07 2021 01:48 AM	A virtual cooking class twice a month
May 06 2021 02:46 PM	Staying focus and not putting myself to overload myself.
May 05 2021 09:28 PM	more videos
May 04 2021 07:55 PM	more access to my instructor
May 04 2021 03:41 PM	Keeping my motivation
May 04 2021 02:21 PM	unknown
May 04 2021 12:07 PM	Just making a schedule and keeping to it.
May 04 2021 08:00 AM	Nothing
May 03 2021 04:17 PM	More times to pick up materials. I work all day
May 03 2021 09:50 AM	stay focus
May 03 2021 07:50 AM	maybe more hands on plate presentation.
May 03 2021 01:31 AM	Having less of a work load and more consideration of other assignments
May 03 2021 12:47 AM	Those classes that educate you about the tools needed for online classes. I think the 1st week should be introducing students into technology and preparing them for the different types of technology that they'll be using for that class
May 02 2021 08:52 PM	everything was fine with it but just the work thing not getting turned in on time.
May 02 2021 06:15 PM	I believe having a hybrid class would help much better.
<b>Q19. What advice do you have for an instructor planning to set up an online course?</b>	
May 10 2021 10:21 PM	Make sure they communicate with students and try to give the student a choice to do lab at the school instead of home
May 09 2021 05:47 PM	Be as open minded about the online course as you expect your incoming students to be.
May 09 2021 03:11 PM	respond faster to your students

May 09 2021 02:18 PM	It is easier to overload students with assignments and other work compared with face to face.
May 09 2021 05:38 AM	Yes
May 08 2021 07:28 PM	None
May 08 2021 08:53 AM	none
May 07 2021 04:50 PM	Move slow
May 07 2021 01:48 AM	consider virtual classed every now and again
May 06 2021 02:46 PM	Students need a little more time to adjust to online learning.
May 05 2021 09:28 PM	don't forget you have online students sometimes it's hard getting answers to questions
May 04 2021 07:55 PM	offer more office hours, opportunities to ask questions, get answers faster, maybe live practice sessions to get immediate feedback about technique
May 04 2021 03:41 PM	Be able to except late work
May 04 2021 02:21 PM	always have a set class time and a periodical check in time
May 04 2021 12:07 PM	Be sure to connect with your students. I had some instructors that never would communicate with me if I needed help.
May 04 2021 08:00 AM	Be fun, creative, be very u formative to your students
May 03 2021 04:17 PM	Record videos and have a weekly discussion time. That helps!
May 03 2021 09:50 AM	nothing
May 03 2021 07:50 AM	Everyone is at a different learning skill, so being able to balance that and be able to respond to questions as soon as possible.
May 03 2021 01:31 AM	Be patient and open to students' requirements and needs
May 03 2021 12:47 AM	Educated the importance of having a computer that are compatible to the school network & educating them on software that will be used in the class(Zoom, importing vids..etc)
May 02 2021 08:52 PM	none
May 02 2021 06:15 PM	Make the class hybrid. I believe doing this will give the online students focus on the techniques being taught and also the instructor will be able to see and correct students as they do with the in person students

### Fall 2021 Online Culinary Post Course Survey

<b>Q2. What did you like about this online culinary or baking course?</b>	
Dec 14 2021 05:54 PM	learning different cuts of meat
Dec 12 2021 11:48 PM	How easy it was to follow everything that was going on
Dec 12 2021 09:02 PM	I like the convenience of being able to stay home & being able to move at my own pace. I definitely liked that we met virtually weekly and even did some of the work together as a group.
Dec 12 2021 08:46 PM	It was easy to follow and outlined in blackboard by week. Expectations were clear
Dec 07 2021 02:53 PM	I did not take the online course, but the portion that I had online was fairly simple, but also prompted me to learn which I liked
Dec 07 2021 02:52 PM	The learning behind it
Dec 06 2021 12:31 PM	I loved that we got to do stuff in class during class time but had simple assignments at home too. This gave us enough time to do what we needed to in class but also time for stuff at home.
Dec 06 2021 10:30 AM	I like the zoom meetings
Dec 05 2021 09:53 PM	I like picking up the product and watching videos of how to cut different vegetables
Dec 05 2021 06:07 PM	I like being able to go to school and still be able to work a full time job.

Dec 05 2021 11:03 AM	I learned a lot More than a lot of my classes
Dec 02 2021 09:18 PM	I can do it whenever I wanted before the deadline
Dec 01 2021 09:38 AM	I learned the most in this class A lot of stuff that I'm not familiar with like cooking with meat and all the different knife cuts
Nov 30 2021 08:23 PM	I like how we where able to make many many different dishes.
Nov 28 2021 12:56 PM	Convenience
Nov 22 2021 12:10 PM	What I liked about the online course I took is the flexibility and the option to go back and click a button to hear a lecture again. My teacher was punctual in answering questions on email.
Nov 20 2021 08:54 AM	I loved that I had someone to correct me while doing the work. It was like being in the room while on camera.
Nov 18 2021 02:14 PM	The experience of fabricating different type of meats and seafoods I otherwise would not have an opportunity to learn.
Nov 17 2021 11:17 AM	i get to take classes online
Nov 16 2021 11:54 AM	I liked that even with my health conditions I was able to attend school and learn about something I am very passionate about
Nov 16 2021 08:06 AM	I work a rotating schedule that doesn't allow me to attend regular classes.
Nov 15 2021 09:18 PM	I loved the opportunity to learn at home where I feel safe during this pandemic and can stay on track to complete my degree. I learned a lot about meat and seafood and the Zoom classes were so informative and made things more understandable.
Nov 15 2021 11:25 AM	The diversity and things I learned about cooking.
<b>Q3. What did you dislike about this online culinary or baking course?</b>	
Dec 14 2021 05:54 PM	not having more time concerning cutting meats that are not teachable just with a week worth of assignments.
Dec 12 2021 11:48 PM	Attempting to get ingredients for labs and getting help with things I didn't fully understand
Dec 12 2021 09:02 PM	I didn't like killing the lobster, otherwise, the course itself was great!
Dec 12 2021 08:46 PM	nothing
Dec 07 2021 02:53 PM	I just dislike online courses in general so I can't exactly say much about it.
Dec 07 2021 02:52 PM	That is not self-paced
Dec 06 2021 12:31 PM	Trying to understand blackboard.
Dec 06 2021 10:30 AM	I felt like the students should have an option to do lab at school dealing with delicate food such as seafood
Dec 05 2021 09:53 PM	I wish I could have watched how to do certain things in person.
Dec 05 2021 06:07 PM	There is nothing that I didn't like.
Dec 05 2021 11:03 AM	It sometimes went over and it wasn't a signed cleaning job
Dec 02 2021 09:18 PM	I don't really know the technic that I am doing is right or not.
Dec 01 2021 09:38 AM	No assigned cleaning jobs it went over time sometimes
Nov 30 2021 08:23 PM	I disliked we couldn't just ask any type of questions
Nov 28 2021 12:56 PM	nothing
Nov 22 2021 12:10 PM	I disliked nothing about my online course.
Nov 20 2021 08:54 AM	We don't cook as much together
Nov 18 2021 02:14 PM	The scary lobster (humanly killing)
Nov 17 2021 11:17 AM	na
Nov 16 2021 11:54 AM	Not much the only thing that confused me was the black board and the way it is set up!
Nov 16 2021 08:06 AM	Nothing
Nov 15 2021 09:18 PM	No dislikes, I'm telling you I loved this class. Short of delivering the food items to my house, I have no complaints.
Nov 15 2021 11:25 AM	The kitchen Math
<b>Q7. Before taking this course, what was your impression of online learning?</b>	

Dec 14 2021 05:54 PM	late night early mornings
Dec 12 2021 11:48 PM	helpful for the current world status but difficult for people with a neurodivergent
Dec 12 2021 09:02 PM	Over time, I have slowly started to like online learning
Dec 12 2021 08:46 PM	It was difficult
Dec 07 2021 02:53 PM	That it is harder to connect with instructors
Dec 07 2021 02:52 PM	I really did not know in the beginning that it was online learning and just going for the lab, but I can see where the online can be easier on the Chef's
Dec 06 2021 12:31 PM	I thought it would be easy. But the internet can be tricky and blackboard can be complicated.
Dec 06 2021 10:30 AM	That I will get the same knowledge and practice skills as I was in person
Dec 05 2021 09:53 PM	I liked doing things online, so I didn't think I'd have any trouble with it
Dec 05 2021 06:07 PM	I thought it would be difficult but it was easier than I expected especially with Zoom meeting.
Dec 05 2021 11:03 AM	It's more convenient on your time
Dec 02 2021 09:18 PM	It is going to be hard and complicated, since I am in major that more practical then theoretical
Dec 01 2021 09:38 AM	More disciplined Learning at your own pace and time
Nov 30 2021 08:23 PM	I was thinking we would be doing most book work and hands on when we got to food 2. But i really like how we had the chance to do other things.
Nov 28 2021 12:56 PM	easier
Nov 22 2021 12:10 PM	I had taken two online course and I enjoyed it very much so!
Nov 20 2021 08:54 AM	Very good
Nov 18 2021 02:14 PM	I've taken online course before so it met my expectations.
Nov 17 2021 11:17 AM	i really like it
Nov 16 2021 11:54 AM	I had done it when I was sick before but the way things are set up on black board for pulaski tech is a bit confusing
Nov 16 2021 08:06 AM	I've always liked online classes. I worked throughout college and it helped to get me more hours.
Nov 15 2021 09:18 PM	I have always thought that it was going to be harder to learn and not have access to the instructor as well as needing to have higher computer skills to make online classes work.
Nov 15 2021 11:25 AM	Very good
<b>Q8. After taking this course, what are your impressions of online learning?</b>	
Dec 14 2021 05:54 PM	late nights early mornings
Dec 12 2021 11:48 PM	Helpful for covid, not very good for adhd/autism when you have a hard time concentrating
Dec 12 2021 09:02 PM	Online learning is great!
Dec 12 2021 08:46 PM	This professor made it enjoyable
Dec 07 2021 02:53 PM	About the same as before
Dec 07 2021 02:52 PM	I still do not like it
Dec 06 2021 12:31 PM	Its very self disciplined and takes a lot of motivation.
Dec 06 2021 10:30 AM	I liked it better than my online course last year
Dec 05 2021 09:53 PM	I still like it. I just hate that sometimes with the connection being at home it makes it harder.
Dec 05 2021 06:07 PM	online learning is easier than I thought.
Dec 05 2021 11:03 AM	It requires a lot of discipline
Dec 02 2021 09:18 PM	It isn't very hard, but some of the courses would be effective in offline classes
Dec 01 2021 09:38 AM	It will teach you to be more disciplined And you'll probably be better trying to get it perfect and having no class mates to compare it too
Nov 30 2021 08:23 PM	Somewhat great.
Nov 28 2021 12:56 PM	have to be disciplined

Nov 22 2021 12:10 PM	I would like to see more courses offered online in the future
Nov 20 2021 08:54 AM	Still very good
Nov 18 2021 02:14 PM	I love it very interactive
Nov 17 2021 11:17 AM	the classes were good
Nov 16 2021 11:54 AM	I like it!
Nov 16 2021 08:06 AM	I love it! I like having a week to complete assignments.
Nov 15 2021 09:18 PM	There is nothing that I have to complete in my curriculum that I can't do at home. Pretty confident that I can do baking, soup stocks and sauces at home too.
Nov 15 2021 11:25 AM	Very good
<b>Q9. What were the advantages of this online course?</b>	
Dec 14 2021 05:54 PM	not feeling rushed to complete assignments
Dec 12 2021 11:48 PM	Not having to do EVERYTHING real time
Dec 12 2021 09:02 PM	You can move at your own pace, complete assignments on your time (as long as it's before the due date), flexible, virtual meetings allow us to ask questions in real time without having to wait for an email, recorded sessions can be watched later
Dec 12 2021 08:46 PM	flexibility
Dec 07 2021 02:53 PM	That you can have more time to finish something if needed
Dec 07 2021 02:52 PM	That I can always just go back and review things that more likely if it was on paper it probably would have gotten thrown away
Dec 06 2021 12:31 PM	I did hybrid learning, so it made it easy to understand and see face to face what physical things I needed to learn. Then gave the online portion to doing the more mental things.
Dec 06 2021 10:30 AM	The zoom meetings recordings was very helpful you could go back and watch and learn
Dec 05 2021 09:53 PM	Getting to do video chat
Dec 05 2021 06:07 PM	It was meat and seafood. I enjoyed doing the class though zoom with Chef Hall. He showed us what we needed to do and then we did it.
Dec 05 2021 11:03 AM	You can set your own schedule and it's more convenient
Dec 02 2021 09:18 PM	more flexible in time and places.
Dec 01 2021 09:38 AM	It's more flexible you can do it on your own time
Nov 30 2021 08:23 PM	you have more time to do the assignments.
Nov 28 2021 12:56 PM	not having to meet in a classroom setting
Nov 22 2021 12:10 PM	The advantages was that I could still work to provide a roof over my head and food on the table while getting my education especially with the inflated cost of living!
Nov 20 2021 08:54 AM	Flexibility
Nov 18 2021 02:14 PM	I was able to complete my assignments around my work schedule
Nov 17 2021 11:17 AM	the meetings were u meet the instructor
Nov 16 2021 11:54 AM	I was still able to learn and be able to do the things I have to for myself
Nov 16 2021 08:06 AM	Convenient, self-paced, great learning modules
Nov 15 2021 09:18 PM	I think that the zoom classes helped give us the information and techniques at home. Even if I am not feeling well I can still do my zoom classes and homework lectures. It really help reduce excuses.
Nov 15 2021 11:25 AM	Flexibility of doing work when you want to do it
<b>Q10. What were the disadvantages of this online course?</b>	
Dec 14 2021 05:54 PM	more time and available products for cuts that require time to learn
Dec 12 2021 11:48 PM	Not having a set time/date to sit down and do work
Dec 12 2021 09:02 PM	If you're starting to cut something the wrong way, there is no one there to tell you how to fix it at that time
Dec 12 2021 08:46 PM	not face to face
Dec 07 2021 02:53 PM	You don't get the same experience

Dec 07 2021 02:52 PM	I rather be face to face for learning
Dec 06 2021 12:31 PM	Ensuring everything has been finished while covering the same bases with other classes.
Dec 06 2021 10:30 AM	The disadvantage was dealing with the seafood
Dec 05 2021 09:53 PM	Connection of Wi-Fi at home.
Dec 05 2021 06:07 PM	I did not have any disadvantages.
Dec 05 2021 11:03 AM	You can get easily distracted and you don't have that one-on-one with your instructor
Dec 02 2021 09:18 PM	The teacher doesn't teaching directly if you make a mistake or use the wrong technic.
Dec 01 2021 09:38 AM	Is not being able to ask questions in person or if you're hands on person
Nov 30 2021 08:23 PM	The teacher was not very warming when it came to asking anything.
Nov 28 2021 12:56 PM	working and having assignments turned in on time
Nov 22 2021 12:10 PM	The convenience of it, the information was accessible at any given time, resources that I get once in class are available as often as I need to review it.
Nov 20 2021 08:54 AM	Not having one on ones for clarity when lost or need help
Nov 18 2021 02:14 PM	I didn't have any
Nov 17 2021 11:17 AM	hours
Nov 16 2021 11:54 AM	When being confused or not having that class room setting
Nov 16 2021 08:06 AM	None
Nov 15 2021 09:18 PM	Seafood garbage to take out.
Nov 15 2021 11:25 AM	Not knowing sometimes what to do on a certain assignment.
<b>Q12. How did this course help you feel engaged/connected with your instructor?</b>	
Dec 14 2021 05:54 PM	he gave his insights on the do and don't he learned concerning this course
Dec 12 2021 11:48 PM	He answered questions/emailed quickly and accurately and he interacted with students on a personal level
Dec 12 2021 09:02 PM	We met virtually in class every Wednesday evening. He also replied back to emails in a timely manner
Dec 12 2021 08:46 PM	Access to my Professor was 24/7. I felt connected because of this
Dec 07 2021 02:53 PM	It did not, it felt like I was teaching myself
Dec 07 2021 02:52 PM	I only felt engaged whenever I was in the classroom
Dec 06 2021 12:31 PM	Somewhat
Dec 06 2021 10:30 AM	Very engaged and the instructor gave out good advice
Dec 05 2021 09:53 PM	I had a better hand on experience and was comfortable with being at home and being shown different things on video chat
Dec 05 2021 06:07 PM	I felt I had more of an opportunity to talk to my instructor.
Dec 05 2021 11:03 AM	It was in person class and I can ask questions
Dec 02 2021 09:18 PM	Not really, I think I mostly connected with the instructor that I've ever met before.
Dec 01 2021 09:38 AM	It was in-person
Nov 30 2021 08:23 PM	The in-person classes.
Nov 28 2021 12:56 PM	weekly zoom calls
Nov 22 2021 12:10 PM	My professor was on zoom we saw him and asked as many questions as we needed to. He explained very well and demonstrated procedure also.
Nov 20 2021 08:54 AM	Having live zooms helped
Nov 18 2021 02:14 PM	Easy access to my instructor in a timely matter
Nov 17 2021 11:17 AM	i stayed really focused
Nov 16 2021 11:54 AM	He was very nice and his videos are well put together and very helpful
Nov 16 2021 08:06 AM	He had a Monday evening Zoom classes scheduled. We went over lectures, questions, and plate presentation. The best part was being able to connect with my classmates and express my concerns and excitement with no judgment. I appreciated being able to express myself open and free without judgment.
Nov 15 2021 09:18 PM	zoom classes, email and phone conversations are readily made available from my instructor
Nov 15 2021 11:25 AM	It didn't

<b>Q13. How did this course help you feel engaged/connected with your classmates?</b>	
Dec 14 2021 05:54 PM	informative
Dec 12 2021 11:48 PM	Got to form new bonds with people
Dec 12 2021 09:02 PM	When we met virtually, we were able to hear our classmates questions and thoughts on the assignment we were working on for that week
Dec 12 2021 08:46 PM	N/A
Dec 07 2021 02:53 PM	I did not, I barely knew there were other people taking the online course
Dec 07 2021 02:52 PM	I made couple friends that was about it
Dec 06 2021 12:31 PM	I made some friends and learned a lot about them, what brought them to this school, and how we all differed in learning styles.
Dec 06 2021 10:30 AM	It was fun asking them their experience with assignments before I did the assignments
Dec 05 2021 09:53 PM	It helped a lot to know that most of my classmates experienced the same things I did
Dec 05 2021 06:07 PM	Me and my class mates where able to communicate and talk.
Dec 05 2021 11:03 AM	It was in person class we got to talk to each other or go out to eat after class
Dec 02 2021 09:18 PM	For this exactly not. I only connected with my friends that I met at the same classes.
Dec 01 2021 09:38 AM	In person classes we could talk
Nov 30 2021 08:23 PM	I got to learn different thing's from them!
Nov 28 2021 12:56 PM	weekly zoom calls
Nov 22 2021 12:10 PM	I was able to see and talk to them as well.
Nov 20 2021 08:54 AM	Being able to talk and help one another in zoom
Nov 18 2021 02:14 PM	It felt like in-person class while we were online no different really
Nov 17 2021 11:17 AM	i ask questions and i listen to what other people had to say
Nov 16 2021 11:54 AM	It helped me because everyone can post and talk on thursdays
Nov 16 2021 08:06 AM	Via zoom meetings. We had an awesome class full of really talented chefs-in-training.
Nov 15 2021 09:18 PM	We conversated during zoom classes and emails.
Nov 15 2021 11:25 AM	It didn't
<b>Q14. How did this course help you feel engaged/connected with course content?</b>	
Dec 14 2021 05:54 PM	analytical
Dec 12 2021 11:48 PM	I learned alot
Dec 12 2021 09:02 PM	On Blackborad, there were helpful videos as well as the chapters in the book we were working on that week
Dec 12 2021 08:46 PM	Course content was clear and available
Dec 07 2021 02:53 PM	It did not, when I had to watch videos instead of learning in class it was harder for me to grasp
Dec 07 2021 02:52 PM	I really can not answer
Dec 06 2021 12:31 PM	Coming in each week kept me connected to the course instead of just doing online and forgetting about everything.
Dec 06 2021 10:30 AM	I felt engaged
Dec 05 2021 09:53 PM	It made me feel more at ease.
Dec 05 2021 06:07 PM	The Zoom meeting is where we connected and sessions were recorded.
Dec 05 2021 11:03 AM	We can ask questions in class if we had any
Dec 02 2021 09:18 PM	This is really help because the study course is more easier and complete.
Dec 01 2021 09:38 AM	If we discussed it in class
Nov 28 2021 12:56 PM	everything was online
Nov 22 2021 12:10 PM	The course content was well laid out and it flowed well with the reading assignments
Nov 20 2021 08:54 AM	By allowing use to move as a class together and one on one
Nov 18 2021 02:14 PM	Very manageable
Nov 17 2021 11:17 AM	by me logging on time
Nov 16 2021 11:54 AM	Chef is a wonderful instructor and is helpful when trying to help people succeed

Nov 16 2021 08:06 AM	I liked having modules, recipes, and you tube videos broken down weekly. We also had a weekly zoom meeting that explained what the cook and module was this week.
Nov 15 2021 09:18 PM	Lectures, videos and the course content sections is done in a timely manner and gives us plenty time to complete our assignments
Nov 15 2021 11:25 AM	It didn't
<b>Q17. How did your instructor maintain interaction and engagement with you?</b>	
Dec 14 2021 05:54 PM	gave very informative constructive criticism
Dec 12 2021 11:48 PM	Constant help when I needed it
Dec 12 2021 09:02 PM	We met virtually on Wednesday evenings. We've talked through email as well
Dec 12 2021 08:46 PM	in any way I needed, offered in person, or online which ever met my needs
Dec 07 2021 02:53 PM	He walked around class while I was working and answered all my questions and showed me the proper way to do things when I needed help
Dec 07 2021 02:52 PM	In face to face
Dec 06 2021 12:31 PM	Emails, Blackboard announcements and updates, in-class instruction.
Dec 06 2021 10:30 AM	He did an awesome job always answered questions and gives good feedback
Dec 05 2021 09:53 PM	Anytime I had a question he would answer it, he was pretty engaged with my learning and helping when I had problems
Dec 05 2021 06:07 PM	Through email and zoom meetings.
Dec 05 2021 11:03 AM	In person class
Dec 02 2021 09:18 PM	with the e-mail.
Dec 01 2021 09:38 AM	In person classes
Nov 30 2021 08:23 PM	My instructor mainly just did over views of the class he never had to much to say unless you went and asked him yourself.
Nov 28 2021 12:56 PM	emails and zoom calls
Nov 22 2021 12:10 PM	He maintained interaction and engagement with by zoom session and you could talk with him and view the food being prepared.
Nov 20 2021 08:54 AM	Email and zoom
Nov 18 2021 02:14 PM	Weekly zoom classes and accessibly to him though email, and text
Nov 17 2021 11:17 AM	by me listening and staying focused
Nov 16 2021 11:54 AM	He emailed and did videos and lectures
Nov 16 2021 08:06 AM	Weekly zoom meetings, email, and texting. Chef is very accessible and always happy to help.
Nov 15 2021 09:18 PM	We've talked at school when I picked up supplies, zoom, email and phone
Nov 15 2021 11:25 AM	Over a zoom call and email
<b>Q18. How could you and your instructor have maintained greater interaction and engagement?</b>	
Dec 14 2021 05:54 PM	meeting on campus once month for a monthly review
Dec 12 2021 11:48 PM	Me paying more attention
Dec 12 2021 09:02 PM	I feel like enough interaction was given
Dec 12 2021 08:46 PM	We did great
Dec 07 2021 02:53 PM	I think we did a good job when we were in person
Dec 07 2021 02:52 PM	Need more engagement in classrooms
Dec 06 2021 12:31 PM	.
Dec 06 2021 10:30 AM	He was awesome no need for improvement
Dec 05 2021 09:53 PM	Wasn't needed for greater interaction. We had pretty good interaction
Dec 05 2021 06:07 PM	Every thing was good with engagement.
Dec 05 2021 11:03 AM	No feedback
Dec 02 2021 09:18 PM	I think doing the consultation about study.
Dec 01 2021 09:38 AM	No feedback
Nov 30 2021 08:23 PM	If he was more open to any questions.
Nov 28 2021 12:56 PM	it was good

Nov 22 2021 12:10 PM	He did everything he needed to do to interact and engage with me.
Nov 20 2021 08:54 AM	Zooms or email/text
Nov 18 2021 02:14 PM	It was just fine nothing to improve
Nov 17 2021 11:17 AM	giving me advice
Nov 16 2021 11:54 AM	no way he did great
Nov 16 2021 08:06 AM	He already offered that, so I have no other suggestions.
Nov 15 2021 09:18 PM	I'm good, I think our interaction and engagement met my requirements. He made himself available in many avenues for whenever we needed to communicate
Nov 15 2021 11:25 AM	Maybe If I made a effort to contact him at least once a week.
<b>Q19. How did you and your classmates maintain interaction and engagement with each other?</b>	
Dec 14 2021 05:54 PM	giving learning tips
Dec 12 2021 11:48 PM	Very well
Dec 12 2021 09:02 PM	Through the virtual meeting
Dec 12 2021 08:46 PM	It is really not necessary for me to interact with classmates
Dec 07 2021 02:53 PM	We did not during online days, in person days we did well.
Dec 07 2021 02:52 PM	Just talking and helping one another throughout the class
Dec 06 2021 12:31 PM	We would email if needed, but mostly text and FaceTime.
Dec 06 2021 10:30 AM	Good
Dec 05 2021 09:53 PM	They had pretty good engagement as well
Dec 05 2021 06:07 PM	we were able stay interacted with each other.
Dec 05 2021 11:03 AM	In person class
Dec 02 2021 09:18 PM	With social media.
Dec 01 2021 09:38 AM	In person classes talking to each other
Nov 30 2021 08:23 PM	By helping and talking to each other.
Nov 28 2021 12:56 PM	zoom calls
Nov 22 2021 12:10 PM	On our zoom sessions and we exchange numbers.
Nov 20 2021 08:54 AM	Exchange phone number
Nov 18 2021 02:14 PM	During our zoom classes
Nov 17 2021 11:17 AM	by listening
Nov 16 2021 11:54 AM	we talked and could post to each other
Nov 16 2021 08:06 AM	Weekly zoom meetings
Nov 15 2021 09:18 PM	Zoom classes and email
Nov 15 2021 11:25 AM	We didn't
<b>Q20. How could you and your classmates have maintained greater interaction and engagement with each other?</b>	
Dec 14 2021 05:54 PM	meeting once a month on campus
Dec 12 2021 11:48 PM	communicate more outside of class
Dec 12 2021 09:02 PM	If we talked through email and by phone, or met in person
Dec 12 2021 08:46 PM	N/A
Dec 07 2021 02:53 PM	If there was an option during online portions to talk with classmates
Dec 07 2021 02:52 PM	Like just hanging out and just not only at the school
Dec 06 2021 12:31 PM	More group labs!!
Dec 06 2021 10:30 AM	Im not sure
Dec 05 2021 09:53 PM	We all talked, so it was fine
Dec 05 2021 06:07 PM	We seen each other in zoom
Dec 05 2021 11:03 AM	Exchanged numbers
Dec 02 2021 09:18 PM	Social media.
Dec 01 2021 09:38 AM	No feedback
Nov 30 2021 08:23 PM	I think for the most part we did have a good interaction with each other.

Nov 28 2021 12:56 PM	it was good
Nov 22 2021 12:10 PM	We talk every week and on the phone, that really enough or more than enough time lol.
Nov 20 2021 08:54 AM	Calling and texting one another
Nov 18 2021 02:14 PM	Nothing to improve it was great
Nov 17 2021 11:17 AM	by doing a zoom meeting
Nov 16 2021 11:54 AM	more open discision on black board
Nov 16 2021 08:06 AM	Maybe made an online chat on blackboard to ask each other questions and make comments
Nov 15 2021 09:18 PM	I am good with the amount of interaction and engagement, I do not seek more I liked what we had.
Nov 15 2021 11:25 AM	I don't know maybe making comments on things.
<b>Q21. How did you personally connect and engage with the content of the course and remain engaged with the topics presented throughout the semester?</b>	
Dec 14 2021 05:54 PM	reminisced on past experiences at a butcher shop. youtube
Dec 12 2021 11:48 PM	Lots of timers on my phone
Dec 12 2021 09:02 PM	I was learning something new, which I like to do. Also, with this being an online course, we were able to keep all the meats and seafood we fabricated
Dec 12 2021 08:46 PM	Blackboard
Dec 07 2021 02:53 PM	I showed up to class each week
Dec 07 2021 02:52 PM	It couldn't stay engaged with any courses
Dec 06 2021 12:31 PM	This semester went by so fast I just had to keep reminding myself how close the end of semester really was.
Dec 06 2021 10:30 AM	I enjoy learning new things so it was fun and interesting
Dec 05 2021 09:53 PM	We had different things to learn how to cook. So it helped me stay engaged with the class.
Dec 05 2021 06:07 PM	I would check my emails and zoom meeting and then I would re-watch the meetings.
Dec 05 2021 11:03 AM	Read and watched YouTube videos
Dec 02 2021 09:18 PM	from the blackboard
Dec 01 2021 09:38 AM	Is a person class In person lecture
Nov 28 2021 12:56 PM	weekly updates and assignments posted online
Nov 22 2021 12:10 PM	By being able to prepare my labs in the privacy of my own home it allow me the opportunity to connect with the course content and engage with the topics.
Nov 20 2021 08:54 AM	It kept me on my toes and alert
Nov 18 2021 02:14 PM	I enjoyed learning and was eager for the next assignment
Nov 17 2021 11:17 AM	by staying focused listening to the teacher
Nov 16 2021 11:54 AM	I really liked the videos and how they explained the material in this course
Nov 16 2021 08:06 AM	I checked each module at the beginning of the week. I wrote down assignments and then would cross them off to stay organized as I completed the course work.
Nov 15 2021 09:18 PM	It was easy for me to stay connected at my own pace and opportunities of schedule times. The topics were challenging and so interesting I was eager for the next assignment to conquer
Nov 15 2021 11:25 AM	Payed close attention to detail.
<b>Q22. How could the course have been designed to encourage greater connection, interaction, and engagement with the content of the course?</b>	
Dec 14 2021 05:54 PM	increase more time learning rather than completing assignments
Dec 12 2021 11:48 PM	I dont know
Dec 12 2021 09:02 PM	No greater connection was needed
Dec 12 2021 08:46 PM	N/A it was fine
Dec 07 2021 02:53 PM	I think it did a good job as it was.

Dec 07 2021 02:52 PM	If just going over chapters in the book and not just keeping going on to next chapters
Dec 06 2021 12:31 PM	more group labs.
Dec 06 2021 10:30 AM	Im not sure
Dec 05 2021 09:53 PM	I would have like to learn about a lot more things to cook
Dec 05 2021 06:07 PM	The course was designed great.
Dec 05 2021 11:03 AM	I don't know
Dec 02 2021 09:18 PM	from the blackboard tools
Dec 01 2021 09:38 AM	No feedback
Nov 28 2021 12:56 PM	nothing more was needed
Nov 22 2021 12:10 PM	I think the online sessions give you an advantage you don't have in class without violating the Covid-19 guidelines. With the numbers on the rise, online should always be offered especially if you have underlining conditions.
Nov 20 2021 08:54 AM	I think the zoom calls are doing great. But maybe if someone needs help they can schedule one on ones. Some people are ashamed to ask in front of others
Nov 18 2021 02:14 PM	It was great for me nothing more to improve
Nov 17 2021 11:17 AM	listening to what other people had to say and by giving advice
Nov 16 2021 11:54 AM	I think there should have been more engaging lessons for your mind not just the hands on content
Nov 16 2021 08:06 AM	I would change nothing about the organization and design.
Nov 15 2021 09:18 PM	I have had 1 other online lab culinary classes and I can't think of any improvements at this time other than possibly allowing us to sign out small tools like an oyster knife
Nov 15 2021 11:25 AM	Self motivated
<b>Q27. What hurdles did you face in this online course?</b>	
Dec 14 2021 05:54 PM	maintaining time to complete assignments
Dec 12 2021 11:48 PM	Focusing
Dec 12 2021 09:02 PM	Killing a lobster was my only hurdle
Dec 12 2021 08:46 PM	Getting use to being online and using blackboard
Dec 07 2021 02:53 PM	Problems with internet connection. Not being able to ask for help when I cant figure out how to get a cut right.
Dec 07 2021 02:52 PM	Technology problems, staying focus
Dec 06 2021 12:31 PM	Staying motivated
Dec 06 2021 10:30 AM	Forgetting to rewatch some of the zoom meetings
Dec 05 2021 09:53 PM	Wifi connection, and getting my iPad to edit certain videos
Dec 05 2021 06:07 PM	I did not have any struggles
Dec 05 2021 11:03 AM	Hat in person class
Dec 02 2021 09:18 PM	hard to communicating and less social interactions
Dec 01 2021 09:38 AM	Getting distracted easily
Nov 30 2021 08:23 PM	Getting questions answered.
Nov 28 2021 12:56 PM	none
Nov 22 2021 12:10 PM	I really didn't have any!
Nov 20 2021 08:54 AM	Staying focused
Nov 18 2021 02:14 PM	This may sound cheesy but I didn't have any
Nov 17 2021 11:17 AM	the hours
Nov 16 2021 11:54 AM	Making sure to make time for all my online classes
Nov 16 2021 08:06 AM	Nothing different than a normal class. Finding the time to get everything in with a full time job.
Nov 15 2021 09:18 PM	The biggest hurdle I faced was coming to terms with the fact that I cannot salvage all trimming scrapes
Nov 15 2021 11:25 AM	Being shy
<b>Q28. How do you think taking this online course has impacted your learning?</b>	

Dec 14 2021 05:54 PM	learning that time waits on no man.
Dec 12 2021 11:48 PM	Ive learned alot
Dec 12 2021 09:02 PM	Since I was able to take my time & work at my own pace, after our virtual meeting, in learning how to properly cut up meats and seafood
Dec 12 2021 08:46 PM	Great experience
Dec 07 2021 02:53 PM	Im not really sure how to answer this question because I took in person classes
Dec 07 2021 02:52 PM	Nothing
Dec 06 2021 12:31 PM	Preparing real future skills and practices
Dec 06 2021 10:30 AM	In good a way I learned to stay focus and follow directions
Dec 05 2021 09:53 PM	It's helped a lot and it's something I would love to continue to do
Dec 05 2021 06:07 PM	I liked being able to go back to zoom meeting to see what I might have missed.
Dec 05 2021 11:03 AM	Had in person class
Dec 02 2021 09:18 PM	yes, I think.
Dec 01 2021 09:38 AM	Had in person classes
Nov 30 2021 08:23 PM	I think it has taught me to be on top of myself.
Nov 28 2021 12:56 PM	made me more disciplined
Nov 22 2021 12:10 PM	It has prepared me to be able to do an online masters degree as well. I am more proficient with using blackboard now from using it this summer now. I love it!
Nov 20 2021 08:54 AM	It has helped to learn more discipline
Nov 18 2021 02:14 PM	It has broaden my recipes
Nov 17 2021 11:17 AM	interacting with the teacher
Nov 16 2021 11:54 AM	I think it helped me to learn teqniques that I may use in the future
Nov 16 2021 08:06 AM	I think it's helped me stay organized and get closer to achieving my goals
Nov 15 2021 09:18 PM	I can fabricate different types of meat and seafood, I can participate via zoom with my class
Nov 15 2021 11:25 AM	Not much
<b>Q29. What would help improve/enhance your learning in an online course?</b>	
Dec 14 2021 05:54 PM	executing taking time to do assignments sooner rather than waiting till last minute.
Dec 12 2021 11:48 PM	Taking my meds
Dec 12 2021 09:02 PM	If all courses could have an online meeting time to do a quick review & ask questions to make sure everyone is on the same page
Dec 12 2021 08:46 PM	more allowable time to complete material
Dec 07 2021 02:53 PM	Im not sure, I honestly don't understand the point in taking a completely online course for this field since it is an extremely hands on field .
Dec 07 2021 02:52 PM	Stay focus
Dec 06 2021 12:31 PM	Maybe check ins, observing students to see where their at, or if they're confused at all week to week
Dec 06 2021 10:30 AM	Not sure
Dec 05 2021 09:53 PM	Nothing.
Dec 05 2021 06:07 PM	Nothing
Dec 05 2021 11:03 AM	No feedback
Dec 02 2021 09:18 PM	Maybe the instructor should do zoom meeting.
Dec 01 2021 09:38 AM	Weekly zoom meetings
Nov 30 2021 08:23 PM	Better communication.
Nov 28 2021 12:56 PM	nothing
Nov 22 2021 12:10 PM	What would help me is to be able to have this experience continue.
Nov 20 2021 08:54 AM	More zoom and one on one zooms
Nov 18 2021 02:14 PM	I don't see where there needs to be any improvement it was great
Nov 17 2021 11:17 AM	staying focused & listening
Nov 16 2021 11:54 AM	More time for certain subjects
Nov 16 2021 08:06 AM	Nothing I can think of at the moment.

Nov 15 2021 09:18 PM	At this point I truly can't think of anything I'm so impressed with the way things are going I'm good
Nov 15 2021 11:25 AM	More communication
<b>Q30. What advice do you have for an instructor planning to set up an online course?</b>	
Dec 14 2021 05:54 PM	ensure more time and products when cutting meats that maybe challenging.
Dec 12 2021 11:48 PM	Keep engaged with your students, check up on them periodically
Dec 12 2021 09:02 PM	Have a time to meet virtually with your students in hands on classes, respond to emails in a timely manner, don't make the online course harder than the in-peron course
Dec 12 2021 08:46 PM	Allow more time to complete assignments
Dec 07 2021 02:53 PM	Dont
Dec 06 2021 12:31 PM	Ensure your students are understanding the material that isn't explained via video or instruction.
Dec 06 2021 10:30 AM	Continue with the zoom meetings and recordings that helps alot but please give a description for the upcoming weeks assignments so we will know because I didn't know how delicate some seafood were and I waited the last minute to do an assignment if I would have known I would of took it more serious
Dec 05 2021 09:53 PM	I don't really have any advice
Dec 05 2021 06:07 PM	Be sure you use and have zoom meetings. this is what kept me on track.
Dec 05 2021 11:03 AM	Make it user friendly as possible
Dec 02 2021 09:18 PM	have a great learning videos, material, also communicating with the students
Dec 01 2021 09:38 AM	Extra communication
Nov 30 2021 08:23 PM	Always be checking your email for questions and be open to any questions don't give off thee impressions you don't like to be asked anything because then on one will be willing to come to you when they have on.
Nov 28 2021 12:56 PM	make sure all assignments are posted and graded in a timely manner
Nov 22 2021 12:10 PM	Just continue to follow the course content and listen always to the student when they explain and be accessible.
Nov 20 2021 08:54 AM	Set up one on one options
Nov 18 2021 02:14 PM	Be accessible and understanding that everyone learns differently
Nov 17 2021 11:17 AM	give people great advice
Nov 16 2021 11:54 AM	Good instructions is key
Nov 16 2021 08:06 AM	Utilize good you tube videos. Allow for conferencing and have flexible office hours
Nov 15 2021 09:18 PM	Make yourself available and don't assume we know what's going on, ask. Use videos and zoom demonstrations
Nov 15 2021 11:25 AM	More communication

<b>Spring 2022 Online Culinary Post Course Survey</b>	
<b>Q2. What did you like about this online culinary or baking course?</b>	
May 05 2022 06:46 AM	<p>Eating all the food.</p> <p>The instructor worked very hard to make the learning environment as close to the commercial kitchen as possible. He had a multiple camera setup that was very helpful to see all the different areas being utilized.</p> <p>I also really enjoyed the character of our class. Everyone was very positive and engaged.</p> <p>Having access to the zoom video of the class after the class was over was very helpful.</p>
Apr 24 2022 09:28 PM	I like that I could do it at home at anytime I choose too
Apr 24 2022 05:14 PM	It was really fun to be so hands on with learning and succeeding in some techniques with practice.
Apr 23 2022 11:12 AM	I liked that we learned many different knife skills

Apr 22 2022 08:17 PM	I like being able to just focus on the daily tasks in class and the course work outside of class time. I also like being able to go back to a certain class and review the cuts of the day through video posted by my Chef.
Apr 22 2022 03:37 AM	I liked the videos on YouTube that chef hall posted, the various angles helped me a lot.
Apr 19 2022 11:09 PM	I was in in-person classes
Apr 19 2022 10:39 PM	I liked how we actually learned stuff instead of it just being something that the teacher threw together to meet a requirement
Apr 18 2022 10:14 AM	I like it because the scheduling
Apr 17 2022 07:20 PM	I liked the fact I got to do all the work from the comfort of my own home, while maintaining a quick pace.
Apr 17 2022 01:47 PM	the pattern to when assignments where due
Apr 17 2022 12:06 PM	It worked with myschedule
Apr 16 2022 11:20 PM	The “ Yes Chef” videos
Apr 16 2022 09:00 AM	More efficient
Apr 16 2022 08:13 AM	The convenience, I couldn’t have taken the course any other way.
Apr 15 2022 09:46 PM	Making things I have not made at home.
<b>Q3. What did you dislike about this online culinary or baking course?</b>	
May 05 2022 06:46 AM	<p>On days where we didn’t cook in class and we cooked on our own, it seemed like this class took a whole lot of time. We were essentially taking the time to watch chef cook, and then took the same amount of time for us to prepare the meal if not more because I would reference the zoom video.</p> <p>I still felt somewhat uncomfortable in the commercial kitchen because I didn’t know where things were located or what all the exact proper procedures were because I hadn’t executed them all semester—especially cleanup.</p>
Apr 24 2022 09:28 PM	I could not get the help, I needed it right away.
Apr 24 2022 05:14 PM	At first it was really fast paced and learning what utensils were and how to use them were a hassle.
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	I enjoy all of my classes. I feel like this went well with a good group together.
Apr 22 2022 03:37 AM	I understand why there’s a lot of assignments to the class, because a lot people won’t take the time to read a chapter and study so a few test and assignments make up for those people. However, this made it difficult for me to actually have enough time to read a chapter and study. I felt overwhelmed with busy work that I wasn’t able to actually immerse in the information. The chef interviews were nice tho.
Apr 19 2022 11:09 PM	in person
Apr 19 2022 10:39 PM	I have no complaints
Apr 18 2022 10:14 AM	i like being with the students too
Apr 17 2022 07:20 PM	I wish there had been more hands-on training, but I understand that's hard to do with an hybrid course.
Apr 17 2022 01:47 PM	the lack of ability to communicate via blackboard
Apr 17 2022 12:06 PM	Nothing
Apr 16 2022 11:20 PM	Sometimes I had problems turning in an assignment.
Apr 16 2022 09:00 AM	When you don't understand things, you can't ask immediately
Apr 16 2022 08:13 AM	I had no dislikes.
Apr 15 2022 09:46 PM	None
<b>Q7. Before taking this course, what was your impression of online learning?</b>	
May 05 2022 06:46 AM	I am not a huge fan of online learning. I think there’s a lot to be gained from physically interacting with people.
Apr 24 2022 09:28 PM	I really thought it would be difficult to work

Apr 24 2022 05:14 PM	It was very difficult to do because there were a lot of distractions
Apr 23 2022 11:12 AM	Harder than in person
Apr 22 2022 08:17 PM	I am a fan of the option for online learning. I finished my criminal justice degree online on class at a time when they were just starting to offer them online. I don't mind
Apr 22 2022 03:37 AM	I have had online classes that were more information and book oriented and they were not too different from regular classes. I expected a similar result, more book reading and YouTube watching and self guided learning.
Apr 19 2022 11:09 PM	I was thinking we would have lots of on hand things we would do.
Apr 19 2022 10:39 PM	I did not like it
Apr 18 2022 10:14 AM	same i like the scheduling to work around my work schedule
Apr 17 2022 07:20 PM	Thoroughly enjoyed online learning.
Apr 17 2022 01:47 PM	it was more difficult
Apr 17 2022 12:06 PM	I like it
Apr 16 2022 11:20 PM	I didn't like it
Apr 16 2022 09:00 AM	I thought is going to be easy
Apr 16 2022 08:13 AM	A realistic one, I've taken classes online, they just require discipline
Apr 15 2022 09:46 PM	Good impression
<b>Q8. After taking this course, what are your impressions of online learning?</b>	
May 05 2022 06:46 AM	I still prefer being in person. There are a lot of things that you can pick up on just by observation. With that being said, this specific online class was still effective. I personally just do better in an environment where I can touch, feel, and see exactly what I need to be doing.
Apr 24 2022 09:28 PM	now I know its simply and not difficult to work on
Apr 24 2022 05:14 PM	It isn't as bad as I thought it would be. Having the instructions as well as the lab demo helped a lot.
Apr 23 2022 11:12 AM	Not harder than in person
Apr 22 2022 08:17 PM	Online learning is an option for some people. For culinary classes I prefer in person.
Apr 22 2022 03:37 AM	I don't think I would do this for Culinary school. I only took the hybrid class and I truly feel like I missed out by not having those few extra hours and instead more online work. I just feel like the online textbook stuff can help a person become a better chef but the BEST experience will come from in person classes.
Apr 19 2022 11:09 PM	I can see its something i really do like because i like how you get to work with others and learn new things.
Apr 19 2022 10:39 PM	I liked the way that chef hall does it, but still don't like the way that others do it
Apr 18 2022 10:14 AM	same
Apr 17 2022 07:20 PM	Still enjoy online learning if setup properly. Not all courses should be online.
Apr 17 2022 01:47 PM	it's easier with a organized instructor
Apr 17 2022 12:06 PM	Same
Apr 16 2022 11:20 PM	Still don't like it
Apr 16 2022 09:00 AM	It is simple but the web have a lot of things that will make you confuse
Apr 16 2022 08:13 AM	For something so technical, I may prefer in person
Apr 15 2022 09:46 PM	Doing assignments early
<b>Q9. What were the advantages of this online course?</b>	
May 05 2022 06:46 AM	My family got to enjoy all the food that was prepared. I was in a comfortable environment where I knew where everything was. If something did not come out right, I could always try it again using my own ingredients.
Apr 24 2022 09:28 PM	doing the work at anytime day or night
Apr 24 2022 05:14 PM	You were able to learn without showing up for class.
Apr 23 2022 11:12 AM	Able to do the homework at my own pace

Apr 22 2022 08:17 PM	For food 1, I really like having the videos in different angles to refer back to during home practice
Apr 22 2022 03:37 AM	Anywhere learning. Decide when to watch videos and do school work.
Apr 19 2022 11:09 PM	Being able to have time to do your work.
Apr 19 2022 10:39 PM	I had all week to complete my work
Apr 18 2022 10:14 AM	scheduling
Apr 17 2022 07:20 PM	I could perform the necessary work at any time of the day from home.
Apr 17 2022 01:47 PM	it helped with time management
Apr 17 2022 12:06 PM	Schedule
Apr 16 2022 11:20 PM	Doing my work from home
Apr 16 2022 09:00 AM	More efficient and easy
Apr 16 2022 08:13 AM	Flexibility for a non traditional student
Apr 15 2022 09:46 PM	Cooking things I never tried
<b>Q10. What were the disadvantages of this online course?</b>	
May 05 2022 06:46 AM	I think the biggest thing to me was that some weeks took a whole lot of time. Even loading up the pictures and proof of what had been done takes time and effort because blackboard doesn't function well on phones. Several of the classes had the instructor show us what to do and then we would cook it on our own. That created an environment that we wouldn't be corrected if we were doing something wrong. So I would have a finished product, but I don't know whether or not I made it in the right manner.
Apr 24 2022 09:28 PM	been able to get answer sooner from the instructor
Apr 24 2022 05:14 PM	If labs were missed you could have possibly missed a new assignment or technique we were learning
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	The only disadvantage to online courses in my opinion, is not having the same access to instructors. Office hours are great, but not always easy to get to for those choosing strictly online classes.
Apr 22 2022 03:37 AM	Missing out on peer interaction, teacher communication, hand knife guidance, missing the gas stove sauté experience.
Apr 19 2022 11:09 PM	Some teachers were not understanding.
Apr 19 2022 10:39 PM	Not as hands on
Apr 18 2022 10:14 AM	person to person
Apr 17 2022 07:20 PM	Not having immediate access to classmates or instructor, if I had a question or concern (however, Chef Hall did respond to email very quickly). Also, wish there had been more lab time.
Apr 17 2022 01:47 PM	lack of communication
Apr 17 2022 12:06 PM	No person
Apr 16 2022 11:20 PM	Physical interaction with the instructor
Apr 16 2022 09:00 AM	Hard to ask instructor
Apr 16 2022 08:13 AM	No real disadvantage
Apr 15 2022 09:46 PM	None
<b>Q12. How did this course help you feel engaged/connected with your instructor?</b>	
May 05 2022 06:46 AM	I knew I could text or email my professor with any questions I had. And I obviously saw him every week for class, so there was the interaction there.
Apr 24 2022 09:28 PM	by knowing i could get in touch with the instructor at any time
Apr 24 2022 05:14 PM	If I had questions or anything like that he was there and would respond when he had the chance
Apr 23 2022 11:12 AM	Chef Hall is a very thorough teacher, loved his way of teaching!
Apr 22 2022 08:17 PM	I like being able to see the weeks lesson before having class in person

Apr 22 2022 03:37 AM	I took the hybrid course so i was able to speak with my instructor in person.
Apr 19 2022 11:09 PM	The in person classes was a more connection but still needed more connection
Apr 19 2022 10:39 PM	It did not, I feel more engaged with him in person
Apr 18 2022 10:14 AM	we had some hands on and i like that to like little fieldtrips
Apr 17 2022 07:20 PM	Enjoyed once a week face-to-face interactions with my instructor and my instructor was very prompt in returning email correspondence.
Apr 17 2022 01:47 PM	his email was available so if i needed i would email him
Apr 17 2022 12:06 PM	Keep me involved
Apr 16 2022 11:20 PM	Didn't feel connected
Apr 16 2022 09:00 AM	Sometimes a meeting
Apr 16 2022 08:13 AM	We had a zoom Class and he was available outside of class time
Apr 15 2022 09:46 PM	Good communication and I always asked for help when I needed it
<b>Q13. How did this course help you feel engaged/connected with your classmates?</b>	
May 05 2022 06:46 AM	We talked a lot during class. Several of us knew each other, so you texted each other with questions. I should've responded with that earlier, but communicating with my classmates via text was probably one of the more helpful aspects of this class. We were able to clarify anything that we were unsure about.
Apr 24 2022 09:28 PM	knowing that i could asked question and get answers
Apr 24 2022 05:14 PM	Everyone would help one another if there were questions while the teacher was out and need some guidance
Apr 23 2022 11:12 AM	Chef Hall had us in teams.
Apr 22 2022 08:17 PM	There is not a lot of online interaction with my classmates in this course.
Apr 22 2022 03:37 AM	I had the hybrid class so I was able to work with them as a team, have conversations, connect and discuss jobs and careers. Chit chat was something I don't think I'd be able to do online and although it's not "necessary", it helps build connections with peers and my environment.
Apr 19 2022 11:09 PM	Doing team dishes and just talking getting to know others is always great.
Apr 19 2022 10:39 PM	Online, I was not engaged at all with them (which im fine with) but when I am in person I enjoy talking and cooking along with them
Apr 18 2022 10:14 AM	talking emails and text
Apr 17 2022 07:20 PM	It wasn't as team-oriented as I was expecting.
Apr 17 2022 01:47 PM	we had intro videos
Apr 17 2022 12:06 PM	Good
Apr 16 2022 11:20 PM	Didn't feel connected
Apr 16 2022 09:00 AM	Meet in the class
Apr 16 2022 08:13 AM	I didn't
Apr 15 2022 09:46 PM	Good
<b>Q14. How did this course help you feel engaged/connected with course content?</b>	
May 05 2022 06:46 AM	All of the course contact was laid out clearly in blackboard, And it was consistent every week.
Apr 24 2022 09:28 PM	it made it easy to view and understand
Apr 24 2022 05:14 PM	It was good to learn and see how things are done so you could go and try to repeat what had been demonstrated
Apr 23 2022 11:12 AM	The online content matched the lab content.
Apr 22 2022 08:17 PM	Being able to go back and review the cuts whenever I need to is very helpful
Apr 22 2022 03:37 AM	The hybrid portion where I was in class helped pull me through the online part. Really, I don't believe I would have been nearly interested in finishing the course if it wasn't for being in class. The hands on experience was valuable for helping me feel more validated as a culinary student, if that makes sense.

Apr 19 2022 11:09 PM	By just staying on top of myself and always uplifting me to do what i need to do.
Apr 19 2022 10:39 PM	It did a very good job of showing me the material
Apr 17 2022 07:20 PM	All content was available with plenty of instructions, explanations and tutorials.
Apr 17 2022 01:47 PM	we had due dates
Apr 17 2022 12:06 PM	Good
Apr 16 2022 11:20 PM	Didn't feel connected
Apr 16 2022 09:00 AM	The nice content
Apr 16 2022 08:13 AM	I had to learn it to pass
Apr 15 2022 09:46 PM	Good
<b>Q17. How did your instructor maintain interaction and engagement with you?</b>	
May 05 2022 06:46 AM	He connected to zoom meetings, responses to texts and emails, and he gave feedback on graded work.
Apr 24 2022 09:28 PM	answering my question in a timely manner
Apr 24 2022 05:14 PM	Either through email or face to face
Apr 23 2022 11:12 AM	He had videos for the online content
Apr 22 2022 08:17 PM	Class was always informative and Chef was circulating to help when necessary.
Apr 22 2022 03:37 AM	Hybrid classes so it was the same for me as a regular class however when I did online work I didn't ask for help. I think I pretended like they were almost separate classes tbh. I didn't connect the instructor with the work for some reason and asking questions about online work while in class felt silly.
Apr 19 2022 11:09 PM	Most of my instructor would be on top of getting back to me when needed and helping me
Apr 19 2022 10:39 PM	He showed up to class each week and talked to me there
Apr 18 2022 10:14 AM	email and little notes
Apr 17 2022 07:20 PM	Quality in-class time, prompt gradings and solid on-line communications.
Apr 17 2022 01:47 PM	jokes and laughter
Apr 17 2022 12:06 PM	Great
Apr 16 2022 11:20 PM	With actual videos of him performing things had to perform as if we were in class physically
Apr 16 2022 09:00 AM	In person and email
Apr 16 2022 08:13 AM	Zoom, email, events, was personable when meeting at school
Apr 15 2022 09:46 PM	Every class period
<b>Q18. How could you and your instructor have maintained greater interaction and engagement?</b>	
May 05 2022 06:46 AM	I think the instructor did a good job. I cannot think of anything extra that needed to be done.
Apr 24 2022 09:28 PM	if it was a way to respond as soon as i asked a question
Apr 24 2022 05:14 PM	Asking questions when needed instead of winging it could have made interaction or engagement greater
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	Not possible unless hanging out after class. Chef is very engaged during classes
Apr 22 2022 03:37 AM	Longer in person classes lol
Apr 19 2022 11:09 PM	.
Apr 19 2022 10:39 PM	I think we did a good job, I was satisfied with the amount of interaction that we had in class
Apr 18 2022 10:14 AM	nothing
Apr 17 2022 07:20 PM	Virtual meetings would possibly have made the experience more interactive.
Apr 17 2022 01:47 PM	more one on one time
Apr 17 2022 12:06 PM	It was fine
Apr 16 2022 09:00 AM	I think some of the gathering program
Apr 16 2022 08:13 AM	I think we're fine

Apr 15 2022 09:46 PM	Communication
<b>Q19. How did you and your classmates maintain interaction and engagement with each other?</b>	
May 05 2022 06:46 AM	Three of us would text each other.
Apr 24 2022 09:28 PM	by interacting in the discussion questions
Apr 24 2022 05:14 PM	Talk about what to expect for the day or anything like that
Apr 23 2022 11:12 AM	We were in teams
Apr 22 2022 08:17 PM	Having other classes together and got close to a few.
Apr 22 2022 03:37 AM	Hybrid class- same as the other in person classes. No phone number trades or emails, just “ see you next week!”
Apr 19 2022 11:09 PM	We had group chats to talk about work and help sometimes.
Apr 19 2022 10:39 PM	We talked before and during classes
Apr 18 2022 10:14 AM	email and talking on phone
Apr 17 2022 07:20 PM	We only interacted in class and on one discussion board.
Apr 17 2022 01:47 PM	we worked in groups
Apr 17 2022 12:06 PM	Phone
Apr 16 2022 11:20 PM	We didn't
Apr 16 2022 09:00 AM	Chatting
Apr 16 2022 08:13 AM	We didn't
Apr 15 2022 09:46 PM	Communication Thur text or black board course message
<b>Q20. How could you and your classmates have maintained greater interaction and engagement with each other?</b>	
May 05 2022 06:46 AM	I wish I had gotten contact information for the other two classmates.
Apr 24 2022 09:28 PM	maybe by talking more often
Apr 24 2022 05:14 PM	We maintained good communication so there isn't anything that could possible change
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	I got close with a couple of my classmates. We have exchanged numbers
Apr 22 2022 03:37 AM	More team building exercises
Apr 19 2022 11:09 PM	By groupme, texting, and even sometimes meeting after classes
Apr 19 2022 10:39 PM	We could have talked after classes but we did not
Apr 18 2022 10:14 AM	in person meet ups
Apr 17 2022 07:20 PM	More discussion board opportunities and possibly virtual meetings.
Apr 17 2022 01:47 PM	we communicated
Apr 17 2022 12:06 PM	In person
Apr 16 2022 11:20 PM	We didn't
Apr 16 2022 09:00 AM	I thing in person group class
Apr 16 2022 08:13 AM	We could have had group projects
Apr 15 2022 09:46 PM	Talk more every class period
<b>Q21. How did you personally connect and engage with the content of the course and remain engaged with the topics presented throughout the semester?</b>	
May 05 2022 06:46 AM	I basically did what the instructor requested us to do. I watch the videos, I went to class, and I made the food, and then I did all the work.
Apr 24 2022 09:28 PM	by reading and learning each steps that was given
Apr 24 2022 05:14 PM	Asking questions and participation
Apr 23 2022 11:12 AM	We got to do multiple different activities online
Apr 22 2022 08:17 PM	The kitchen is my happy place. I love learning new techniques.

Apr 22 2022 03:37 AM	By going to the in person classes. It made me feel like I was getting an actual experience. Too many people have said, "Why go to culinary school when you have YouTube university?" And tbh, I feel like a completely online culinary class would be just like that just more intense. However, Chef hall's feedback and zoom calls were very valuable when I watched them on YouTube and I can see how it was invaluable to the online classes.
Apr 19 2022 11:09 PM	.
Apr 19 2022 10:39 PM	While I was cooking, I was engaged with the content
Apr 18 2022 10:14 AM	same
Apr 17 2022 07:20 PM	Dedicated time every day to read and learn the material. Also promptly asked questions via email, as needed.
Apr 17 2022 01:47 PM	hands on learning
Apr 17 2022 12:06 PM	Online
Apr 16 2022 09:00 AM	I kind of enjoy it
Apr 16 2022 08:13 AM	I had to if I wanted to actually learn something
Apr 15 2022 09:46 PM	Online and doing the work
<b>Q22. How could the course have been designed to encourage greater connection, interaction, and engagement with the content of the course?</b>	
May 05 2022 06:46 AM	I'm not coming up with anything at this time.
Apr 24 2022 09:28 PM	the response time would have made it better being able to hear back in minutes
Apr 24 2022 05:14 PM	Have more hands on interactions instead of observing then going to do it yourself
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	While there is usually room for improvement, I feel that Food 1 is set pretty well at the maximum capacity for connection, interaction and engagement. This class is building personal knife skills. That is not a group activity
Apr 22 2022 03:37 AM	Study guide format learning. I liked the vocabulary and test. Having some quicker assignments with more engaging learning exercises may be helpful. Like matching games, diagram test, quizzes in game platforms. The test were nice because it helped me know what to look for but reading the chapters for information instead of doing some other work was the most helpful but not many people will read a book now.
Apr 19 2022 11:09 PM	.
Apr 19 2022 10:39 PM	I think that it was very well designed, no comments
Apr 18 2022 10:14 AM	nothing
Apr 17 2022 07:20 PM	More discussion board opportunities, team exercises and virtual meetings.
Apr 17 2022 01:47 PM	a open communication line on blackboard
Apr 17 2022 12:06 PM	Nothing
Apr 16 2022 09:00 AM	In person classes
Apr 16 2022 08:13 AM	I think it achieved that, no changes
Apr 15 2022 09:46 PM	Unknown
<b>Q27. What hurdles did you face in this online course?</b>	
May 05 2022 06:46 AM	NA
Apr 24 2022 09:28 PM	learn how to solve problems with help
Apr 24 2022 05:14 PM	Having to work with others on a different pace
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	I am not a writer. I do not enjoy it. I struggle to complete an assignment with specific number of word requirements.
Apr 22 2022 03:37 AM	Motivation.

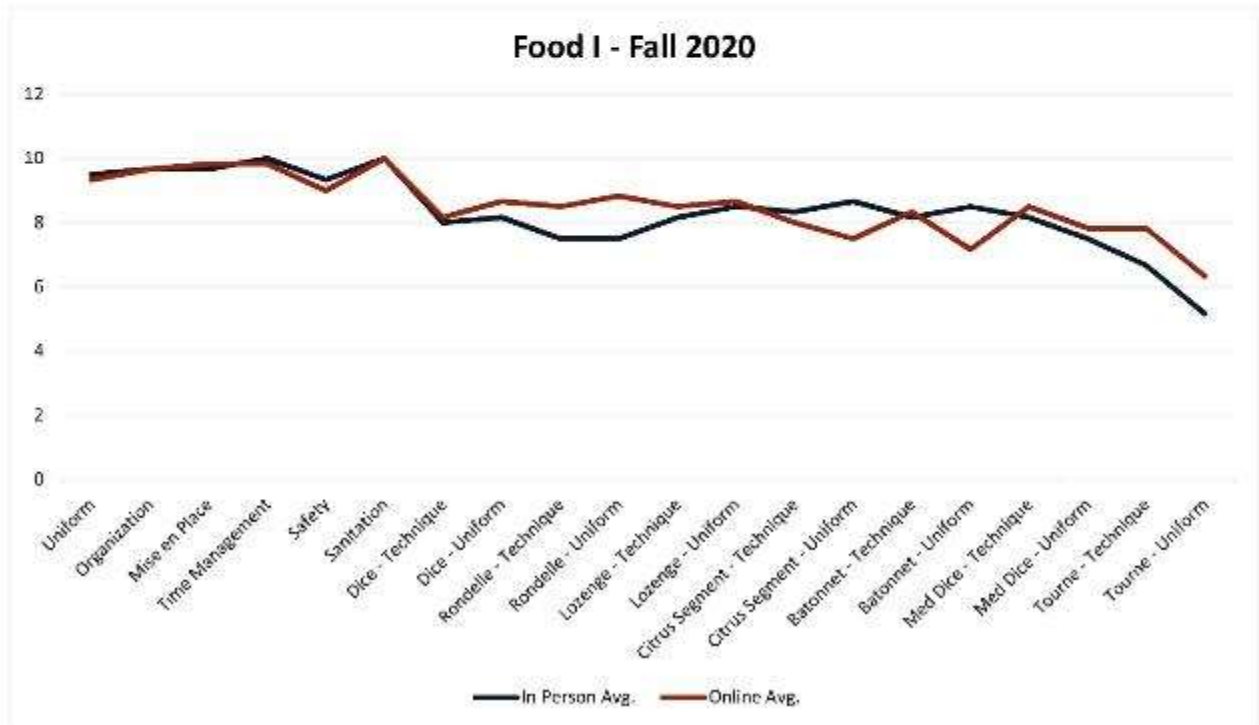
Apr 19 2022 11:09 PM	Sometimes the connection would be bad.
Apr 19 2022 10:39 PM	None come to mind
Apr 18 2022 10:14 AM	nothing
Apr 17 2022 07:20 PM	There was much more math than I realized and I'm not incredibly proficient in mathematics.
Apr 17 2022 01:47 PM	communication
Apr 16 2022 11:20 PM	Turning in assignments
Apr 16 2022 09:00 AM	I don't really understand
Apr 16 2022 08:13 AM	Juggling my 5 classes
Apr 15 2022 09:46 PM	Some of the assignments and the math homework
<b>Q28. How do you think taking this online course has impacted your learning?</b>	
May 05 2022 06:46 AM	This class was very thorough and help me improve on existing techniques I already knew or gave me new techniques to be able to utilize in the future.
Apr 24 2022 09:28 PM	it has help me learn how to use a computer
Apr 24 2022 05:14 PM	It's improve my ability to multitask and cut out distractions
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	My learning was enhanced by having online tools available whenever I needed them.
Apr 22 2022 03:37 AM	I, personally, won't want to do a online culinary course after just doing the hybrid. If I was really desperate I would because anything is better than nothing but I would have to be very motivated.
Apr 19 2022 11:09 PM	i know that i would work better in the class then online
Apr 19 2022 10:39 PM	I think that it helped my learning of the material
Apr 18 2022 10:14 AM	it helped because it worked around my schedule so i could study more
Apr 17 2022 07:20 PM	Learned time management skills and learned to focus better.
Apr 17 2022 01:47 PM	i loved it i think it propelled it
Apr 17 2022 12:06 PM	Great
Apr 16 2022 09:00 AM	Yes, sometimes there is a course that i want to do online
Apr 16 2022 08:13 AM	It enabled me to go to school
Apr 15 2022 09:46 PM	A little better
<b>Q29. What would help improve/enhance your learning in an online course?</b>	
May 05 2022 06:46 AM	For the specific online course, it would've been better to have been cooking while Chef was cooking, but I do understand some of the reasoning behind watching him cook and us just focusing on what he is doing.
Apr 24 2022 09:28 PM	to learn how to asked the right questions
Apr 24 2022 05:14 PM	Lessen all of the essays and projects because having these assignments due every week may not be convenient for some
Apr 23 2022 11:12 AM	N/A
Apr 22 2022 08:17 PM	My biggest fear in taking a completely online class is not getting prompt answers from the instructor when emailing a question.
Apr 22 2022 03:37 AM	Time to read more information. I'm a reader and I learn with a mix of hands on and reading.
Apr 19 2022 11:09 PM	Maybe more support classes
Apr 19 2022 10:39 PM	Having fewer distractions
Apr 18 2022 10:14 AM	may be like have more video chats with class
Apr 17 2022 07:20 PM	More virtual interactions (i.e. Zoom meetings)
Apr 17 2022 01:47 PM	communication windows
Apr 17 2022 12:06 PM	My shyness
Apr 16 2022 09:00 AM	Maybe like the instructor make a QandA section
Apr 16 2022 08:13 AM	Is there culinary tutoring?

Apr 15 2022 09:46 PM	Be online more often
<b>Q30. What advice do you have for an instructor planning to set up an online course?</b>	
May 05 2022 06:46 AM	Have multiple camera angles. Set up instructional videos that can be accessed separately if you're not preparing food together.
Apr 24 2022 09:28 PM	make time to respond back soon
Apr 24 2022 05:14 PM	Make assignments or instructions understandable
Apr 23 2022 11:12 AM	Make sure the correct dates are on assignments
Apr 22 2022 08:17 PM	Be available during office hours by phone, email, or zoom. That would be the best way to ease my personal fears about communication
Apr 22 2022 03:37 AM	Don't bombard the students with course work to fill up the time constitutes. Let the student have some reading and book learning time. Flash card writing, note taking, brain mapping and many more "personal" study techniques also count as overall class study time and if there's too much time dedicated to work then the student might not be able to study the way that works best for them and they may suffer and battle with decreased motivation.
Apr 19 2022 11:09 PM	plan to have a support class so that everyone can have more help.
Apr 19 2022 10:39 PM	Try to make it to where it is as close to in person classes as possible
Apr 18 2022 10:14 AM	encourage the students any way you can
Apr 17 2022 07:20 PM	Think of it from the view of the student and not the instructor. Be relatable. Figure out a way to connect.
Apr 17 2022 01:47 PM	a way to communicate on blackboard
Apr 17 2022 12:06 PM	Do more online
Apr 16 2022 09:00 AM	Q&A section
Apr 16 2022 08:13 AM	The schedule is super important
Apr 15 2022 09:46 PM	None

## APPENDIX M: FOOD I & FOOD II FINAL PRACTICAL EXAM SUMMARY

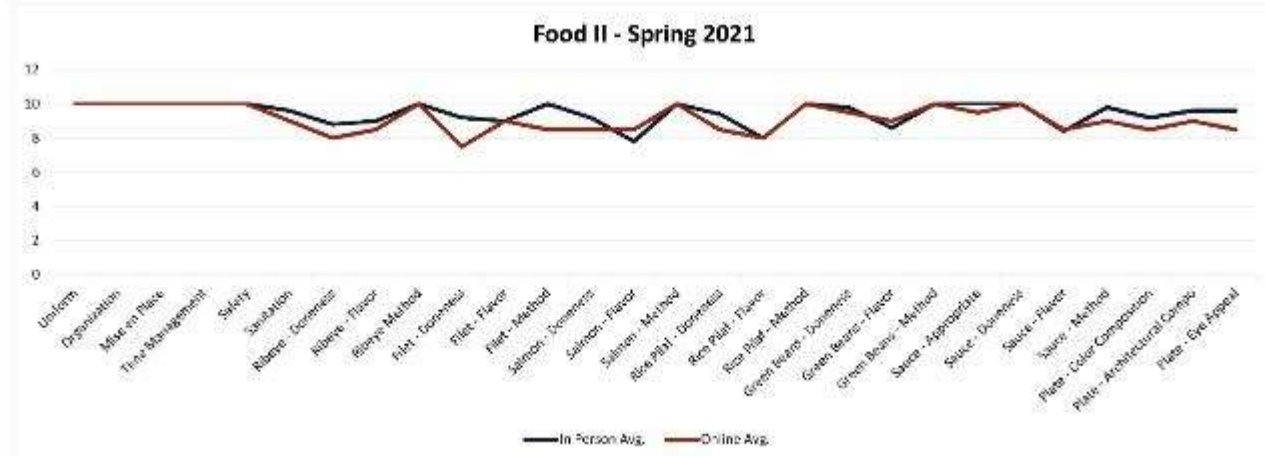
### CUL 1302 Food Production I – Final Practical Exam Fall 2020

		Uniform	Organization	Mise en Place	Time Management	Safety	Sanitation	Dice - Technique	Dice - Uniform	Rondelle - Technique	Rondelle - Uniform	Lozenge - Technique	Lozenge - Uniform	Citrus Segment - Technique	Citrus Segment - Uniform	Batonnet - Technique	Batonnet - Uniform	Med Dice - Technique	Med Dice - Uniform	Tourne - Technique	Tourne - Uniform
1 (online)		10	10	10	10	10	10	9	9	9.5	10	9.5	9.5	8.5	9.5	9.5	9	9.5	9	7.5	5.5
	2	9.5	10	10	10	10	10	8.5	9	8.5	7.5	8.5	8.5	9.5	8.5	9.5	9.5	9.5	8	8	5.5
	3	9.5	9.5	9.5	10	8	10	7.5	7.5	7.5	8	8.5	8	8	9.5	7.5	8.5	8	7.5	6	5
4 (online)		10	10	10	10	10	10	9.5	9.5	9.5	9.5	9.5	9.5	9.5	8.5	9.5	9	9.5	9	9.5	8.5
	5	9.5	9.5	9.5	10	10	10	8	8	6.5	7	7.5	9	7.5	8	7.5	7.5	7	7	6	5
6 (online)		8	9	9.5	9.5	7	10	6	7.5	6.5	7	6.5	7	6	4.5	6	3.5	6.5	5.5	6.5	5
In Person Avg.		9.5	9.7	9.7	10	9.3	10	8	8.2	7.5	7.5	8.2	8.5	8.3	8.7	8.2	8.5	8.2	7.5	6.7	5.2
Online Avg.		9.3	9.7	9.8	9.8	9	10	8.2	8.7	8.5	8.8	8.5	8.7	8	7.5	8.3	7.2	8.5	7.8	7.8	6.3



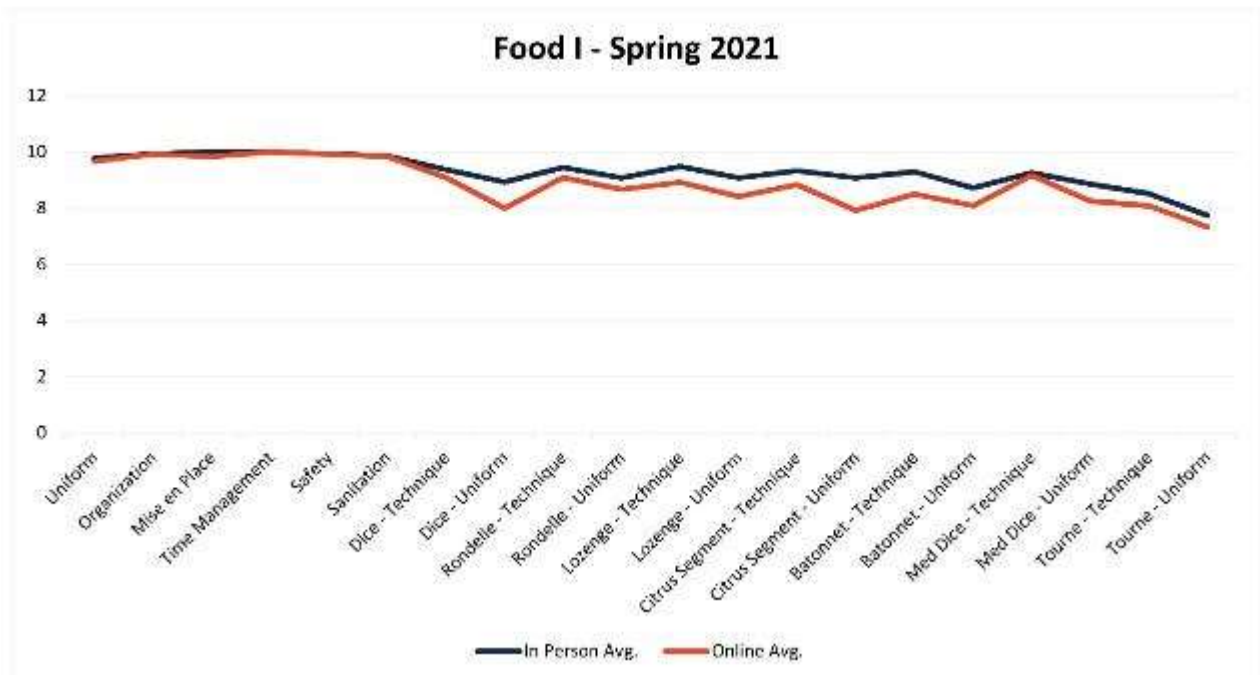
CUL 1303 Food Production II – Final Practical Exam Spring 2021

		Predict	Organizing	Micro-Plan	Time Management	Safety	Satisfaction	Work - Jobness	Work - Flow	Work - Method	Life - Content	Life - Flow	Life - Method	Selfness - Jobness	Selfness - Flow	Selfness - Method	Selfness - Demand	Selfness - Flow	Selfness - Method	Mean Brain - Demand	Mean Brain - Flow	Mean Brain - Method	Space - Spaceflow	Space - Demand	Space - Flow	Space - Method	Pre-color Perception	Pre-technical Change	Pre-type Appeal
1 (online);		10	10	10	10	10	10	6	9	10	5	8	7	8	8	10	9	7	10	9	9	10	9	10	7	10	8	8	8
	2	10	10	10	10	10	10	9	9	10	9	8	10	9	7	10	10	7	10	10	8	10	10	10	7	9	8	9	9
	3	10	10	10	10	10	10	10	10	10	10	9	10	10	8	10	9	9	10	10	10	10	10	10	10	10	10	10	10
	4	10	10	10	10	10	10	7	10	10	10	10	10	9	7	10	10	8	10	10	8	10	10	10	10	10	10	10	10
5 (online);		10	10	10	10	10	8	10	8	10	10	10	10	9	9	10	8	9	10	10	9	10	10	10	10	8	9	10	9
	6	10	10	10	10	10	8	9	8	10	8	9	10	10	9	10	8	7	10	9	8	10	10	10	7	10	9	9	9
	7	10	10	10	10	10	10	9	8	10	9	9	10	8	8	10	10	9	10	10	9	10	10	10	8	10	10	10	10
In Person Avg.		10	10	10	10	10	9.6	8.8	9	10	9.2	9	10	9.2	7.8	10	9.4	8	10	9.8	8.6	10	10	10	8.4	9.8	9.2	9.6	9.6
Online Avg.		10	10	10	10	10	9	8	8.5	10	7.5	9	8.5	8.5	8.5	10	8.5	8	10	9.5	9	10	9.5	10	8.5	9	8.5	9	8.5



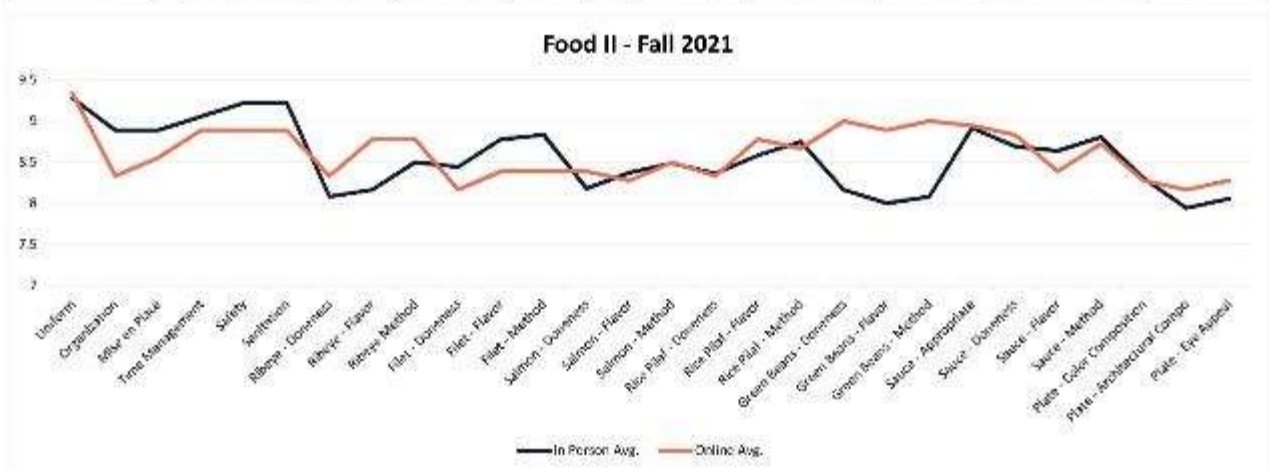
# CUL 1302 Food Production I – Final Practical Exam Spring 2021

		Uniform	Organization	Mise en Place	Time Management	Safety	Sanitation	Dice - Technique	Dice - Uniform	Rondelle - Technique	Rondelle - Uniform	Lozenge - Technique	Lozenge - Uniform	Citrus Segment - Technique	Citrus Segment - Uniform	Batonnet - Technique	Batonnet - Uniform	Med Dice - Technique	Med Dice - Uniform	Tourne - Technique	Tourne - Uniform
1 (online)	2	10	9.7	10	10	10	10	9	7.3	9	8.3	9	9	9	7.7	9	8.3	9.7	8.7	9.3	8.3
	3	10	10	10	10	10	10	9.7	9.3	9	9.3	9.7	9.3	9.3	8.7	9.7	9.3	9	8.7	8.3	7
	4	10	10	10	10	10	10	10	10	10	10	10	10	10	9.7	10	10	10	10	9.3	8
5 (online)	5	10	10	10	10	10	10	9	8.3	9.7	9	9.3	9.3	9.3	9.3	9.7	9	9	8.3	8.7	7
	6	10	10	10	10	10	10	9	7.7	8.3	9.3	8.7	9.7	10	10	8.7	9.3	10	10	9	9.7
	7	9	10	10	10	10	10	9.3	9	9.3	8	9	8	9	9	9	8.7	9	8.7	8.7	9
	8	10	10	10	10	10	10	9.7	9.3	9	9	9.7	9.3	9.3	9	9.7	7.2	9	8.3	9.3	9
	9	10	9.7	10	10	10	9.7	9.7	9	9	9	9.7	9.7	9.3	9.3	9	9	9	8.7	9.3	9
9 (online)	10	9	10	9.3	10	9.7	9.7	9	8.3	9.7	8.3	8.7	7	8	6.7	8	7.3	8	6.3	7	5.7
	11	9.3	9.7	10	10	9.7	9.7	8.7	8	9	8.3	9	8	9	8.3	9	8.3	8.7	7.7	6.7	5.3
11 (online)	12	9.7	10	10	10	10	9.7	9.3	8.7	9.3	8.7	9.3	8	8.3	7.3	8.3	7.3	9	8	7	5.7
	13	9.7	10	10	10	10	10	8.7	8	10	9.3	9	8.3	9	8.7	9	8.3	10	9.7	8.3	7.7
	14	10	10	10	10	10	9.7	9.7	9.3	10	9.7	10	9.7	9.7	9.3	9	8.7	9.7	9.7	8	7.7
In Person Avg.		9.8	9.9	10	10	9.9	9.9	9.4	8.9	9.4	9.1	9.5	9.1	9.3	9.1	9.3	8.7	9.3	8.9	8.5	7.7
Online Avg.		9.7	9.9	9.8	10	9.9	9.8	9.1	8	9.1	8.7	8.9	8.4	8.8	7.9	8.5	8.1	9.2	8.3	8.1	7.3



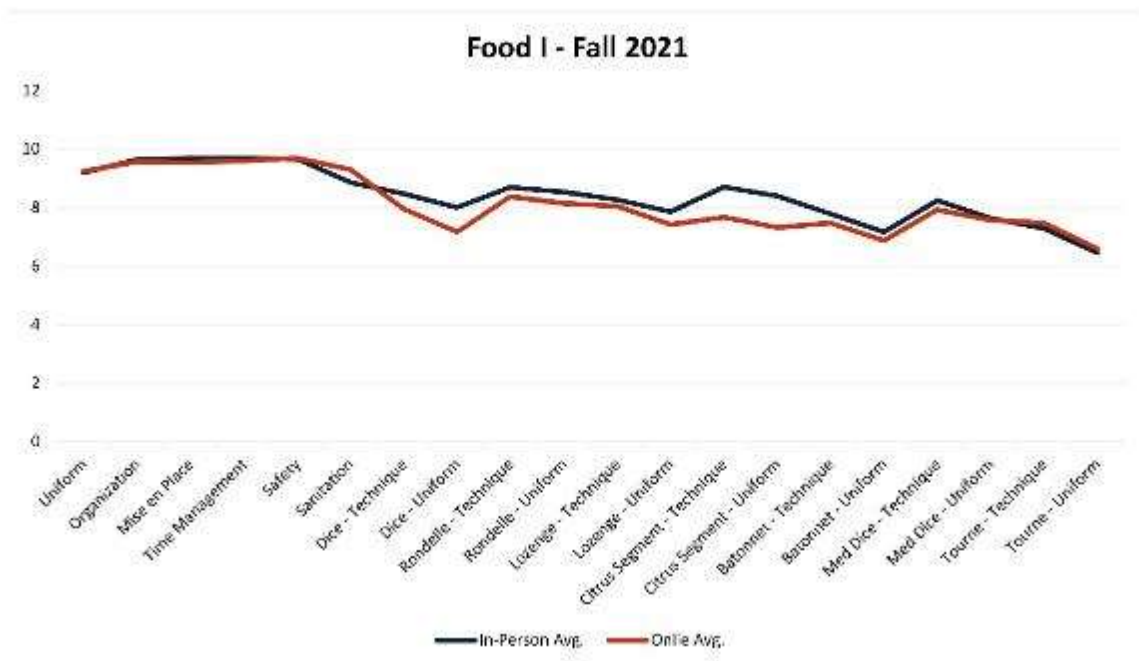
## CUL 1303 Food Production II – Final Practical Exam Fall 2021

		Uniform	Organization	Menu Plan	Time Management	Safety	Sanitation	Guest Service	Staging Prep	Recipe Method	Meat Doneness	Meat Flavor	Meat Method	Salmon Doneness	Salmon Flavor	Salmon Method	Rice Pilaf Doneness	Rice Pilaf Flavor	Rice Pilaf Method	Green Beans Doneness	Green Beans Flavor	Green Beans Method	Sauce Appropriate	Sauce Doneness	Sauce Flavor	Sauce Method	Plate Color Composition	Plate Architectural Caring	Plate Eye Appeal	
7 (online)	1	9.3	8.7	8.7	8.7	9	9	7.7	7.7	8.3	9	9	9.3	7.5	8.3	8.2	7	7.3	7.7	7.5	8	8	9	9	9	9	8.2	7.5	8.2	
	2	8.7	8.7	8.7	8.7	9.3	9.3	7.7	6.8	7.5	7.5	7.8	8.2	7.5	8	7.7	8	9	9	8.5	9	8.7	8.7	8.7	8.7	8	7.5	7.2		
	3	9.3	9.2	9.2	9.2	9.3	9.3	7.7	8	8	8.7	8.8	8.5	7.8	7.8	7.8	8.5	8.5	8.3	9.5	8.5	8.5	9	8.7	8.7	9	8	8.7	8.3	
	4	9.7	9	9	9.3	9.3	9.3	8.3	9	9.3	8.8	8.8	8.8	8.3	8.3	9.3	9.2	8.8	9.2	8	8	8	8.8	9.2	8.8	8.8	8.2	7.5	7.5	
	5	9.2	8.8	8.8	9.2	9.3	9.3	8.7	8	8.7	8.7	9	9	9	8.7	9	9	8.7	9	9	7.5	7.5	7.5	8.8	7.5	7.5	8.2	8.7	8.3	8.7
	6	9.3	9	9	9.3	9.3	9.3	8.8	9.5	9.2	8.5	9.2	9.2	9	9	9	8.8	8.8	9.2	7.5	7.5	7.5	9.2	9.2	9.2	9.2	8.8	8.2	8.5	
	7 (online)	8.7	8.3	8.7	9.3	9	9	9.2	9.5	9.5	9.5	9.5	9.2	9	8.7	9	9	9	9	9	9	8.7	9	9.7	9.3	9	9.3	9	9	9.3
	8 (online)	9.7	8.3	8.7	9	8.7	9	9.5	9.5	9.5	7.8	8.8	8.5	8.7	8.3	8.7	8.7	8.7	8.7	9.5	9.5	9.5	9	9	9	9	8.3	8.3	8.3	
	9 (online)	8.7	8.3	8.3	8.3	9	8.7	6.3	7.3	7.3	7.2	6.8	7.5	7.5	7.8	7.8	7.3	8.7	8.3	8.5	8.5	8.5	8.2	8.2	7.2	7.8	7.5	7.2	7.2	
In Person Avg.	9.3	8.9	8.9	9.1	9.2	9.2	8.1	8.2	8.5	8.4	8.8	8.8	8.2	8.4	8.5	8.4	8.6	8.6	8.2	8	8.1	8.9	8.7	8.6	8.8	8.3	7.9	8.1		
Online Avg.	9.3	8.3	8.6	8.9	8.9	8.9	8.3	8.8	8.8	8.2	8.4	8.4	8.4	8.3	8.5	8.3	8.8	8.7	9	8.9	9	8.9	8.8	8.4	8.7	8.3	8.2	8.3		



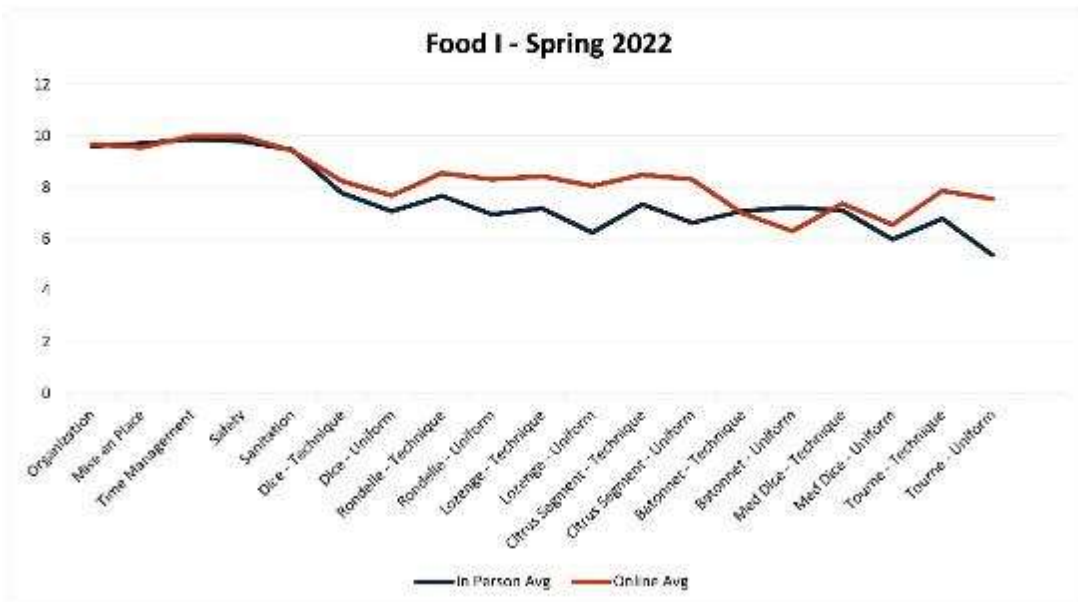
# CUL 1302 Food Production I – Final Practical Exam Fall 2021

		Uniform	Organization	Mise en Place	Time Management	Safety	Sanitation	Dice - Technique	Dice - Uniform	Rondelle - Technique	Rondelle - Uniform	Lozenge - Technique	Lozenge - Uniform	Citrus Segment - Technique	Citrus Segment - Uniform	Batonnet - Technique	Batonnet - Uniform	Med Dice - Technique	Med Dice - Uniform	Tourne - Technique	Tourne - Uniform
1 (online)		9.5	9.8	9.8	9.8	9.8	9.8	8.4	7.8	8.1	7.6	8.1	6.4	8.1	8.8	8.4	8.1	7.9	8	7.6	7
2		9	9.8	9.8	9.8	9.8	9.8	8.9	8.6	8.9	8.3	8.4	7.6	8.6	8.3	8.4	7.5	8.4	7.9	7.6	7.1
3 (online)		9.5	9.8	9.8	9.8	9.8	9.8	7.9	7.1	8	8.3	7.4	7.1	6.8	6.5	6.3	6	8.3	8.4	7	6
4 (online)		9.5	9.8	9.8	9.8	9.8	9.8	8.5	7.5	8.8	8.1	8	7.8	8.3	7.8	8.6	7.6	9	9	7.3	6
5		9.5	9.8	9.8	9.8	9.8	9	8.8	8	9	8.8	8.8	8.8	9.3	9	8	6.9	8.3	7.5	7	6.4
6		9.5	9.8	9.8	9.8	9.8	8.8	8.5	7.8	9	8.8	8.3	7.3	9	8.8	7	6	8.3	7.3	7.3	6.5
7		9.3	9.5	9.5	9.5	9.5	8.5	7.3	6.5	7.9	8.4	7.3	6.8	8.8	9.3	6	5.5	7.8	7.9	7	5.5
8		9.3	9.5	9.5	9.5	9.5	8.5	8.3	7.3	8.3	7.6	7.8	7	7.5	5	7.8	6.9	8	7.1	7.8	6.6
9		9.5	9.8	9.8	9.8	9.8	8.8	8.5	8	9.3	9.1	9.5	9.1	9	8.8	9	8.9	9.3	9	8.5	7.8
10		9.5	9.8	9.8	9.8	9.8	8.8	9.1	8.5	8.9	8.1	8.6	7.9	8.4	7.9	8.6	8.8	8.6	7.8	7.6	6.6
11		9.5	9.8	9.8	9.8	9.8	9	7.8	7.3	8.5	8.9	8.4	8.4	8.5	8.4	8.3	7.3	7.8	7.3	5.8	4.3
12		9.8	10	10	10	10	9	9.5	9.3	9.5	9.5	9.3	9	9.5	9.5	9.5	9.5	9.5	9.3	9.3	9.3
15 (online)		9.3	9.6	9.8	9.5	9.8	8.8	7.1	6.4	8.4	8.4	8.9	9	8.1	7.4	8.5	8.6	8.6	8.3	7.9	6.9
16 (online)		8.5	9	8.8	9.3	9.5	8.5	7.9	7.1	8.4	8.4	7.9	6.9	7.1	6.3	5.6	4	5.9	4.3	7.6	7.1
17		9	9	9.5	9.5	9.5	9.1	8.4	8	8.3	8.6	6.6	6	8.5	8.9	5	4.3	7.5	7	4.5	3.3
19		9.4	9.8	9.8	9.8	9.8	8.8	8.4	8.6	8.8	8.5	8.5	8.8	9	8.8	8	7.1	7.9	7.1	8	7.3
20		7.3	9.5	9.5	9.5	9.3	8.5	8.5	8.4	8.3	7.9	8	7.9	8.5	8.5	8	7.5	7.9	6.8	7.3	7
In-Person Avg.		9.2	9.6	9.7	9.7	9.7	8.9	8.5	8	8.7	8.5	8.3	7.9	8.7	8.4	7.8	7.2	8.3	7.6	7.3	6.5
Online Avg.		9.3	9.6	9.6	9.6	9.7	9.3	8	7.2	8.4	8.2	8.1	7.4	7.7	7.3	7.5	6.9	7.9	7.6	7.5	6.6

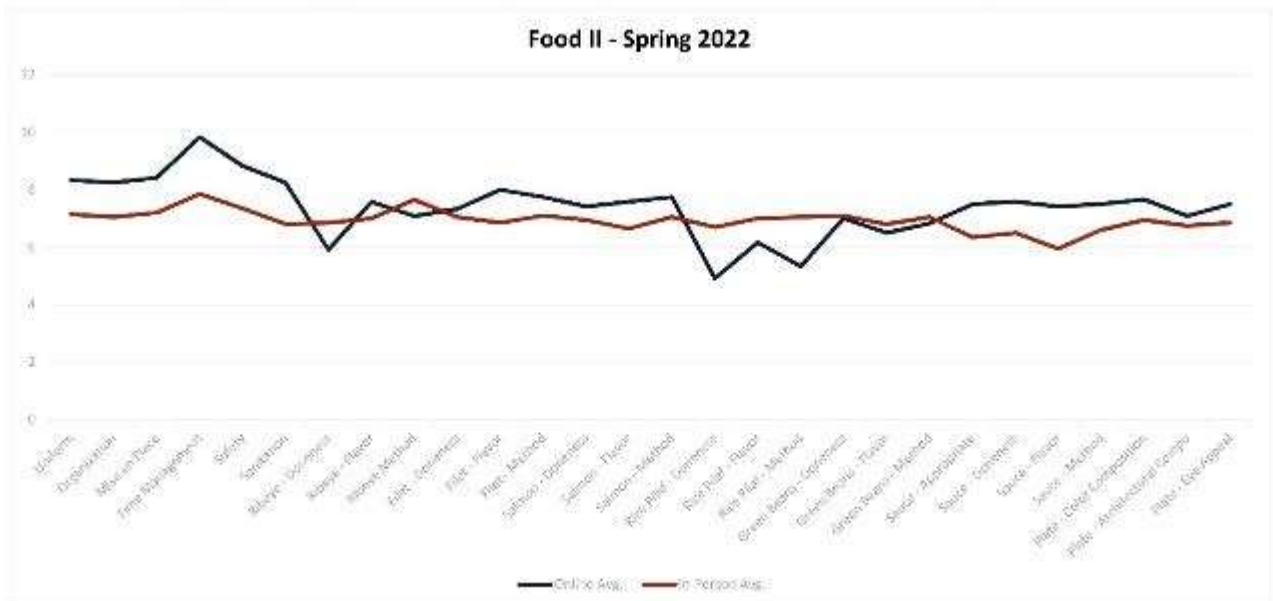


## CUL 1302 Food Production I – Final Practical Exam Spring 2022

		Uniform	Organization	Mise en Place	Time Management	Safety	Sanitation	Dice - Technique	Dice - Uniform	Rondelle - Technique	Rondelle - Uniform	Lozange - Technique	Lozange - Uniform	Citrus Segment - Technique	Citrus Segment - Uniform	Batonnet - Technique	Batonnet - Uniform	Med Dice - Technique	Med Dice - Uniform	Traverse - Technique	Traverse - Uniform
1		10	9.8	10	10	9.8	10	6.8	5.3	5.3	4.5	4.8	4	5.3	5.8	5.8	5.8	5.8	5	5.3	4.5
2		10	9.8	10	10	10	10	8.3	7.3	8	7.3	7.5	6.3	5.8	4	7.8	7	8.3	8	6.8	4.5
3		9.3	9.3	10	10	10	10	7	6.3	7.3	6.5	7.3	6	7.3	6.3	5.8	4.8	6.5	5.5	6.3	4
4	5 (online)	10	10	10	10	10	10	8.5	8.3	8.5	8	8	7.3	8	7.8	8	7.5	8	7.3	7.8	7.3
5		9	9.3	10	10	10	10	8.8	8	8.5	8.5	8.3	7.8	8.8	9	6.5	5.5	7.5	6.3	8	7.8
6		8.8	10	10	10	10	10	8	7.5	7	6.5	8	7.8	7.5	6.5	8	7.3	7	5.8	6.8	5.8
7		10	10	10	10	10	10	8	7.8	7.5	7.5	8.5	7.5	8.3	7.8	7.3	6.3	7.3	6.5	7.3	6.8
8		7.8	9.3	9.5	9.5	9.5	9.5	7.8	7.5	8	7.5	8.5	6.8	9.5	9.8	8	7.8	8.3	7.8	7.8	6.8
9		7.5	9.5	9.5	9.5	9.5	9.5	7.3	6.5	7.8	6.8	8.3	7.3	7	5.8	7.3	6.3	7	5.5	6.5	4.3
10		10	9.8	10	10	10	9	7.3	7.5	7	5	8.3	7.5	7	5.3	7.5	6.3	7.5	6.3	7.3	5.5
11		10	10	10	10	10	10	8	7.8	8	7.3	7.8	6.5	7.3	6.3	8	7.8	7.8	7.3	7	5.5
12		10	10	10	10	10	10	8.3	7.8	7	6.5	8.3	8	8.8	8.5	7.8	7	6.5	5.3	7.8	7.3
13 (online)		10	10	10	10	10	9.5	8.5	7.8	8.3	7.8	8.5	8.5	8.8	8.3	8.3	7.5	7.3	6.5	8	7.3
14 (online)		10	9.5	8.3	10	10	8.3	7.8	7.3	9	9	8.8	8.3	8	7.3	7	6.3	7.3	6.5	8	8
15		9	10	10	10	10	9.3	8.3	7.5	9	8.5	9	9	9.3	9	8.5	8.5	8.5	7.8	8.3	7.5
16		10	10	10	10	10	9.5	8.3	7.5	8.8	9.3	8.8	8.8	8.8	9.3	9	8.5	8.5	7	8	6.5
17		5.5	7.8	7	8.8	8.5	6.8	6	4.8	7.3	5.8	3	2.5	3	0.5	5	2.3	5	2.3	2.8	1.3
18 (online)		8.8	10	10	10	10	10	8	7.8	8.5	8	8.3	7.8	8.5	8.8	6.3	6	7.5	7	7.5	7.3
19		7.8	8.3	8.5	10	9	9	8	7	6	4.8	2	0.5	4.8	4.5	4.5	2	4.5	2.3	5.5	3.3
20		10	10	10	10	10	9.5	8.3	7.3	9.3	9	8.8	7.3	9.5	10	6.8	6	7.5	6.5	7.3	6
21		7.5	9.8	10	10	10	10	8	6.5	7.5	7	3.5	1	7.5	6.3	6.8	26	6	4	6.8	5
22		10	10	10	10	10	8.3	8.8	8.3	8.8	7.8	8.8	8.3	8.3	7.5	6	4.8	8.5	8	7.3	5.5
23		9.5	10	10	10	10	9.5	7.5	6.5	8	7	8	6.8	7.3	5.5	7.3	6	7	6	7	5.3
In Person Avg		9.1	9.6	9.7	9.9	9.8	9.5	7.8	7.1	7.7	7	7.2	6.3	7.4	6.6	7.1	7.2	7.1	6	6.8	5.4
Online Avg		9.4	9.7	9.6	10	10	9.4	8.3	7.7	8.6	8.3	8.4	8.1	8.5	8.3	7	6.3	7.4	6.6	7.9	7.6



CUL 1303 Food Production II – Final Practical Exam Spring 2022

[illegible]

## APPENDIX N: AMS COURSE EVALUATIONS

Fall 2020 - Food I

Responses/Expected	In-person				Online
	J01 3 of 10	J02 2 of 8	J04 1 of 7	J05 2 of 10	K01 3 of 11
<b>Q2. The instructors presentations are well-organized and clear.</b>	5	5	5	5	5
<b>Q3. The instructor clearly stated the objectives and expectations for this course.</b>	5	5	5	5	5
<b>Q4. The instructor is responsive and helpful to students.</b>	5	5	5	5	4.7
<b>Q5. The instructor encourages students to participate in class discussions and ask questions.</b>	5	5	5	5	4.7
<b>Q6. The instructor demonstrates a good knowledge of the subject matter being taught.</b>	5	5	5	5	5
<b>Q7. The instructor provides timely information concerning progress and grades.</b>	5	5	5	5	5
<b>Q13. The instructor is willing to give help outside class.</b>	5	5	4	5	4.7

**What did you like about your instructor and/or this course?**

(J01) 2/3 Responses (66.7% response rate)

(J01) 1.

I liked that Chef H would go out of his way if I asked a question to explain in detail and go in depth so I could better understand.

(J01) 2.

He was very good with instruction and demonstrations on how to do certain cuts.

(J02) 2/2 Responses (100% response rate)

(J02) 1.

-

(J02) 2.

I liked his willingness to extend assignment completion dates late in the semester. I liked his enthusiasm during each class. I liked the fact that he was easy to reach when questions in the course came up. I liked his honesty about the industry and what challenges we were up against. I liked that he corrected or advised during knife cuts in class.

(J04) 1/1 Responses (100% response rate)

(J04) 1.

His ability to make any given situation a humorous one.

(K01) 2/3 Responses (66.7% response rate)

(K01) 1.

-

(K01) 2.

Chef H is very professional and brings respect to the profession. His online video instructions are well done and shows his passion for teaching.

**How can your instructor improve instruction and/or this course?**

(J01) 1/3 Responses (33.3% response rate)

(J01) 1.

I think this class was amazing; I don't see anything I would change.

(J02) 2/2 Responses (100% response rate)

(J02) 1.

-

(J02) 2.

If possible, I would designate a separate time apart from lab where students were required to practice knife cuts for at least an hour on campus weekly. Not necessarily supervised but on your uown at a specific time and place. If this were not an option, I would cut down on lab lecture demo and instruction and use as much of the lab as possible to make students practice cuts. Lab fees for product could be increased of students could bring their own product. In a perfect world, the could would meet at least twice a week.

(K01) 3/3 Responses (100% response rate)

(K01) 1.

-

(K01) 2.

-

(K01) 3.

I enrolled in the online class, the only improvement recommended is to bring the knife skills and other labs into the classroom (i.e. make this a hybrid class.)

**Spring 2021 - Food I**

	<b>In-person</b>			<b>Online</b>
	<b>J01</b>	<b>J02</b>	<b>J03</b>	<b>W01</b>
<b>Responses/Expected</b>	2 of 9	1 of 8	1 of 7	4 of 13
<b>Q2. The instructors presentations are well-organized and clear.</b>	5	5	5	4.8
<b>Q3. The instructor clearly stated the objectives and expectations for this course.</b>	5	5	5	5
<b>Q4. The instructor is responsive and helpful to students.</b>	5	5	5	4.8
<b>Q5. The instructor encourages students to participate in class discussions and ask questions.</b>	5	5	5	4.5

<b>Q6. The instructor demonstrates a good knowledge of the subject matter being taught.</b>	5	5	5	5
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<b>Q7. The instructor provides timely information concerning progress and grades.</b>	5	5	5	4.5
---	---	---	---	-----

<b>Q13. The instructor is willing to give help outside class.</b>	5	5	4	4.8
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**What did you like about your instructor and/or this course?**

(J01) 2/2 Responses (100% response rate)

(J01) 1.	Instructor was very willing to answer questions and provide additional guidance when asked.
----------	---

(J01) 2.	Chef H is very intelligent, and not just about culinary arts; very approachable, easy to understand, very high on Chef H, all around good.
----------	--

(J02) 1/1 Responses (100% response rate)

(J02) 1.	I enjoyed hearing about his experiences as a chef. I liked the labs he showed us on Blackboard and then showed us in person.
----------	--

(J03) 2/2 Responses (100% response rate)

(J03) 1.	The hands on experience and pushing students to dig deep to find their potential.
----------	---

(J03) 2.	Chef H is a great instructor. He provides extra help when needed and is full of helpful information!
----------	--

(W01) 4/4 Responses (100% response rate)

(W01) 1.	-
----------	---

(W01) 2.	I really enjoyed this class. I believe I got a bit more from the learning because I made an effort to pick up my lab materials. Because of this I was able to actually meet with Chef Hall and ask questions if I had any in person. This was really helpful to me.
----------	---

(W01) 3.	-
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(W01) 4.	Chef H is the best! He is funny, helpful, and available. I like how he breaks down things to make it easier to understand. He is also available for tutoring if you really feel like you need it. You can always count on Chef to have the assignments open at the beginning of each week to ensure that everyone knows what is expected of them. I really can't say enough nice things about him. He's super cool and super chill, which I admire.
----------	---

**How can your instructor improve instruction and/or this course?**

(J01) 1/2 Responses (50% response rate)

(J01) 1.	I don't think it can be done
----------	------------------------------

(J02) 1/1 Responses (100% response rate)

(J02) 1. I don't see where he could improve. He was excellent.

(J03) 2/2 Responses (100% response rate)

(J03) 1. no complaints

(J03) 2. No improvements needed.

(W01) 3/4 Responses (75% response rate)

(W01) 1. Input more videos and instructions on difficult cuts.

(W01) 2. -

(W01) 3. Although taking the class online is convenient, I think it would be very beneficial to have to log on at least once a week for class, have cameras on and receive instruction that way. I would have liked to have done it that way as well, especially for the exams.

#### Fall 2021 - Food I

*Chef T*

	In-person			Online	
	J01	J02	J03	J04	W01
Responses/Expected	4 of 9	3 of 8	2 of 8	2 of 9	5 of 20
<b>Q2. The instructors presentations are well-organized and clear.</b>	4.5	4.7	4.5	5	4.8
<b>Q3. The instructor clearly stated the objectives and expectations for this course.</b>	5	5	4.5	5	4.8
<b>Q4. The instructor is responsive and helpful to students.</b>	4.5	5	4	5	4.6
<b>Q5. The instructor encourages students to participate in class discussions and ask questions.</b>	5	4.7	5	5	4.8
<b>Q6. The instructor demonstrates a good knowledge of the subject matter being taught.</b>	4.8	5	4.5	5	4.8
<b>Q7. The instructor provides timely information concerning progress and grades.</b>	4.5	4.7	4.5	5	4.8
<b>Q13. The instructor is willing to give help outside class.</b>	4.3	5	3.5	5	4.8

#### What did you like about your instructor and/or this course?

(J01) 4/4 Responses (100% response rate)

(J01) 1. He worked with you and explained things.

(J01) 2.	My instructor was very understanding and fast with responding to my emails. Whenever he gave his presentations he always added in humor and made the day better.
(J01) 3.	He was super fun to learn under; he was very professional and knew the material well.
(J01) 4.	He is very helpful.
(J02) 3/3 Responses (100% response rate)	
(J02) 1.	His straight forward attitude and honesty about the class, his instruction was maganificant and he never failed to correct us when we were wrong, he taught us with utmost professionalism and did his job to the best of his ability
(J02) 2.	He did not create a high stress learning environment
(J02) 3.	Chef H was very friendly and informative. The class was well structured and easy to understand/follow.
(J03) 1/2 Responses (50% response rate)	
(J03) 1.	I like how he would let us prepare different types of dishes
(J04) 2/2 Responses (100% response rate)	
(J04) 1.	He made class not feel like class, answered any question, open to any topic
(J04) 2.	I think that Chef T was a wonderful teacher. He encouraged me and all of his students. He helped me stop into my full potential and helped me with my professionalism. He was relatable and informative.
(W01) 5/5 Responses (100% response rate)	
(W01) 1.	He gives great advice.
(W01) 2.	Was an extremely enjoyable class and even though it was online, I felt I learned just as well than I would have on campus.
(W01) 3.	Love the online feedback and ZOOM classes.
(W01) 4.	Learning the different methods of cleaning and agencies that enforce them.
(W01) 5.	He was an incredible teacher to have. I have learned so much from him and would recommend to anyone that takes his class.

**How can your instructor improve instruction and/or this course?**

(J01) 4/4 Responses (100% response rate)	
(J01) 1.	I enjoyed it
(J01) 2.	I wish there was more cooking in the class
(J01) 3.	I have no comments, he did fantastic
(J01) 4.	He is doing fine
(J02) 3/3 Responses (100% response rate)	
(J02) 1.	N/A
(J02) 2.	He could give more exact instruction

(J02) 3.	Food Production I serves its purpose and I cannot think of any major ways to improve the class.
(J03) 1/2 Responses (50% response rate)	
(J03) 1.	I think he could improve more by not getting a little irritated at questions.
(J04) 2/2 Responses (100% response rate)	
(J04) 1.	Keep a bit more structure with due dates
(J04) 2.	I don't know how he could do any better. I've worked in the industry for 20 years and he knew what he was teaching us and was outstanding.
(W01) 4/5 Responses (80% response rate)	
(W01) 1.	by giving us clear directions
(W01) 2.	We should cook more together
(W01) 3.	The online class was great, but get rid of old messages from previous courses on the Assignment page.
(W01) 4.	I think he did an amazing job.

#### Spring 2022 - Food I

	In-person			Online
	K01	K02	K03	W01
Responses/Expected	2 of 14	3 of 7	6 of 12	1 of 6
<b>Q2. The instructors presentations are well-organized and clear.</b>	4.5	4	5	5
<b>Q3. The instructor clearly stated the objectives and expectations for this course.</b>	4.5	4	5	5
<b>Q4. The instructor is responsive and helpful to students.</b>	5	4	5	5
<b>Q5. The instructor encourages students to participate in class discussions and ask questions.</b>	5	4	5	5
<b>Q6. The instructor demonstrates a good knowledge of the subject matter being taught.</b>	5	4	5	5
<b>Q7. The instructor provides timely information concerning progress and grades.</b>	4.5	4	5	5
<b>Q13. The instructor is willing to give help outside class.</b>	4.5	4	5	5
<b>What did you like about your instructor and/or this course?</b>				
(K01) 2/2 Responses (100% response rate)				

- (K01) 1. I liked the natural discussions that happened among Chef H and everyone in the class.
- (K01) 2. Chef H is profoundly amazing at his craft! From his in-your-face personality to the broad range of information tucked inside his mind that he just willingly gives us is awesome. I cannot wait to take every class that he teaches. You know he cares about his work and about you learning it, to the best of your abilities. Great man!
- (K02) 2/3 Responses (66.7% response rate)
- (K02) 1. Very clear instruction. Makes everything easy to approach and not intimidating. I feel like the objectives for the course have been achieved.
- (K02) 2. I like the feedback I would get.
- (K03) 6/6 Responses (100% response rate)
- (K03) 1. how teach
- (K03) 2. he is very smart!1
- (K03) 3. What I like about this course was to the in and outs of the industry, how to be a professional chef and learned how the kitchen works. I also got to learn the basics of being a chef and how to cope with it.
- (K03) 4. Chef H was very personable, easy going, great to work with.
- (K03) 5. Chef H is very clear and forward with his instructions. He can inspire a new student to develop appreciation of the culinary arts. His dedication, patience in helping a student acquiring a new skill is excellent. It was a pleasure to be in his class.
- (K03) 6. Always helpful when you need help with an assignment.
- (W01) 1/1 Responses (100% response rate)
- (W01) 1. Chef H interacted so well with us. He was not judgmental or critical. He is so personally connected to his students and genuinely cares. He has a heart of gold.

**How can your instructor improve instruction and/or this course?**

- (K01) 2/2 Responses (100% response rate)
- (K01) 1. You can't improve PERFECTION!
- (K01) 2. I think Chef H being a little more in-depth when explaining the coursework would improve participation and understanding in the class overall.
- (K02) 2/3 Responses (66.7% response rate)
- (K02) 1. He could be a little less tuff.
- (K02) 2. Cutting the lab time down to 4 hours works for general instruction. I wonder how much was missed by the trim down.
- (K03) 5/6 Responses (83.3% response rate)
- (K03) 1. yes all the time
- (K03) 2. just more hands on
- (K03) 3. No improvement necessary

(K03) 4. No improvement needed

(W01) 1/1 Responses (100% response rate)

(W01) 1. I know there is always room for "improvement", however, I cannot think of one thing that I would want changed.

## Spring 2021 - Food II

*Chef M*

	<b>In-Person</b>	<b>Online</b>
	<b>J01</b>	<b>W01</b>
<b>Responses/Expected</b>	<b>4 of 7</b>	<b>4 of 7</b>
<b>Q2. The instructors presentations are well-organized and clear.</b>	5	5
<b>Q3. The instructor clearly stated the objectives and expectations for this course.</b>	5	4.8
<b>Q4. The instructor is responsive and helpful to students.</b>	5	4.8
<b>Q5. The instructor encourages students to participate in class discussions and ask questions.</b>	5	4.3
<b>Q6. The instructor demonstrates a good knowledge of the subject matter being taught.</b>	5	4.5
<b>Q7. The instructor provides timely information concerning progress and grades.</b>	5	4.3
<b>Q13. The instructor is willing to give help outside class.</b>	4.5	4.5

## What did you like about your instructor and/or this course?

(J01) 2/4 Responses (50% response rate)

(J01) 1. Very hands on in the lab, and extremely knowledgeable.

(J01) 2. He would help guide me in a way that let me fully understand the dish I was making.

(W01) 4/4 Responses (100% response rate)

(W01) 1. everything

(W01) 2. Very thorough on class instruction.

(W01) 3. I enjoyed the class being able to attend online; Chef H made the course challenging and fun with his instructions, videos, and responses to my performance.

(W01) 4. He was very direct and detailed on what he wanted from us; he also gave good feedback.

**How can your instructor improve instruction and/or this course?**

(J01) 2/4 Responses (50% response rate)

(J01) 1. The instructor needs to make sure that everything is clean before anyone leaves for the day.

(J01) 2. No improvements necessary.

(W01) 4/4 Responses (100% response rate)

(W01) 1. nothing that I can think of.

(W01) 2. none

(W01) 3. The course is great; but the only thing that I have an issue with is that I don't know the correct answers to questions that I've missed. This is an issue with several of my online classes.

(W01) 4. Increase availability.

**Fall 2021 - Food II**

*Chef M*

	<b>In-Person J01</b>	<b>Online W01</b>
<b>Responses/Expected</b>	2 of 6	3 of 6
<b>Q2. The instructors presentations are well-organized and clear.</b>	4.5	5
<b>Q3. The instructor clearly stated the objectives and expectations for this course.</b>	5	5
<b>Q4. The instructor is responsive and helpful to students.</b>	4.5	5
<b>Q5. The instructor encourages students to participate in class discussions and ask questions.</b>	5	5
<b>Q6. The instructor demonstrates a good knowledge of the subject matter being taught.</b>	5	5
<b>Q7. The instructor provides timely information concerning progress and grades.</b>	4.5	4.7
<b>Q13. The instructor is willing to give help outside class.</b>	4.5	5

**What did you like about your instructor and/or this course?**

(J01) 2/2 Responses (100% response rate)

- (J01) 1. Chef gave is the ability to have experience cooking in today's food world. He challenged us to go outside of our textbook. We learned a lot from Chef.
- (J01) 2. Chef M is an excellent example of how you can get people to learn and work together. He encouraged me to be confident in my cooking even when I doubted myself.
- (W01) 3/3 Responses (100% response rate)
- (W01) 1. Very responsive and helpful. Chef offers a lot of constructive criticism and praise that gives you confidence to keep trying. He really harbors a safe place to learn and ask many questions. I am really shy, and Chef is so approachable that I feel like I can be myself. He should teach everyone online. He can do it!
- (W01) 2. The very informative ZOOM sessions concerning that week's assignment.
- (W01) 3. Instructor is approachable and answers any concerns I may have about the class in a timely manner. The course was a self explanatory with easy to follow instructions.

**How can your instructor improve instruction and/or this course?**

- (J01) 2/2 Responses (100% response rate)
- (J01) 1. No complaints
- (J01) 2. Check email more often.
- (W01) 3/3 Responses (100% response rate)
- (W01) 1. Nothing. I love the ZOOM meetings. That helps keep the class interesting and allows him to discuss the cooking for that week.
- (W01) 2. Nothing to improve.
- (W01) 3. Concerning online students, when picking up products to do assignments, the student needs to have a product checklist as well. This will keep down the possible confusion if carts get mixed up. Also, the students can already have an idea of what products they already have at home, resulting in having to make fewer trips to the school.

**Spring 2022 - Food II**

	<i>Chef M</i>		
	<b>In-person</b>		<b>Online</b>
	<b>K01</b>	<b>K03</b>	<b>W01</b>
Responses/Expected	3 of 9	3 of 8	3 of 5
<b>Q2. The instructors presentations are well-organized and clear.</b>	5	5	5
<b>Q3. The instructor clearly stated the objectives and expectations for this course.</b>	5	5	5
<b>Q4. The instructor is responsive and helpful to students.</b>	5	5	5

**Q5. The instructor encourages students to participate in class discussions and ask questions.**

5

5

5

**Q6. The instructor demonstrates a good knowledge of the subject matter being taught.**

5

5

5

**Q7. The instructor provides timely information concerning progress and grades.**

5

5

5

**Q13. The instructor is willing to give help outside class.**

5

5

5

**What did you like about your instructor and/or this course?**

(K01) 2/3 Responses (66.7% response rate)

(K01) 1.

I loved how he pushed us to break out of our comfortzone.

(K01) 2.

I like that he teaches not only how to make things, yet he has taught me how to fix things. I've been encouraged to think outside the box. To take risks and try different things.

(K03) 3/3 Responses (100% response rate)

(K03) 1.

He works with you and explains in detail.

(K03) 2.

He always pay attention to every student whenever he teaches.

(K03) 3.

Every class that I take with Chef H is such a pleasure and super fun. He is definitely my favorite. He is so knowledgable and he does a fantastic job of teaching. He keeps class fun and interesting.

(W01) 3/3 Responses (100% response rate)

(W01) 1.

The instructor was very firm but also flexible, and he knew when to be which. I really enjoyed the size of the class. It felt like everyone was comfortable asking questions and learning from each other as well as the instructor.

(W01) 2.

The attention to detail and thoroughness.

(W01) 3.

I love that he is knowledgable of this craft and is very dedicated to his work.

**How can your instructor improve instruction and/or this course?**

(K01) 2/3 Responses (66.7% response rate)

(K01) 1.

nothing, he's great

(K01) 2.

I don't think he can get better than he is. 10/10

(K03) 3/3 Responses (100% response rate)

(K03) 1.

In my opinion, he teaches perfectly and the course is very well crafted.

(K03) 2.

He needs to keep doing what he is doing. I like the way he teaches us.

(K03) 3.

-

(W01) 3/3 Responses (100% response rate)

(W01) 1.

There really isn't anything that I would recommend he improve upon. He did wonderful.

(W01) 2.

I enjoyed the classes when we were actually cooking together as opposed to the instruction and then be set loose. I feel like we learned more about what we were doing right or wrong when Chef was able to see us in action.

(W01) 3.

As of right now I have improvements to suggest.

## APPENDIX O: CULINARY ARTS EDUCATOR SURVEY SUMMARY

Based on the Definitions of Online Culinary Arts Modality Iterations, indicate the iterations through which an instructor could effectively teach (and a student could effectively learn) the topic, principle, technique, or method (as per the Postsecondary ACFEF AC Required Knowledge and Skill Competencies, a randomized selection of competencies are included here) [Select ALL that apply].

	Automated Online		Hybrid Online		Synchronous Online		Total
Discuss and evaluate the importance of professional ethics as it applies to the foodservice industry	60.87%	14	65.22%	15	69.57%	16	23
Outline the organization, structure and functional areas in various hospitality organizations as they pertain to the functions of menu planning, purchasing, food production and service, food and beverage controls, management, etc	47.83%	11	73.91%	17	69.57%	16	23
Identify and describe professional organizations associated with the hospitality and foodservice profession and discuss these organizations' roles in preparing and advancing one's career in the industry	65.22%	15	65.22%	15	65.22%	15	23
Examine the systematic job responsibilities of the various food service and hospitality positions	54.55%	12	68.18%	15	63.64%	14	22
Discuss the ingredients and equipment used in the preparation of different international cuisine	26.09%	6	69.57%	16	73.91%	17	23
Identify tools, equipment and products typically used in Garde Manger with emphasis on proper food handling, including safety, sanitation, and storage	43.48%	10	69.57%	16	73.91%	17	23
Identify cold soups and sauces used in the Garde Manger area of a foodservice establishment	52.17%	12	56.52%	13	73.91%	17	23
Define basic types of salad dressings and produce a variety of salad dressings including emulsified, dairy based, vinaigrette and coulis	39.13%	9	52.17%	12	86.96%	20	23
Explain the history and defining characteristics of the sandwich, as well as the most popular modern variations	60.87%	14	52.17%	12	69.57%	16	23
Describe the types of international items that can be used as hors d'oeuvres on a buffet line or as passed canapés	47.83%	11	65.22%	15	65.22%	15	23

Define the various types of forcemeats including sausage, pate, terrine and mousse	56.52%	13	52.17%	12	73.91%	17	23
Identify microorganisms that are related to food spoilage and food-borne illnesses and describe methods of prevention	60.87%	14	60.87%	14	65.22%	15	23
Outline the requirements for proper receiving of raw, read- to-eat, and non-food items	60.87%	14	60.87%	14	65.22%	15	23
Demonstrate appropriate emergency policies for kitchen and dining room injuries	34.78%	8	65.22%	15	73.91%	17	23
Outline the requirements for proper storage of raw, ready-to-eat, and non-food items	69.57%	16	60.87%	14	65.22%	15	23
Perform basic math functions to include fractions, decimals, weights, and measurements	52.17%	12	69.57%	16	65.22%	15	23
Convert recipes using a yield formula to increase and decrease quantities	43.48%	10	65.22%	15	73.91%	17	23
Discuss and explain the basic production process for distillation and fermentation	34.78%	8	60.87%	14	86.96%	20	23
Discuss and describe wines by grape and/or other fruit variety, country, growing region and production process	52.17%	12	69.57%	16	73.91%	17	23
Define Baking terminology and explain how to apply them	65.22%	15	60.87%	14	69.57%	16	23
Identify baking ingredients and explain their function in the formulation of baking and pastry recipes	52.17%	12	52.17%	12	73.91%	17	23
Describe the process of bread production with natural leavening agent to include the mixing methods	43.48%	10	56.52%	13	78.26%	18	23
Describe purchasing methods used in foodservice operations	56.52%	13	56.52%	13	65.22%	15	23
Discuss and analyze the importance of sanitation and HACCP procedures that affect receiving and issuing of goods in a foodservice operation	60.87%	14	60.87%	14	73.91%	17	23
Describe primary characteristics, functions and major food sources of major nutrients	69.57%	16	69.57%	16	60.87%	14	23
Interpret food labels in terms of the portion size, ingredients and nutritional value	63.64%	14	77.27%	17	63.64%	14	22
Describe the mechanics of proper table service as it pertains to American, English, Russian, French, and buffet service	43.48%	10	73.91%	17	65.22%	15	23

Discuss the rationale for a seasonal menu and analyze how it may affect the overall menu costs, food quality and availability	39.13%	9	<b>73.91%</b>	17	69.57%	16	23
Apply principles of nutrition when developing recipes and menu choices, including labeling laws that address allergies and raw food	47.83%	11	69.57%	16	<b>73.91%</b>	17	23
Discuss menu-planning resources to include internet, professional sources, vendors and foodservice associations	47.83%	11	<b>73.91%</b>	17	60.87%	14	23
Describe the supervisor's role in decision-making, problem solving and delegation of duties	56.52%	13	<b>65.22%</b>	15	60.87%	14	23
Define the term motivation and give examples of motivational techniques used with employees	47.83%	11	<b>73.91%</b>	17	65.22%	15	23
Discuss state and federal employment laws as they pertain to legal issues related to managerial decisions (sexual harassment, discrimination, violence/anger and unemployment compensation)	56.52%	13	<b>78.26%</b>	18	65.22%	15	23
Explain the importance of sustainable practices in a foodservice operation	65.22%	15	<b>73.91%</b>	17	65.22%	15	23
Describe and assess the importance of menu development when it comes to product availability and its impact on the environment	52.17%	12	<b>73.91%</b>	17	69.57%	16	23
Describe the understanding of and ability to describe one's own perception of taste	39.13%	9	60.87%	14	<b>78.26%</b>	18	23
Explain the use of knives and small wares to achieve professional quality results when producing classical knife cuts used in various food preparation and cooking	34.78%	8	60.87%	14	<b>78.26%</b>	18	23
Demonstrate proficiency in using knives and small wares to achieve professional quality results when producing classical knife cuts used in various food preparation and cooking: dice, mince, paste, baton, batonnet, julienne, brunoise, paysanne, lozenge, concassé, citrus segment, chiffonade	26.09%	6	47.83%	11	<b>86.96%</b>	20	23
Demonstrate proficiency using knives and garnishing tools to achieve professional quality results when producing garnishes for canapés, hors d'oeuvres and buffets to include vegetable, fruit, and other	21.74%	5	43.48%	10	<b>91.30%</b>	21	23

forms of food for decorative and edible purposes							
Demonstrate the process for all the cooking techniques used in moist, dry and combination cooking methods to include: steam, poach, simmer, boil, deep fry, sauté, pan-fry, grill, roast, poele, stew, braise and broil. Optional techniques may include sous-vide	17.39%	4	43.48%	10	91.30%	21	23
Produce several types of cold soups and sauces using a food processor and blender	26.09%	6	47.83%	11	82.61%	19	23
Produce mixed green, composed, entrée, protein, starch and fruit salad	26.09%	6	43.48%	10	69.57%	16	23
Produce an assortment of both hot and cold varieties of sandwiches	31.82%	7	45.45%	10	77.27%	17	22
Produce an assortment of sausages	27.27%	6	45.45%	10	86.36%	19	22
Produce a variety of pates, mousses and or terrines to include vegetables and proteins	27.27%	6	50.00%	11	81.82%	18	22
Produce an assortment of natural leavened breads and laminated doughs	27.27%	6	40.91%	9	81.82%	18	22
Define and describe the process for making classical stocks, soups, and mother and compound sauces	56.52%	13	56.52%	13	82.61%	19	23
Demonstrate and describe the process for making classical stocks, soups, and mother and compound sauces	27.27%	6	45.45%	10	86.36%	19	22
Define, prepare, cook, evaluate and assess a variety of breakfast items	40.91%	9	45.45%	10	77.27%	17	22
In the preparation of food items, demonstrate effective techniques in presenting food that maximizes the flavor and esthetic quality of the products used	27.27%	6	40.91%	9	86.36%	19	22
Demonstrate acceptable procedures when preparing potentially hazardous foods, including time and temperature principles	33.33%	7	61.90%	13	80.95%	17	21
Demonstrate competency of scaling, measuring, and weighing of ingredients with a portion scale	27.27%	6	54.55%	12	81.82%	18	22
						Answered	23
						Skipped	30

<b>Q6. What do you like about online culinary arts education?</b>	
May 28 2022 12:34 AM	Flexibility
May 25 2022 05:54 PM	Can provide access to excellent instruction not always available in all areas.
May 25 2022 03:25 PM	Not much, my experience is that students tend to not do their work if they don't have to face an instructor. Zoom/hybrid is OK since it does have a face to face component. This is still a people business requiring skills and knowledge that need to be demonstrated, not just talked about. Just because I can tell you how to prepare an emulsion doesn't mean I can do it nor does it mean that I can fix a broken emulsion.
May 25 2022 03:14 PM	It gives the students the ability to proceed and do work at their own speed and time
May 25 2022 12:17 PM	I believe that the online format functions for theoretical courses or lecture classes, but without the tasting and real presence in hands-on course not applicable.
May 25 2022 06:34 AM	It gives the students more freedom to attend classes at different times.
May 24 2022 02:29 PM	It can effective for basic information
May 24 2022 01:00 PM	For a doctorate there is no need for practical content face to face. There should a rigorous approach to understanding global food supply, manufacturing and science ingredients research, food science and technological advances.
May 24 2022 12:46 PM	The future in education, or at least part of the future. It's here to stay, we need to adjust as educators.
May 24 2022 11:49 AM	The ability to reach more students.
May 24 2022 10:02 AM	It has its positives with regards to assessments and discussions regarding techniques and principles
May 23 2022 09:53 PM	It has the potential to reach additional students who might not be able to participate in a traditional setting.
May 23 2022 02:53 PM	Virtually nothing. Culinary arts education is mostly a scam to begin with, designed to make money from poor students who could learn just as much by getting a job in a restaurant. Even staging, they'd learn more and not have to go thousands of dollars in debt. Online education is just another way to fleece students while shifting the burden to underpaid adjuncts.
May 23 2022 02:46 PM	The best thing about online culinary education is the ability to watch and repeat learning techniques. Such as protein fabrication.
May 23 2022 02:37 PM	It opens up opportunity to many not able to come to campus.
May 23 2022 12:50 PM	Convenience - Able to do the class work at a time that is best.
May 23 2022 10:50 AM	Nothing. It needs to be in person
May 23 2022 10:02 AM	Having taught since 2008, I believe there are some merits to online class components but fully online learning is YouTube and free. More than ever with the pandemic we have found pure online does not work.
May 23 2022 08:19 AM	I like using online culinary arts education to present theory content which allows for better use of lab time based on my current contact hour availability. In hybrid settings (lecture online, lab on campus) it allows students to access course materials and demos on their own time. This flexibility can be beneficial for students who also are working full time, or have other adult responsibilities that prevent them from being a full time "on campus" student.
May 23 2022 07:48 AM	In my experience Hybrid is the way to go. These days the type of students are lacking the functionality of the process of the procedure or the follow through of the recipe.
May 23 2022 07:38 AM	If you work you don't have to rush to get to class, you can take the online at your own pace, and you don't have to miss class because of work or other things
May 23 2022 06:39 AM	The flexibility that it allows.
May 22 2022 10:42 PM	The convenience it provides students. Similarly, it affords convenience to instructors to teach from almost any location.
<b>Q7. What do you dislike about online culinary arts education?</b>	

May 28 2022 12:34 AM	Decreased one on one contact with instructors
May 25 2022 05:54 PM	Limited live-time interactions that mirrors the environment necessary to be a professional cook. Teach taste and touch are intimate activities, not-effectively replicated online.
May 25 2022 03:25 PM	Students are less motivated to do book work. Also, when the competency says "demonstrate" I don't know how you successfully do that at a distance. You can't assess if the technique is correct or if the food actually tastes good with proper texture, doneness, etc.
May 25 2022 03:14 PM	Personal touch and the relationship that is developed. Also can tell by the look if someone does not understand something.
May 25 2022 12:17 PM	There are limitations much like the mandatory practical applications needed to effectively achieve a "working" kitchen environment.
May 25 2022 06:34 AM	I feel the hands on experience is necessary.
May 24 2022 02:29 PM	The ability to work hands-on with students. How is the instructor able to provide direction and feedback without seeing and tasting end result.
May 24 2022 01:00 PM	APA 7e writing. Has no place in the industry.
May 24 2022 12:46 PM	Needs to be a proper mix of hands on and online
May 24 2022 11:49 AM	Not having the ability to cook on commercial equipment and use proper commercial equipment. Not able to have a professional chef there to assist and taste the food made.
May 24 2022 10:02 AM	Hard to determine if during an asynchronous session that the student performed the process themselves or that the flavor profile, taste and texture are correct.
May 23 2022 09:53 PM	When it comes to production, you have to be in the lab to learn more about the equipment and how to work with others in a team environment.
May 23 2022 02:53 PM	Everything. See above.
May 23 2022 02:46 PM	The mastering of flavor. The need to taste the amount of salt or acidity only comes from in person classes, it is not something that can be learned via zoom. Most students don't have access to dine in restaurants where food is being prepared at a very high level .
May 23 2022 02:37 PM	Food is a personal experience that incorporates many specialized skills necessary to learn in person and be observed closely by an instructor. This is difficult if not impossible to do virtually.
May 23 2022 12:50 PM	Lack of personal interaction
May 23 2022 10:50 AM	Everything.
May 23 2022 10:02 AM	The students are not engaged with their instructors and building relationships makes all the difference
May 23 2022 08:19 AM	While the science of culinary arts can be successfully covered in the structure of an online course, the art is often left behind. The in-person classroom has more fluidity to allow the Chef to match their content to the students' skills and interests. It also allows for real-time adjustments for current trends. Online education can also be difficult for students with time management weaknesses. Too often these students delay work and cram last minute. This can mean they do not spend the ideal amount of time on the content, instead meeting the bare minimum and skipping a lot of the critical thinking needed to be successful in this industry.
May 23 2022 07:48 AM	You cannot taste the food and give them feedback or even see their cuts within the food. And if it is a baked good, you cannot even cut it and see the cross-section.
May 23 2022 07:38 AM	There is no personal contact with the instructor or other students. Unless there is a live feed connected with the class. Something you do in culinary class especially labs that you need that feedback right then not after the instructor sees your video.
May 23 2022 06:39 AM	Instructors and students can't taste the foods produced. It doesn't allow for proper critiques of the food.
May 22 2022 10:42 PM	It is more difficult to engage students in an online environment.
<b>Q8. What issues surrounding online culinary arts education should be addressed in order to consider whether the ACFEF AC could accredit this modality?</b>	

May 28 2022 12:34 AM	NA
May 25 2022 05:54 PM	determining how to authenticate that it is indeed the student's work when assessing outcomes. providing a professionally equipped environment in which to learn. There are many great ways to deliver lessons, and some good ways to prove learning, but i haven't seen a great way to taste an omelet online. And someone must taste the omelet.
May 25 2022 03:25 PM	Online is fine for some of the basic courses such as an Introductory course. We have also had quite a bit of success with Sanitation as a hybrid. Culinary Nutrition has also worked well as a blended course (less than 50% is online). Other lab courses might work as blended instruction but when you are teaching culinary technique, equipment operation/assembly/breakdown/cleaning the more time with hands on, the better.
May 25 2022 03:14 PM	Hard to address what is almost impossible to do. We can't taste or see that they made the items and have passed that competency.
May 25 2022 12:17 PM	The physical components, active real time teaching, immediate feedback and correction of unsafe or completely wrong applications
May 25 2022 06:34 AM	Yes
May 24 2022 02:29 PM	The ability to evaluate finished product. How are those skills assessed; tasting a roux based soup to determine if the roux is properly prepared?
May 24 2022 01:00 PM	Contact hours and practical examinations.
May 24 2022 12:46 PM	Needs hands on testing at the end of the semester to actually taste the food
May 24 2022 11:49 AM	Only if there is an apprentice or large internship tied to learning. I feel that is needed to make sure students are getting the proper education and techniques needed for the industry.
May 24 2022 10:02 AM	Honestly, completed product and if the competencies are met and gradable
May 23 2022 09:53 PM	Cheating on exams, etc.
May 23 2022 02:53 PM	Seriously? The ACF should forsake all accreditation of online programs.
May 23 2022 02:46 PM	The quality of the online demonstrations, the ability for the instructor to operate media equipment, the response time of instructors and learning outcomes/grading.
May 23 2022 02:37 PM	How to properly evaluate knife skills and tasting components without in-person observations.
May 23 2022 10:50 AM	Do not accredit this modality!
May 23 2022 10:02 AM	There is no real accountability here. Not to mention, accrediting the online program through CHE or other college accreditation bodies would be first, ACFEF should be concerned about it. We have seen 2 schools accredited by the ACF then closed for fraud. The issues are vast
May 23 2022 08:19 AM	How can we taste/critique the food? How do students learn to use industry standard equipment? How will students learn to operate in a professional team-based environment? What flexibility exists for online theory and apprenticeship hands on learning?
May 23 2022 07:48 AM	They really need to take a look at the feedback issues. Have the student come in for a practical final when the class is done for a course. Just receiving credit for a class is not good enough.
May 23 2022 07:38 AM	can not think of any pressing issues
May 23 2022 06:39 AM	The students ability to cook. I don't think taking pictures of food and critiquing from those pictures allows for proper demonstration of skills. Many people can make a picture look good, but how does it taste?
May 22 2022 10:42 PM	No issues with the modality need to be addressed. The ACFEFAC needs to offer clear standards for institutions to meet so that online programs can be accredited just like traditional programs.
<b>Q9. How can an instructor maintain interaction and engagement with students in an online course?</b>	

May 28 2022 12:34 AM	Required scheduled meetings, live classes periodically
May 25 2022 05:54 PM	there are so many effective tools these days...this is not the most serious challenge facing online instruction.
May 25 2022 03:25 PM	Difficult. Depends on the ability of the instructor to engage students in an online format along with the interest of the students, distractions, and other issues. There are several papers on the topic, none of which I have found to be effective methods. Lots of video helps, lecturing doesn't help. More activity/action seems to get the attention better.
May 25 2022 03:14 PM	I think they should all be synchronous. Can make sure that there are discussions that the instructor takes part in and activities that engage the students and the instructor.
May 25 2022 12:17 PM	In hybrid and synchronous delivery yes
May 25 2022 06:34 AM	By doing live demonstrations .
May 24 2022 02:29 PM	Great question for classes that are preparing product. Not sure where to go with this none.
May 24 2022 01:00 PM	My experience with Stratford is that the faculty have not been educated in creating a interactive online environment.
May 24 2022 12:46 PM	Very good communication and video assignments
May 24 2022 11:49 AM	Zoom, or similar tech. Feedback on assignments in a timely manner, and relevant feedback to engage students.
May 24 2022 10:02 AM	I like synchronous classes where there is interaction, but if the course is discussion based, the instructor must respond daily, if possible, to any question or discussion thread
May 23 2022 09:53 PM	Discussion posts or using social media to connect with students.
May 23 2022 02:53 PM	Can't. Not compared to being in a classroom.
May 23 2022 02:46 PM	Very challenging. Student's expectations of instructor availability is unreasonable. Students do not seem to stay engaged as much as in-person modality.
May 23 2022 02:37 PM	Require participation in an on-line discussion board, or better, virtual classrooms with cameras required to be on at least for a portion of the time.
May 23 2022 12:50 PM	Discussion Boards, Zoom Meetings, and Recorded Demos
May 23 2022 10:02 AM	You can't. I work with 4 modalities and those that are purely online never do as well as those that are not. Data.
May 23 2022 08:19 AM	I find group discussions via video conferencing to be the most beneficial. Additionally, the onus is on the Chef to get to know the students and understand their personal goals to help them see how their education relates to those goals.
May 23 2022 07:48 AM	The instructor needs to interact with the student weekly at least, if not every other day to check on the student. This will ensure that the student is on top of their work and that you care what they are doing.
May 23 2022 07:38 AM	Have live feed once a week
May 23 2022 06:39 AM	Synchronous online.
May 22 2022 10:42 PM	Instructor and student engagement can be maintained by course design that includes regular meetings with the class, keeping online office hours, and regularly calling, emailing, and/or texting students.
<b>Q10. How can an instructor help students maintain interaction and engagement with each other in an online course?</b>	
May 28 2022 12:34 AM	Discussion questions or required video conferencing
May 25 2022 05:54 PM	Great worksheets, discussions, and constantly feeding the system.
May 25 2022 03:25 PM	Small groups in chat rooms that get monitored/facilitated. Large groups, in class or online, still has some students who will not talk or participate. They are afraid to provide input or ask questions. In smaller groups that they are comfortable with, dialogue seems to be better.

May 25 2022 03:14 PM	Weekly meetings and group discussions. Questions that make the students think and give them the ability to apply to real life situations.
May 25 2022 12:17 PM	Discussion groups, group assessment of each other's work submission
May 25 2022 06:34 AM	Live discussions. I hate discussion boards. Students do not like to participate in them.
May 24 2022 02:29 PM	It's not easy. Each class is different. Read the class to see what works.
May 24 2022 01:00 PM	By creating dynamic content. They are competing with YouTube. Accepting that is the first step. Create an appropriate space to record. Learn and understand the values of camera presence. Understand and use seaways effectively.
May 24 2022 12:46 PM	Communication, communication
May 24 2022 11:49 AM	Group discussions, grouped work outside of class done via zoom or similar tech.
May 24 2022 10:02 AM	Promoting an online community is tough, I would provide my instructors with some training and a guide to best practices developed by online instructors that support engagement activities
May 23 2022 09:53 PM	Social media, group projects/presentations.
May 23 2022 02:53 PM	Can't. Not compared to being in a classroom.
May 23 2022 02:46 PM	I have not viewed this to be an issue. I think it helps to encourage students to keep their cameras on and their speakers muted during class.
May 23 2022 02:37 PM	Require participation in an on-line discussion board, or better, virtual classrooms with cameras required to be on at least for a portion of the time.
May 23 2022 12:50 PM	By using Discussion Boards
May 23 2022 10:02 AM	Discussion boards, blogs and chat rooms
May 23 2022 08:19 AM	Team-based critiques and project building. Students should be placed in smaller (rotating) cohorts that require a certain amount of group critique or project development. (i.e. Each member covers a California wine which comes together to be a informational tourism brochure.)
May 23 2022 07:48 AM	Again, this goes back to being involved with them. You must be engaged with them.
May 23 2022 07:38 AM	Put them in small groups that have to meet at least twice a week (live) to discuss any problems or issues.
May 23 2022 06:39 AM	Very difficult. Chat rooms and group texts.
May 22 2022 10:42 PM	Provide opportunities for students to do group projects; provide students the opportunity to visit before or after every online meeting.
<b>Q11. What would help improve/enhance students' learning in an online course?</b>	
May 28 2022 12:34 AM	Ability to reach out to others for assistance.
May 25 2022 05:54 PM	Constant engagement from the faculty and their peers. the same best things about being together. Also, intuitive user interface
May 25 2022 03:25 PM	A Zoom component, not fully online and independently presented. Not many students have the discipline or drive to be effective in fully online, self directed courses.
May 25 2022 03:14 PM	Weekly meetings and group discussions. Questions that make the students think and give them the ability to apply to real life situations.
May 25 2022 12:17 PM	Modern technology for deliver and submission. Camera formats do not provide the best production quality
May 25 2022 06:34 AM	More interaction.
May 24 2022 02:29 PM	Develop very interactive sessions for students. Have students prepare items along with instructor.
May 24 2022 01:00 PM	look and learn environment.
May 24 2022 12:46 PM	Instructon video, like MasterClass
May 24 2022 11:49 AM	hands on work with a professional chef, in person in a commercial setting.
May 24 2022 10:02 AM	Not sure that any additional resources that are not already available would be necessary

May 23 2022 09:53 PM	Consistency in terms of communication from the instructor, clear expectations, organized content and objectives.
May 23 2022 02:53 PM	Telling them to save their money and just get a job in a restaurant.
May 23 2022 02:46 PM	TA for online classes helps to keep the instructor engaged and on subject. Promotes completion of thoughts versus interruptions from students and in the chat.
May 23 2022 02:37 PM	Require virtual classrooms with cameras required to be on at least for a portion of the time in order to observe interactions and create more of a personalized experience.
May 23 2022 10:50 AM	Nothing. It needs to be in-person
May 23 2022 10:02 AM	The students motivation
May 23 2022 08:19 AM	Real world experience- required apprenticeships. A lot of video instruction that is robust and well edited. Regular correlation of how the skills and content relate to industry application.
May 23 2022 07:48 AM	Have plenty of resources available to them to help with their learning abilities. Everyone has different learning abilities. This has been something that has been difficult for the last 10 years, that I have noticed. You have to have a variety of tools open to them no matter what it is. If it is a computer to the library in their area.
May 23 2022 07:38 AM	Making sure that they have a fast response time to any and all questions, problems or issues.
May 23 2022 06:39 AM	Putting them in a lab and having them cook.
May 22 2022 10:42 PM	Do everything possible to make an online class resemble an in-person class - regular office hours, regular contact, in-the-moment feedback.
<b>Q12. What advice do you have for an instructor planning to set up an online course?</b>	
May 28 2022 12:34 AM	Learn the platform well.
May 25 2022 05:54 PM	Find ways to activate what your asking them to learn - by having them do it.
May 25 2022 03:25 PM	Over plan, lots of effective (read professional here) video links (it's all on youtube), that students will be interested in watching on their own. They also can't be too long. I have found that the Modern Marvels videos are quite good at keeping interest and attention, otherwise I look for shorter videos, 12 min or less. Let students know that when the zoom session begins there will be questions and discussions on the video topics. If the video's are good and the discussions can be centered around and expand on the topic then the instructor can add their expertise to engage the student and enhance/increase the knowledge and learning.
May 25 2022 03:14 PM	Try to set up the weekly modules so there is engagement and good discussion between the instructors and students. Break the lessons in micro units so there is not so much to do each time. No auto-graded quizzes or exams.
May 25 2022 12:17 PM	There must be a very clear rubric to address specific elements of the lesson. What will be assessed and evaluated, expectations and submission format (aps)
May 25 2022 06:34 AM	Set up a live discussion, and demos for more interaction.
May 24 2022 02:29 PM	Be patient, continue to develop the course especially if this format is new to you.
May 24 2022 01:00 PM	Have a mindset of an online content creator. loss the vibrato and act like a real person vs an aloof authoritarian. contemporary students do not respond to imperialism.
May 24 2022 12:46 PM	Keep video's simple and to the point.
May 24 2022 11:49 AM	Maintain standards needed for the industry or accreditation. Be open and flexible to change as needed to make content work for the students.
May 24 2022 10:02 AM	Be smart about expectations and content, culinary students and CTE students do not work well under this modality. Not saying they can't, but they will need extra support and guidance to succeed
May 23 2022 09:53 PM	Use a variety of tools but be consistent in how you communicate with students. Be clear about your expectations.
May 23 2022 02:53 PM	Don't do it. You're destroying education and the foodservice industry. Spend your time figuring out ways to lower the cost of traditional education.

May 23 2022 02:46 PM	Be prepared, learn how to use Zoom and test before you begin. Time your lectures so that you are utilizing the time together to the best of your ability and not leaving large amounts of time at the end or running over - same goes for in-person classes.
May 23 2022 02:37 PM	Be prepared to reach out to students in different ways, e-mail, texting, video or phone conferences as part of a weekly assignment as you are unable to create a relationship seeing each other in class where small communications could normally be made.
May 23 2022 12:50 PM	Be thorough in all preparations. Students may learn at different levels.
May 23 2022 10:50 AM	Don't! This is a very intimate connection with the public. Their safety is in your hands.
May 23 2022 10:02 AM	The experience of hands-on learning is invaluable and should not be altered.
May 23 2022 08:19 AM	Be prepared for a long development process
May 23 2022 07:48 AM	Develop higher-order assessments. While so much of what we cover is "define..." or "identify..." Instead we need them to analyze, compare & contrast, etc as they are challenged to critically think about the content.
May 23 2022 07:38 AM	You have to have lots of patience setting up an online course. I have set-up several. You have to make sure you are setting it up for the masses, not just for college students. You have to be open to ALL TYPES of learning disabilities. So, some assignments may be easy for some, but hard for others. However, the assignments need to be clarified that the assignments are understandable to someone that is in middle school. That is how low you usually have to go.
May 23 2022 06:39 AM	Make sure you have the time and the patience.
May 22 2022 10:42 PM	Plan on having live components for demonstrations.
	Do your "homework" - research and apply as many teaching methods and class structures to make the online class as close as possible to an in-person class.

## APPENDIX P: AMERICAN CULINARY FEDERATION ‘ACCREDITOR’ SURVEY SUMMARY

Based on the Definitions of Online Culinary Arts Modality Iterations, indicate the iterations through which an instructor could effectively teach (and a student could effectively learn) the topic, principle, technique, or method (as per the Postsecondary ACFEF AC Required Knowledge and Skill Competencies, a randomized selection of competencies are included here) [Select ALL that apply].

	Automated Online		Hybrid Online		Synchronous Online		Total
Discuss and evaluate the importance of professional ethics as it applies to the foodservice industry	30.00%	3	70.00%	7	80.00%	8	10
Outline the organization, structure and functional areas in various hospitality organizations as they pertain to the functions of menu planning, purchasing, food production and service, food and beverage controls, management, etc	60.00%	6	80.00%	8	60.00%	6	10
Identify and describe professional organizations associated with the hospitality and foodservice profession and discuss these organizations’ roles in preparing and advancing one’s career in the industry	70.00%	7	80.00%	8	70.00%	7	10
Examine the systematic job responsibilities of the various food service and hospitality positions	60.00%	6	90.00%	9	60.00%	6	10
Discuss the ingredients and equipment used in the preparation of different international cuisine	30.00%	3	60.00%	6	90.00%	9	10
Identify tools, equipment and products typically used in Garde Manger with emphasis on proper food handling, including safety, sanitation, and storage	40.00%	4	80.00%	8	80.00%	8	10
Identify cold soups and sauces used in the Garde Manger area of a foodservice establishment	40.00%	4	60.00%	6	90.00%	9	10
Define basic types of salad dressings and produce a variety of salad dressings including emulsified, dairy based, vinaigrette and coulis	30.00%	3	60.00%	6	90.00%	9	10
Explain the history and defining characteristics of the sandwich, as well as the most popular modern variations	60.00%	6	70.00%	7	80.00%	8	10
Describe the types of international items that can be used as hors d’oeuvres on a buffet line or as passed canapés	40.00%	4	60.00%	6	90.00%	9	10
Define the various types of forcemeats including sausage, pate, terrine and mousse	50.00%	5	70.00%	7	90.00%	9	10

Identify microorganisms that are related to food spoilage and food-borne illnesses and describe methods of prevention	50.00%	5	90.00%	9	70.00%	7	10
Outline the requirements for proper receiving of raw, read- to-eat, and non-food items	50.00%	5	90.00%	9	70.00%	7	10
Demonstrate appropriate emergency policies for kitchen and dining room injuries	11.11%	1	66.67%	6	55.56%	5	9
Outline the requirements for proper storage of raw, ready-to-eat, and non-food items	50.00%	5	90.00%	9	70.00%	7	10
Perform basic math functions to include fractions, decimals, weights, and measurements	40.00%	4	90.00%	9	60.00%	6	10
Convert recipes using a yield formula to increase and decrease quantities	50.00%	5	80.00%	8	60.00%	6	10
Discuss and explain the basic production process for distillation and fermentation	30.00%	3	90.00%	9	60.00%	6	10
Discuss and describe wines by grape and/or other fruit variety, country, growing region and production process	30.00%	3	90.00%	9	60.00%	6	10
Define Baking terminology and explain how to apply them	50.00%	5	80.00%	8	60.00%	6	10
Identify baking ingredients and explain their function in the formulation of baking and pastry recipes	70.00%	7	70.00%	7	80.00%	8	10
Describe the process of bread production with natural leavening agent to include the mixing methods	50.00%	5	70.00%	7	80.00%	8	10
Describe purchasing methods used in foodservice operations	70.00%	7	90.00%	9	60.00%	6	10
Discuss and analyze the importance of sanitation and HACCP procedures that affect receiving and issuing of goods in a foodservice operation	60.00%	6	90.00%	9	60.00%	6	10
Describe primary characteristics, functions and major food sources of major nutrients	70.00%	7	90.00%	9	60.00%	6	10
Interpret food labels in terms of the portion size, ingredients and nutritional value	70.00%	7	90.00%	9	60.00%	6	10
Describe the mechanics of proper table service as it pertains to American, English, Russian, French, and buffet service	66.67%	6	77.78%	7	55.56%	5	9
Discuss the rationale for a seasonal menu and analyze how it may affect the overall menu costs, food quality and availability	50.00%	5	90.00%	9	60.00%	6	10

Apply principles of nutrition when developing recipes and menu choices, including labeling laws that address allergies and raw food	60.00%	6	80.00%	8	60.00%	6	10
Discuss menu-planning resources to include internet, professional sources, vendors and foodservice associations	50.00%	5	80.00%	8	60.00%	6	10
Describe the supervisor's role in decision-making, problem solving and delegation of duties	60.00%	6	80.00%	8	60.00%	6	10
Define the term motivation and give examples of motivational techniques used with employees	70.00%	7	80.00%	8	60.00%	6	10
Discuss state and federal employment laws as they pertain to legal issues related to managerial decisions (sexual harassment, discrimination, violence/anger and unemployment compensation)	80.00%	8	70.00%	7	60.00%	6	10
Explain the importance of sustainable practices in a foodservice operation	60.00%	6	90.00%	9	60.00%	6	10
Describe and assess the importance of menu development when it comes to product availability and its impact on the environment	70.00%	7	70.00%	7	60.00%	6	10
Describe the understanding of and ability to describe one's own perception of taste	70.00%	7	60.00%	6	70.00%	7	10
Explain the use of knives and small wares to achieve professional quality results when producing classical knife cuts used in various food preparation and cooking	66.67%	6	77.78%	7	66.67%	6	9
Demonstrate proficiency in using knives and small wares to achieve professional quality results when producing classical knife cuts used in various food preparation and cooking: dice, mince, paste, baton, batonnet, julienne, brunoise, paysanne, lozenge, concassé, citrus segment, chiffonade	25.00%	2	37.50%	3	87.50%	7	8
Demonstrate proficiency using knives and garnishing tools to achieve professional quality results when producing garnishes for canapés, hors d'oeuvres and buffets to include vegetable, fruit, and other forms of food for decorative and edible purposes	12.50%	1	37.50%	3	87.50%	7	8
Demonstrate the process for all the cooking techniques used in moist, dry and combination cooking methods to include: steam, poach, simmer, boil, deep fry, sauté, pan-fry, grill, roast,	12.50%	1	37.50%	3	87.50%	7	8

poele, stew, braise and broil. Optional techniques may include sous-vide							
Produce several types of cold soups and sauces using a food processor and blender	33.33%	3	55.56%	5	88.89%	8	9
Produce mixed green, composed, entrée, protein, starch and fruit salad	22.22%	2	55.56%	5	88.89%	8	9
Produce an assortment of both hot and cold varieties of sandwiches	33.33%	3	55.56%	5	88.89%	8	9
Produce an assortment of sausages	33.33%	3	55.56%	5	88.89%	8	9
Produce a variety of pates, mousses and or terrines to include vegetables and proteins	33.33%	3	55.56%	5	88.89%	8	9
Produce an assortment of natural leavened breads and laminated doughs	22.22%	2	55.56%	5	88.89%	8	9
Define and describe the process for making classical stocks, soups, and mother and compound sauces	60.00%	6	70.00%	7	90.00%	9	10
Demonstrate and describe the process for making classical stocks, soups, and mother and compound sauces	0.00%	0	62.50%	5	75.00%	6	8
Define, prepare, cook, evaluate and assess a variety of breakfast items	22.22%	2	44.44%	4	88.89%	8	9
In the preparation of food items, demonstrate effective techniques in presenting food that maximizes the flavor and esthetic quality of the products used	11.11%	1	55.56%	5	77.78%	7	9
Demonstrate acceptable procedures when preparing potentially hazardous foods, including time and temperature principles	22.22%	2	44.44%	4	66.67%	6	9
Demonstrate competency of scaling, measuring, and weighing of ingredients with a portion scale	22.22%	2	44.44%	4	77.78%	7	9
						<b>Answered</b>	<b>10</b>
						<b>Skipped</b>	<b>9</b>

Q6. What do you like about online culinary arts education?	
May 30 2022 11:47 AM	It will make it more accessible to more students to fit into a schedule while they work.
May 26 2022 02:29 PM	It can reach a wide audience and offer accommodations for some disabilities. Students don't need to be able to travel in for classes. Schedules can be non-traditional.
May 24 2022 11:12 AM	Access for a broader population.

May 24 2022 06:43 AM	I really only prefer but your knowledge that can be delivered for understanding and comprehension of our industry and some cooking techniques. I do not prefer for actual skills instruction.
May 23 2022 08:36 PM	Flexibility
May 23 2022 11:16 AM	Freedom of scheduling for the most part. Ability to work on classes when others can't.
May 23 2022 09:27 AM	Classroom courses online and independently driven according to the student schedule
May 23 2022 05:25 AM	Having taught culinary arts online for close to two years I am not a fan. Some subjects and content areas need to be taught in person. It is good for some of the ACF standards, such as describe, define, etc...
May 22 2022 10:52 PM	Flexibility, opportunity to proceed at one's own pace
<b>Q7. What do you dislike about online culinary arts education?</b>	
May 30 2022 11:47 AM	The actual hands on training that is pertinent to culinary arts. With the immediate feed back and corrections.
	There is no tasting of food, so the student's palette is undeveloped. Students don't receive critique in a meaningful way. Disciple can not be instilled while working in the kitchen, body mechanic issues would not be corrected while in process, such as how the knife is held, how the cake is decorated, how the meat is sliced, etc.. The students would not be using commercial equipment, professional tools. How do the students get the food to cook? Is it the same as the instructor is demonstrating?
May 26 2022 02:29 PM	It assumes that every student has good technology and internet access.
May 24 2022 11:12 AM	Hard to evaluate behavior in the professional kitchen itself.
May 24 2022 06:43 AM	Students in our industry are typically not the best online learners. There's plenty of data to support us. In addition to this during the pandemic when learning how to move online majority of our students struggled.
May 23 2022 08:36 PM	Connection and reinforcement. Lack of attention.
May 23 2022 11:16 AM	Hands on and real time critiques.
May 23 2022 09:27 AM	No seeing or demonstrating technique and skills. You can support and re teach on on one with a student and you can not taste the product made.
May 23 2022 05:25 AM	Personal interactions and techniques that are necessary and relevant to the effectiveness of graduates. The difference between cooling classes and certifying (ACF) students to contribute to the industry.
May 22 2022 10:52 PM	Lack of ability to assess taste and improve with students
<b>Q8. What issues surrounding online culinary arts education should be addressed in order to consider whether the ACFEF AC could accredit this modality?</b>	
May 30 2022 11:47 AM	Documentation
May 26 2022 02:29 PM	What level of quality is the work of the students? Are they prepared to go work in a professional kitchen?
	Earning badges where certain hurdles need to be completed; though without the hurdles being too complicated.
May 24 2022 11:12 AM	For example, a badge could have as a component the sign off by a co-worker on achievement of a task.
May 24 2022 06:43 AM	I think one of the most critical things to look at is the quality of instruction being delivered and our faculty properly trained to do this type of instruction online.
May 23 2022 08:36 PM	Quality of programming and students value in education
May 23 2022 11:16 AM	Quality of virtual communications. The ability to assess finished products. They may look awesome but no have any flavor. The ability of the students to hide defects.

May 23 2022 09:27 AM	integrity and making sure they can do key competencies in person
May 23 2022 05:25 AM	I would not advocate for this as a viable means to certification. Unless the curriculum was deconstructed into content knowledge and skills based performance. Learn the direct instruction online and then demonstrate it in person.
May 22 2022 10:52 PM	Working in a professional, approved sanitary kitchen
<b>Q9. How can an instructor maintain interaction and engagement with students in an online course?</b>	
May 30 2022 11:47 AM	Just be available and answer posed questions ASAP. Video, you tube, and lots of demo's.
May 26 2022 02:29 PM	The instructor and student would need to connect several times a week via video call, phone call, etc. Email would not be enough. It would be hard. The student should be submitting videos of their work and the instructor should then be calling them to give a critique of every dish.
May 24 2022 11:12 AM	There needs to be some critical feedback with the opportunity for the student to demonstrate improvement based on said feedback.
May 24 2022 06:43 AM	I think the two best available options are asynchronous meetings and actively involved discussion boards.
May 23 2022 08:36 PM	Difficult. Discussion boards. Asynchronous projects?
May 23 2022 11:16 AM	Creative assignments and activities.
May 23 2022 09:27 AM	making things interactive and engaging students with various virtual platforms like NEAR POS and Ed Puzzle
May 23 2022 05:25 AM	Professor demonstrations, student presentations & demonstrations, Guest chefs and hospitality industry professionals. Modern techniques that make each chef individual. Management of facility, food, people, etc...
May 22 2022 10:52 PM	Hard work! Consistent interaction and
<b>Q10. How can an instructor help students maintain interaction and engagement with each other in an online course?</b>	
May 30 2022 11:47 AM	Make sure that part of the curriculum and rubric is interaction and make it accountable.
May 26 2022 02:29 PM	I would think that would be very challenging. Why would the students care what the other students are doing.
May 24 2022 11:12 AM	Discussion boards can; however, I have found that they tend to have limited effectiveness when the students do not know how to interact in a discussion board.
May 24 2022 06:43 AM	I think you have to clearly explain the expectations of engagement and what it means to every student. And you need to be very proactive in making sure that they are all participating. You can't let them drop off for more than a few days at a time.
May 23 2022 08:36 PM	Incentives and intriguing topics
May 23 2022 11:16 AM	Discussions, learning objects
May 23 2022 09:27 AM	that's hard, and I don't really have a good answer.
May 23 2022 05:25 AM	Email lists, multi media platforms, zoom, google meets, remind.com
May 22 2022 10:52 PM	Doing a synchronous class
<b>Q11. What would help improve/enhance students' learning in an online course?</b>	
May 30 2022 11:47 AM	no WIFI interruptions
May 26 2022 02:29 PM	Perhaps a VR experience?
May 24 2022 11:12 AM	Some workplace evaluation.
May 24 2022 06:43 AM	I think the quality of the material that is prepared is critical. There are a lot of good textbook resources out there that can be used and if you're going to use instructor

	lead videos, you need to make sure your faculty are trained to be able to develop high-quality video demonstration.
May 23 2022 08:36 PM	Hybrid
May 23 2022 11:16 AM	One on one, virtually
May 23 2022 09:27 AM	Creating a more interactive experience
May 23 2022 05:25 AM	Meet as much synchronously as possible. Design instruction to be interactive with tangible measurable student products.
May 22 2022 10:52 PM	Frequent interaction
<b>Q12. What advice do you have for an instructor planning to set up an online course?</b>	
May 30 2022 11:47 AM	Practice, talk to others that have done it for a while, watch some courses, enroll in an online course.
May 26 2022 02:29 PM	Good luck! Work hard on engaging with students thorough the computer screen.
May 24 2022 11:12 AM	Scaffolding is helpful to see the improvement as it happens – this is particularly good for the student to notice.
May 24 2022 06:43 AM	Be very thorough, very creative, and above all else make sure you completely understand the LMS and become an expert in online instruction
May 23 2022 08:36 PM	Engage
May 23 2022 11:16 AM	Put the time in to develop it properly. Get the learners active from the start and keep them engaged.
May 23 2022 09:27 AM	May the force be with you. Utilize interactive digital media resources.
May 23 2022 05:25 AM	Place the learn outcomes on the student, clearly defined and with the documentation and productions of products that meet the objectives.
May 22 2022 10:52 PM	Many modalities

## **APPENDIX Q: CUL 1302 FOOD PRODUCTION I - -EXAMPLE TASTE PERCEPTION ESSAYS**

### **Student Essay 1**

As a Chef it is important to understand how we taste because we are able to build the flavors of our dish by compounding flavors that affect different parts of our taste buds. For example if you put multiple salty flavors together they will mask each other because you are hitting the same part of your tastes. An experienced Chef will know that you can layer flavors using different tastes such as salty and sweet to create more complicated pairings. Some of these are well known such as the example above of salty and sweet, or sweet and sour. Some flavors pairings are less known and can produce the wonderful umami flavor when paired together. As a Chef your taste buds and palette go hand in hand with how you build recipes and how successful those recipes turn out. Once you get the basics down of when flavors hit your tongue, a Chef can then start to add in different textures to further influence the palette and experience.

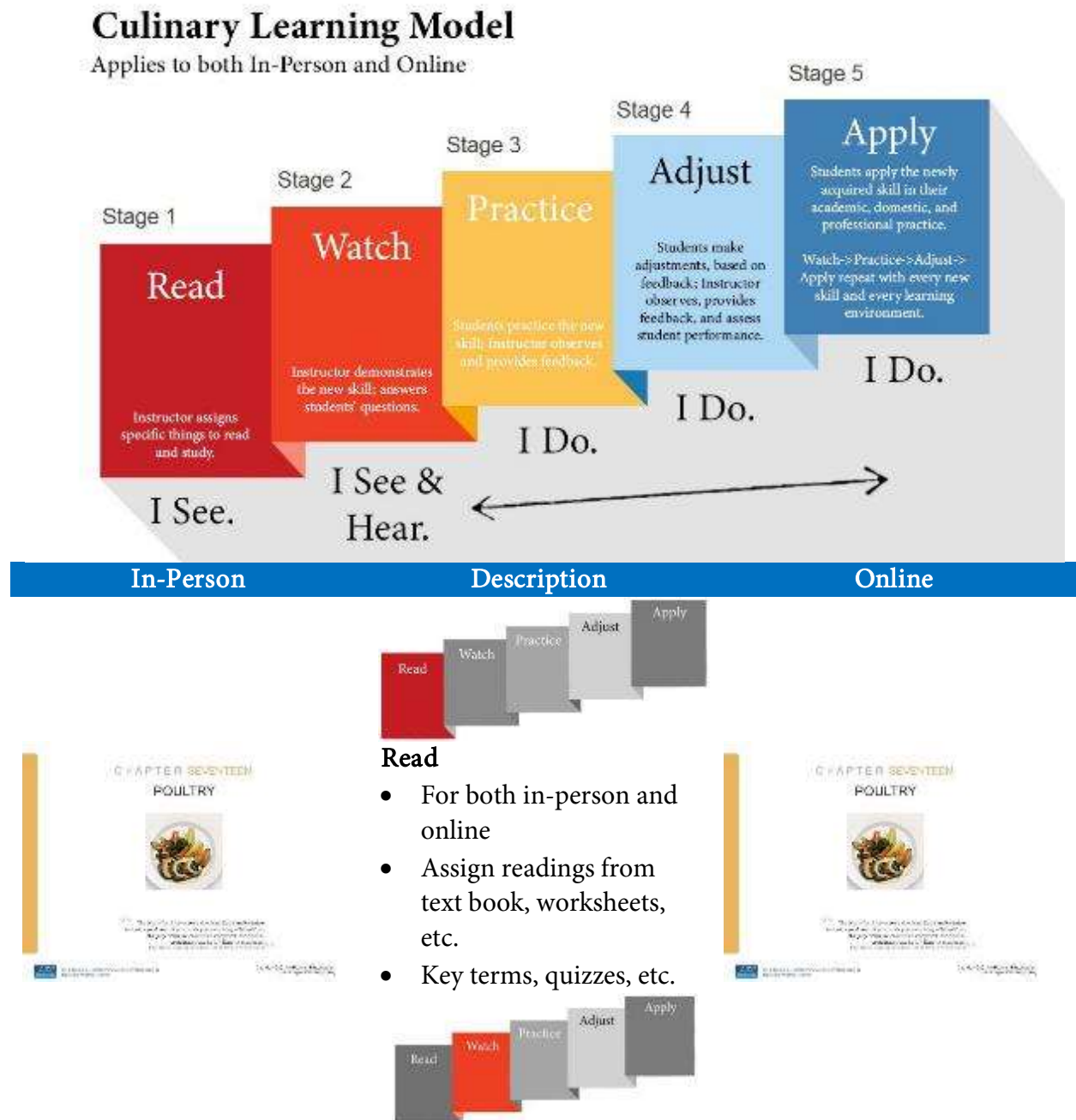
## Student Essay 2

Why is it important for a chef to understand how we taste? Seventy five to ninety five percent of taste is perception. It is actually smell instead of taste. There is a term called neurogastronomy which is the study of the brain on flavor. The brain plays tricks on us involving our sense of taste. What we see, the expectations, the sounds, smell, taste, color and shape are all brought together in allowing the brain to gather information about our sense of taste.

Humans unlike the animal kingdom prefer our food to be enhanced. The most important tool in the kitchen is our senses. Flavor and taste are most important. Flavor consist of smell, taste and texture. It is multidimensional where as taste is in the mouth only. Taste, smell and touch are all part of the flavor equation. A true culinary artist wants to express their ideas thru their ingredients. Understanding the elements of flavor helps the chef to identify what we like and dislike. What we like is what we buy. Making our senses happy makes life more interesting.

We have a part of the brain called the gastratory cortex. It makes a conscience perception of what we eat and drink. It was thought to be activated by taste, but scientist came to find out that it can be activated also by the absence of food but also by the odor, by vision and sound.

## APPENDIX R: CULINARY LEARNING MODEL “INSTRUCTION” TABLE (IN-PERSON & SYNCHRONOUS ONLINE))





### Watch

- In-Person: chef demonstrations; Guest Chef appearances
- Online: pre-recorded demonstrations; pre-recorded Guest Chef appearances



### Practice

- In-person: students practice, in class, the skills & techniques demonstrated
- Online: students practice, online, the skills & techniques demonstrated



### Adjust

- In-person, students receive real-time feedback, corrective suggestions, while working in the kitchen
- Online, students received real-time, corrective suggestions, while working at home on ZOOM session (with camera angles adjusted to broadcast)





### Apply

- In-person, students produce final products based on what they read, watched, practiced, and adjusted from feedback and present for final grading
- Online, students produce final products based on what they read, watched, practiced, and adjusted from feedback and present for final grading

