

Program Review Self-Study
Culinary Arts
Western Colorado Community College
Colorado Mesa University

February 1, 2016

Introduction and Program Overview

Program Description

The Culinary Arts program operates on the Bishop Campus of Western Colorado Community College and offers the following paths of study:

- Technical Certificate in Culinary Arts
- Associate of Applied Science degree in Culinary Arts
- Technical Certificate in Baking and Pastry Arts
- Associate of Applied Science degree in Baking and Pastry Arts

Brief History of the Program

The Culinary Arts program was established in the spring semester of 1998 with one full-time faculty, one part-time faculty and seven full-time students. When the program began there were two adjoining culinary labs, a dining room named Chez Lena, and a small cafeteria-style outlet catering to students, faculty, and campus visitors. The dining room and cafeteria were run by faculty and additional staff (not students) primarily serving lunch and occasionally catering special events. Over time, operation of the cafeteria was turned over to Sodexo (a contracted food service provider) and a class in line-cooking techniques was added. This allowed Chez Lena to become a student-run operation, freed faculty to focus on teaching, advising, and recruiting, and eliminated a staff position. The main teaching lab was initially equipped with three six-burner ranges which soon proved to be inadequate for classes of 16 students as the program grew. Equipment layout was reconfigured and the exhaust hood was expanded to allow seven ranges, but adequate access to cooking equipment still often proved difficult for students.

In the fall of 2013 campus acquisition of a new building allowed the culinary program to build new labs in what had previously been classroom space. The renovation resulted in two new state-of-the-art labs, one for cooking which opened for the spring 2014 semester and one for baking and pastry which opened for the fall 2014 semester. This led to the establishment of a Baking and Pastry program.

Currently for Culinary Arts there are three full-time faculty, one three-quarter time faculty, seven part-time faculty, one part-time staff member, and over 100 degree-seeking students.

Recommendations from the Previous External Review and Progress Made Toward Addressing Them

The previous program review was conducted in the 2009-2010 academic year and resulted in several recommendations as outlined below:

Recommendation	Progress Made
Create a clear and comprehensive Culinary and Hospitality curriculum with effective	The Culinary faculty regularly review current trends to ensure the curriculum meets the

marketing, recruitment, and retention planning and implementation	needs of a changing industry. We have partnered with the high school marketing program on campus to do some limited social media marketing.
Expand the facility to include two culinary labs, one baking and pastry lab, one commercial kitchen, four classrooms with effective technology, and a small restaurant dining room focusing on training rather than sales volume	Culinary and baking lab expansions were completed in 2014 and included technology implementation. Classroom space is shared with other programs on campus. The restaurant dining room size remains unchanged, but curriculum has focused on training.
Package educational costs to include tuition, fees, texts, uniforms, and supplies for a single fee. Allocate a portion of those funds for program operations and a portion for marketing and recruitment.	Tuition, fees, and budget allocation are outside the scope of the day to day functions of faculty.
Hire a Chef recruiter	No progress made to date. As CMU/WCCC continue to grow it may be a wise strategy to employ specialized recruiters with specific program knowledge.
Recruit and select a Chef Educator for Baking and Pastry programs	A Chef Educator for Baking and Pastry was hired beginning in the fall of 2014.
Recruit and select a Hospitality Professor to teach BAS degree in Hospitality	A Hospitality Professor was hired by the Business Education Department at CMU.
Certified Hospitality Educator certification for each instructor	One full-time faculty member holds a CHE certification. The other two full-time faculty members are Certified Chef Educators through the American Culinary Federation.
Design, install, train, and maintain for educational technology	Technology equipment was installed in the new labs.
Rewrite the curriculum for the AAS degree in Culinary Arts	No full rewrite, but the curriculum has been reviewed regularly and changes have been made which will be detailed in the section on curriculum.
Create a culinary certificate	Already existed.
Create Baking and Pastry curriculum package and syllabi	A curriculum package and syllabi were completed prior to the hiring of a Baking and Pastry educator. An outside consultant was hired to provide course outlines, select source material, and develop grading instruments.
Create BAS curriculum package and syllabi	BAS degrees are administered through CMU.

Create nutritional cooking and baking curriculum package and syllabi	No progress made.
Create Sommelier Certificate/Bartending Certificate curriculum packages and syllabi	No progress made.
Develop marketing plan, branding plan, recruitment plan, retention plan	No comprehensive plan has been implemented. The Culinary Arts faculty would welcome the opportunity to work with the CMU Marketing, Admissions, and Institutional Research staffs to develop and implement a comprehensive effort to recruit and retain the best students interested in careers in food, dining, and hospitality.

Mission Statement and Goals for the Program

The role and mission of the institution was reenacted in 2010 by Colorado General Assembly (Colorado Revised 23-53-101) and amended in 2011 when Mesa State College was renamed Colorado Mesa University. After a 2012 amendment, the role and mission is:

There is hereby established a university at Grand Junction, to be known as Colorado Mesa University, which shall be a general baccalaureate and graduate institution with selective admission standards, Colorado Mesa University shall offer liberal arts and sciences, professional and technical degree programs and a limited number of graduate programs. Colorado Mesa University shall receive resident credit for two-year course offerings in its commission approved service area.

Institutional Mission Statement

Committed to a personal approach, Colorado Mesa University is a dynamic learning environment that offers abundant opportunities for students and the larger community to grow intellectually, professionally, and personally. By celebrating exceptional teaching, academic excellence, scholarly and creative activities, and by encouraging diversity, critical thinking, and social responsibility, CMU advances the common good of Colorado and beyond.

Program goals

Provide students with the skills and knowledge to become productive employees in the hospitality industry.

Working with business and industry stakeholders to continually enhance the quality and timeliness of technical content.

Program support for other majors/minors and essential learning

Students earning an associate degree in culinary arts or baking and pastry arts are qualified to continue to a bachelor of applied science degree in business administration or hospitality management within the Business Department at CMU. Culinary faculty regularly advise students to consider continuing their studies within one of these programs if their career goals include working in management or entrepreneurship. Since 2009, 24 students have graduated with a BAS degree in Hospitality Management or Business Administration after completing their AAS in Culinary Arts.

Additionally, culinary arts faculty are currently working with faculty within Kinesiology and Nursing to develop an applied nutrition course that would be part of a new or revised minor in personal training. The proposed course has been submitted to the curriculum committee of faculty senate for approval.

The culinary arts department does not currently offer any courses that qualify for essential learning. There have been discussions within the department in the past to give consideration to offering an essential learning course that would fit within the health and wellness requirements. This strategy could be pursued if it has the support of the Kinesiology department and administration. There have also been discussions of developing a multidisciplinary course that would meet the requirements of the essential learning capstone. Possible partners might include biological and physical sciences, business, language and literature, or sociology.

Locational and Comparative Advantage

Western Colorado Community College houses the only culinary arts and baking and pastry degree programs on the Western Slope. Other public institutions offering similar programs include Colorado Mountain College, Pikes Peak Community College, and Pueblo Community College. There are also several private institutions offering culinary programs, all of them in the Denver Metro area.

The availability of campus housing and the campus community of CMU provide a huge advantage in attracting students that are seeking both a career and technical degree and “the college experience.” The geography and outdoor opportunities of the Grand Valley provide further advantage in attracting qualified students from other regions.

The recently added culinary and baking labs were designed to be effective and attractive. They consistently receive high praise in student evaluations. Getting prospective students on campus to see the facilities is a continuing goal of the department.

In general, enrollment has been down in culinary programs throughout the country. The private institutions have suffered most acutely as evidenced by the recent announcement that all

Cordon Bleu campuses in North America would be closed by their parent company. These private schools have struggled with high student loan default rates (an associate degree can cost \$50,000 or more) and are being closely monitored by the federal government. The comparatively low tuition offered by CMU/WCCC is attractive to students and their families.

Unique Characteristics

The culinary department enjoys good will throughout the community, both publicly and professionally, thanks to sustained community outreach including the open-to-the-public dining room, Chez Lena, annually hosting networking events for both the Grand Junction Chamber of Commerce and the Latino Chamber of Commerce, providing food and service for the VIP tent at the Colorado Mountain Winefest, and involvement in numerous non-profit benefits.

The culinary department has embraced the growing trends of sustainability and locally sourced foods. The raised bed gardens and adjacent composting facility operated by environmental science students provide culinary students an opportunity to see these trends in action. Students are able to plant, tend, and harvest vegetables and herbs in the garden then prepare, cook, and serve them in Chez Lena.

Culinary faculty are constantly looking for ways to bring career relevance into the classroom. As an example, every semester students in the purchasing course are required to develop a menu, source ingredients, and determine costs and menu prices that will allow for profitability. They take a field trip to Denver to attend a food show and tour food production facilities so that they can make informed choices as to the ideal products to meet their menu needs.

Curriculum

The curriculum for Culinary Arts and Baking and Pastry Arts is designed to prepare students for a wide variety of employment opportunities including eating and drinking establishments, food and beverage retail outlets, food manufacturing, wholesale operations, and entrepreneurialism. The food and beverage industry as a whole is in a state of continual evolution. Education must be designed to provide students with fundamental skills and theory that can adapt to the changes as they occur.

The curriculum addresses technical and professional workplace skills, critical thinking, and management theory. AAS Graduates of both Culinary Arts and Baking and Pastry Arts are expected to have proficiency in:

- food safety and sanitation
- basic math skills as they relate to food preparation and food cost analysis
- accurate measurement
- knife skills and food preparation
- basic cooking techniques
- basic baking techniques

- food presentation
- storing, preparing, and serving food for optimal nutritional value
- techniques and theory of employee supervision
- food service purchasing including receiving, storing, controlling, and issuing food and beverage products

In addition, AAS graduates in Culinary Arts are expected to have proficiency in:

- theory and techniques of sustainability
- basic fabrication and preparation techniques for meats, poultry, and seafood
- evaluation of wine, spirits, and beer and food pairings
- preparing foods to order in a restaurant setting
- serving foods in a restaurant setting

In addition, AAS graduates in Baking and Pastry Arts are expected to have proficiency in:

- preparing and presenting decorative centerpieces
- preparing a variety of breads
- preparing and presenting a variety of cakes, pastries, and individual desserts
- preparing baked goods for individuals with food allergies
- preparing a variety of chocolates and confections

Curricular Changes

The Culinary Arts faculty regularly review the curriculum with input from their advisory committee. Since the previous program review the following curricular changes have been made to the Culinary Arts AAS degree requirements:

Course deletions and justification:

- CUAR 136 Bartending - replaced by CUAR 179 Wine, Beer, and Spirits
- CUAR 157 Menu Planning – excessive content overlap with other courses
- CUAR 256 Marketing in the Hospitality Industry – students continuing in a Business BAS program required to take a marketing course

Course additions and justification:

- CUAR 100 Culinary Program Fundamentals – provides foundational skills and knowledge, some content was shifted from CUAR 125 and CUAR 145 to allow more time for advanced skills in those courses
- CUAR 115 Introduction to Sustainable Cuisine – sustainable practices and sourcing of local foodstuffs has become of primary importance to the food service industry
- CUAR 179 Wines, Spirits, and Beers – provides knowledge of the manufacturing processes and regional variations in alcoholic beverages as well as the skills required to successfully pair alcoholic beverages with food
- CUAR 245 International Cuisine – provides technical skills and knowledge required to produce foods from a wide variety of cultures (elective course)

- CUAR 251 Advanced Garde Manger – provides additional training in the production of cold foods, particularly cured and smoked meats and sausages and preparations that utilize those products (elective course)
- CUAR 271/272 Techniques of Culinary Competition – provides mastery of culinary production techniques, planning, and organization related to competing in culinary salons. Students compete in sanction student team competitions (elective course)

Degree requirement changes:

- Total credits required for AAS degree reduced from 69 credits to 66 credits
- Six culinary elective credits added to core classes to allow students flexibility to customize their degree to their particular career interests (CUAR 261 Cost Controls and CUAR 281 Internship changed to electives)
- CISB 101 Business Information Technology moved to core classes as an either/or choice with OFAD 118 Intro to PC Application due to the deletion of Applied Studies from essential learning requirements for AAS degrees

Since the previous program review the following curricular changes have been made to the Culinary Arts certificate requirements:

- Total credits required for certificate reduced from 33 credits to 30 credits
- CUAR 100 Culinary Program Fundamentals added to the list of required core classes
- Eligible elective courses updated to reflect the changes in courses outlined in the AAS curriculum above

Since the Baking and Pastry Arts AAS degree and certificate programs were initiated after the last Program Review there are no changes to report.

Program Delivery Locations

Virtually all culinary and baking courses are delivered at the Bishop Campus of WCCC. Approximately 70% of the core classes in Culinary Arts and Baking and Pastry Arts require kitchen/lab facilities. Due to the specialized nature of the required equipment and need for timely critical feedback on student performance the curriculum does not lend itself to distance delivery formats such as online courses. One notable exception is CUAR 101 Food Service Sanitation which is currently being delivered in online and hybrid online/classroom formats.

Analysis of Student Demand and Success

Majors and Graduates

Over the five academic years spanning from 2010-2011 to 2014-2015 there has been an average of 31 Culinary Arts certificate students and 146 Culinary Arts AAS students for a total of 177 students. The Baking and Pastry degree programs began in 2013-2014 with 19 students (16 AAS / 3 certificate) and increased to 37 students in 2014-2015 (30 AAS / 7 certificate.) The total student count was highest in 2011-2012 at 219 students, but fell by about 11% to 195 total student the following year. The 2013-2014 academic year held steady, but was followed by a 15.5% drop in 2014-2015 to 163 total students. An average of 19 AAS degrees and 9 certificates have been awarded per year over the five year period from

2010-2011 to 2014-2015. The number of graduates has consistently risen year over year with 21 AAS degrees and 13 certificates awarded in 2014-2015.

See Appendix A: Majors and Degrees, year by year tables.

Registrations and Student Credit Hours

As would be expected of a certificate / associate degree-level program, virtually all of the student enrollments are at the freshman and sophomore level. Sophomore registrations and student credit hours consistently outpace the same categories for freshman. This is likely due to the fact that recommended course sequencing puts an emphasis on Essential Learning coursework during the freshman year, thus students have less time available for degree-specific course work. The overall numbers reflect the trend in declining enrollment outlined in the previous section.

There are more enrollments in 100 level courses than 200 level courses for every year data was supplied. This can be explained by the fact that there are more 100 level courses than 200 level courses in the Culinary Arts and Baking and Pastry Arts programs. The ratio of 100 to 200 level enrollments is decreasing over time from about 3:1 in 2010-2011 to 1.5:1 in 2014-2015. When paired with the data on the number of graduates increasing and overall enrollments declining this could indicate an overall higher completion rate.

See Appendix B : Registrations and Student Credit Hours, year by year tables

Student Success and Recognitions

In 2012-2013 two elective courses were added to the curriculum: CUAR 271 - Culinary Competition-Hot Food and CUAR 272 – Culinary Competition-Cold Food. Since that time the WCCC Culinary Arts junior competition team has won the state competition and gone on to regional competition three years in a row. The competitions are sanctioned by the American Culinary Federation and take place at the local, state, regional, and national level. A team must win at each level to move on to the next level. In 2014 the team travelled to Oakland, CA and earned a silver medal. In 2015 the team travelled to Las Vegas, NV and earned a bronze medal. One member from the 2015 team, George McLennan, was invited to cook at The Masters Golf Tournament just a few weeks after returning from the regional event. Mr. McLennan has returned this year and is serving as the captain of the team. In fact, there are three returning members on the team, two of which have experience at the regional level. The current team will be travelling to Reno, NV in February 2016 with hopes of earning an elusive gold medal.

Potential For Growth

In 2013-2014 a new introductory course CUAR 100 Culinary Program Fundamentals was added to the curriculum. The purpose of the course is to give students a solid base of knowledge in professionalism, culinary math, basic culinary skills, and lab procedures. The course also allowed some basic instruction to be transferred from introductory lab courses to this classroom based course so that more time could be spent in labs on student mastery of techniques and applications. Originally the course was set up as a prerequisite to the lab courses. While this course resulted in making the students that completed it better prepared for their remaining courses, it had the unintended effect of “weeding out” students that became disengaged during a semester of nothing but lecture coursework. This change was a contributing factor to decreasing course enrollments over the past two years. Once the problem was

detected the course was redesigned and changed to a corequisite to the introductory lab courses. This change should have a positive effect on student retention.

The Culinary Arts program will begin offering concurrent enrollment to School District 51 students beginning in the Fall 2016 semester. There has been a great deal of initial interest during the annual high school sophomore tours that bring every district sophomore to the WCCC campus. The current plan is to offer two sections with a maximum availability for 32 students and the expectation that it will be at full enrollment. Students in this program will be earning college credits that can be part of a certificate or associate degree in either Culinary Arts or Baking and Pastry Arts. A primary focus of this program will be recruiting and retaining these students to complete degrees after high school graduation.

In coordination with the Kineisiology and Health Sciences departments, the Culinary Arts department has a new 3-credit course in the approval process. The course, CUAR 220 Techniques of Healthy Cooking, will be a required course for new minor degrees being developed in Kineisiology and Nursing. The course will be a “hands-on” lecture/lab course designed for non-culinary arts majors that will focus on how to modify recipes and prepare foods using techniques that promote flavorful foods and healthful eating. Students that complete the course will be able to coach, mentor, and train clients in healthy eating habits. If two sections are added per year with a maximum enrollment of 16 students each, the course has the potential of adding 3+ full-time equivalent students per year to the Culinary Arts program.

Program Resources

Faculty

The Culinary Arts department consists of three full-time faculty, one three-quarter time faculty, and seven part-time faculty. The expertise of the faculty ranges from technical culinary and pastry skills, to restaurant and hospitality management, nutrition, workforce supervision, food safety, wine and beverage programs, and sustainability practices. In the course of earning a degree, students come in contact with over 200 years of collective food and beverage industry experience.

The nature of culinary education requires small class sizes in general. The ration of full-time equivalent student to full-time equivalent faculty has hovered in the area of 11 or 12 to 1. In recent years (2012-2013 to 2014-2015) that ratio has declined due to an increase in staffing to teach the new Baking and Pastry program and a near simultaneous decrease in student credit hours. For 2014-2015 the ratio is at 6.8 FTE students to 1 FTE faculty.

See Appendix C: FTES:FTEF Ratio

Both course credit hours and student credit hours are typically fairly evenly split between full-time and part-time faculty. The course credit hour load shifted heavily to part time in 2013-2014 and reversed to full-time in 2014-2015. This can be explained by the fact that the Baking and Pastry program began with the 2013-2014 academic year, but a successful search for a full-time Baking and Pastry faculty member was not completed until the beginning of the 2014-2015 academic year. Thus, the first year of the program was taught entirely by part-time

faculty. The student credit hours are split about 52/48 in favor of full-time faculty with the exception of that 2013-2014 academic year when the delivery of baking and pastry courses by part-time faculty shifted the balance to 37% full time, 63% part-time.

See Appendix D: Credit Hours by Faculty Type

Financial Information

From the 2012-2013 academic year to the 2014-2015 academic year the program costs per credit hour rose by nearly 34%. This alarmingly high increase is a function of both an increase in costs and a decrease in credit hour generation. Faculty expenses rose significantly over the two most recent reporting cycles due to the inception of the Pastry and Baking Arts degree path in 2013 and subsequent hiring of additional full-time and part-time faculty to deliver the program. Direct program expenses per credit hour increased sharply from 2013-2014 to 2014-2015. This is most likely a function of one-time expenses related to the start up of the Baking and Pastry program. It is expected that direct program expenses should see a modest decline in 2015-2016.

Although enrollment in the Baking and Pastry program is in line with projected growth for the new program, Culinary Arts degree enrollment has decreased. Either enrollments must increase, expenses decrease, or a combination of the two. The preference of the Culinary Arts department would be an increase in enrollment. To that end, plans are being made for every full-time faculty member to make at least one recruiting trip to high school culinary programs during the spring of 2016. With significant increases in enrollment and containment of expenses it is possible for the cost per credit hour to return to 2013-2014 levels.

See Appendix E: Culinary Arts Revenue and Expenses and Appendix F: Projected Cost per Credit Hour

Library Assessment

I. Collection Assessment:

A. Reference Support: A search of the Tomlinson Library catalog for reference items appropriate to the Culinary Arts program resulted in only five (5) reference titles, including:

- Labensky, S., Ingram, G. G., & Labensky, S. R. (2001). *Webster's new world dictionary of culinary arts*. 2nd ed. Upper Saddle River, NJ: Prentice Hall.
- Pizam, A., & Holcomb, J. (2008). *International dictionary of hospitality management*. Amsterdam; Boston: Elsevier/Butterworth-Heinemann.
- Pizam, A. (2005). *International encyclopedia of hospitality management*. Boston, Mass.: Elsevier.

B. Monographic Resources: The following table displays a view of representative results found when searching the Tomlinson Library catalog for relevant Culinary Arts content. It

displays the number of titles since 2000 (for print items) and the number of items found for print and/or electronic items.

Search tactic:	Print Books	e-Books
"cooking" (keyword) AND cooking (subject)	122 (34 since 2000)	16
"food preparation" (keyword)	5 (3 since 2000)	7
food AND sanitation (keyword)	17 (5 since 2000)	23
food AND safety (keywords)	44 (32 since 2000; non-gov't docs)	244
"hospitality industry" (keywords)	20 (12 since 2000)	20
Recipes OR cookbook (keyword) AND Cooking (subject)	183 (45 since 2000)	117

Monographic titles of interest include:

(Titles are **bold**; e-book titles in **green**)

- Herbst, S. T. (2001). *The new food lover's companion: Comprehensive definitions of nearly 6,000 food, drink, and culinary terms*. 3rd ed. Hauppauge, NY: Barron's Educational Series.
- Spencer, G. (2002). *Recipes for reading: Hands-on literature-based cooking activities*. Worthington, OH: Linworth Pub.
- Johnson, C., Johnson, B., & Johnson, T. (2006). *Savor Colorado mountains & Western Slope cookbook: Colorado's finest restaurants & lodges, their recipes and their histories*. Belgrade, Mont.: Wilderness Adventures Press.
- Leonard, E. G., & American Culinary Federation. (2006). *American Culinary Federation's guide to culinary competitions: Cooking to win!* Hoboken, N.J.: Wiley.
- Witherspoon, K., & Friedman, A. (2005). *Don't try this at home: Culinary catastrophes from the world's greatest chefs*. 1st U.S. ed. New York: Bloomsbury.
- Culinary Institute of America. (2008). *In the hands of a chef: The professional chef's guide to essential kitchen tools*. Hoboken, N.J.: Wiley.
- Meitus, M. (2009). *Recipe please: Favorite recipes from Colorado restaurants : from the popular column in the Rocky Mountain news*. Rev. and updated. Boulder, CO: Johnson Books.
- Page, K., & Dornenburg, A. (2008). *The flavor bible: The essential guide to culinary creativity, based on the wisdom of America's most imaginative chefs*. New York: Little, Brown and Co.
- Friedman, A., & Bocuse d'Or (Competition). (2009). *Knives at dawn: America's quest for culinary glory at the legendary Bocuse d'Or competition*. 1st Free Press hardcover ed. New York: Free Press.
- Bitterman, M., & Martine, J. (2010). *Salted: A manifesto on the world's most essential mineral, with recipes*. Berkeley [Calif.]: Ten Speed Press.
- Myhrvold, N., Young, C., Bilet, M., & Smith, R. M. (2011). *Modernist cuisine: The art and science of cooking*. Bellevue, WA: Cooking Lab.
- Cazor, A., & Lienard, C. (2012). *Molecular cuisine: Twenty techniques, forty recipes*. Boca Raton: CRC Press.
- Davis, J. J. (2013). *Defining culinary authority: The transformation of cooking in France, 1650-1830*. Louisiana State University Press.

- Kirsch, A. (2012). *Entertaining: Recipes and inspirations for gathering with family and friends*. John Wiley & Sons.
- Scharnhorst, G. (2014). *Literary eats: Emily Dickinson's gingerbread, Ernest Hemingway's picadillo, Eudora Welty's onion pie, and 400+ other recipes from American authors past and present*. McFarland & Company, Inc., Publishers.
- Bourland, C. T., & Vogt, G. (2010). *The astronaut's cookbook: Tales, recipes, and more*. Springer.
- Deutsch, J., & Murakhver, N. (2012). *They eat that?: A cultural encyclopedia of weird and exotic food from around the world*. Abc-CLIO.
- Horsman, R. (2008). *Feast or famine: Food and drink in American westward expansion*. Columbia: University of Missouri Press.
- Vaclavik, V., Christian, E. W. (2014). *Essentials of food science*. Fourth edition. Springer.
- Marriott, N. G., Gravani, R. B. (2006). *Principles of food sanitation*. 5th ed. Springer.
- Lewis, M., Bamforth, C. W. (2006). *Essays in brewing science*. Springer.
- Gomez-Lopez, V. M. (2012). *Decontamination of fresh and minimally processed produce*. Blackwell Pub.
- Goff, H. D., Hartel, R. W. (2013). *Ice cream*. 7th ed. Springer.
- Puckett, R. P. (2013). *Foodservice manual for health care institutions*. 4th ed. Jossey-Bass.
- Collins, D. S., & Huey, R. J. (2015). *Gracey's meat hygiene*. Eleventh edition. Wiley Blackwell.
- McElhatton, A., & Marshall, R. J. (2007). *Food safety: A practical and case study approach*. Springer.
- Genoways, T. (2014). *The chain: Farm, factory, and the fate of our food*. First edition. New York, NY: Harper, an imprint of HarperCollins Publishers.
- Miller, D. A. (2014). *Pesticides*. Farmington Hills, Mich.: Greenhaven Press, a part of Gale, Cengage Learning.
- Miller, D. A. (2013). *Factory farming*. Detroit: Greenhaven Press, a part of Gale, Cengage Learning.
- Tutelian, V. A. (2013). *Genetically modified food sources: Safety assessment and control*. London; Waltham, MA: Elsevier, Academic Press.
- American Society for Microbiology. Jaykus, L., Wang, H. H., & Schlesinger, L. S. (2009). *Food-borne microbes: Shaping the host ecosystem*. Washington, D.C.: ASM Press.
- Shewfelt, R. L. (2009). *Introducing food science*. Boca Raton: CRC Press.
- Satin, M. (2008). *Food alert!: The ultimate sourcebook for food safety*. 2nd ed. New York, NY: Facts On File.
- Keller, T. (2008). *Under pressure: cooking sous vide*. New York, NY: Artisan.
- Forsythe, S. J. (. J. (2000). *The microbiology of safe food*. Oxford; Malden, MA: Blackwell Science.
- Neff, R. (2015). *Introduction to the US food system: Public health, environment, and equity*. Jossey-Bass.
- Barone, C. (2015). *Food packaging hygiene*. Springer.
- Gurnari, G. (2015). *Safety protocols in the food industry and emerging concerns*. Springer.
- Yiannas, F. (2015). *Food safety = behavior: 30 proven techniques to enhance employee compliance*. Springer.
- Feinstein, A. H., & Stefanelli, J. M. (2010). *Purchasing for chefs: A concise guide*. 2nd ed. Hoboken, N.J.: Wiley.
- Burns, J. B. (2010). *Career opportunities in travel and hospitality*. New York: Ferguson.
- Jorgensen, A. S. (2003). *Restaurant marketing and advertising: For just a few dollars a day*. Ocala, Fla.: Atlantic Pub. Group.
- Lane, C. (2014). *Cultivation of taste: Chefs and the organization of fine dining*. Oxford University Press.
- Sidali, K. L., Spiller, A., & Schulze, B. (2011). *Food, agri-culture and tourism: Linking local gastronomy and rural tourism: interdisciplinary perspectives*. Springer.
- Batali, M., & Webster, J. (2014). *America farm to table: Simple, delicious recipes celebrating local farmers*. First edition. New York: Grand Central Life & Style.
- National Restaurant Association (U.S.). (2013). *Principles of food and beverage management*. 2nd ed. Boston: Pearson.
- Pollan, M. (2013). *Cooked: A natural history of transformation*. New York: The Penguin Press.
- Drummond, R. (2013). *The pioneer woman cooks: A year of holidays: 140 step-by-step recipes for simple, scrumptious celebrations*. First edition. New York, NY: William Morrow, an imprint of HarperCollins Publishers.

- Obama, M. (2012). *American grown: The story of the White House kitchen garden and gardens across America*. New York: Crown Publishers.
- Cazor, A., Lienard, C., & Alinat, G. (2012). *My molecular cuisine kit: 28 recipes*. [Boca Raton, FL]: CRC Press.
- Giellisse, V., & De Santis, R. (2011). *Modern batch cookery*. Hoboken, N.J.: John Wiley & Sons.
- Pierson, J., Ramos, A., & Pineda, J. (2011). *Candle 79 cookbook: Modern vegan classics from New York's premier sustainable restaurant*. Berkeley: Ten Speed Press.
- Waters, A. (2010). *In the green kitchen: Techniques to learn by heart*. New York: Clarkson Potter/Publishers.
- Madison, D. (2010). *Seasonal fruit desserts from orchard, farm, and market*. New York: Broadway Books.
- Smilow, R., & McBride, A. E. (2010). *Culinary careers: How to get your dream job in food with advice from top culinary professionals*. New York: Clarkson Potter.
- Faino, C., & Hazledine, D. (2010). *Colorado bed & breakfast cookbook: Recipes from the warmth & hospitality of Colorado B & Bs, historic inns, and mountain resorts*. Boulder, CO: 3D Press.
- Newgent, J. (2009). *Big green cookbook: Hundreds of planet-pleasing recipes & tips for a luscious, low-carbon lifestyle*. Hoboken, N.J.: John Wiley & Sons.
- Carroll, R. (2002). *Home cheese making: recipes for 75 homemade cheeses*. 3rd ed. North Adams, MA: Storey Books.
- Johns, P. S. *50 Great Pasta Sauces*. Andrews McMeel Publishing LLC.
- Kramis, S., Burggraaf, C., & Kramis Hearne, J. *The Cast Iron Skillet Cookbook*. Sasquatch Books.
- Gooseberry Patch. *Fresh from the Farmstand Cookbook*. Gooseberry Patch.
- Gooseberry Patch. *101 Soup, Salad & Sandwich Recipes*. Gooseberry Patch.
- Foley, R. *Bartending for Dummies*. Wiley.
- Casella, C., Legato, S., & Green, A. *Making Artisan Pasta*. Rockport Publishers.

NOTE: If there is a desired item that we can loan from another institution, because our copy is checked out or we do not currently own the item, we will do so, and gladly. Books, and other items, physically delivered from other institutions are free to students, staff, and faculty at CMU and provides valuable support for those engaged in research and scholarship. **Interlibrary loan** of books and other non-article/non-chapter content takes 3-5 days on average, which is not overly long but which does underscore the importance of the Library building strong monographic support for Culinary Arts course sections as much as possible. Our interlibrary loan service can also aid the Library in assessing frequently requested items for appropriate additions to our collection.

C. Periodicals: A search of the CMU Tomlinson Library collection of print and electronic periodical subscriptions highlights a number of very relevant titles. We show journals and other periodicals for the subjects "Culinary Arts," "Food," "Hospitality Management," and more. A selection of useful titles for Culinary Arts to which we subscribe include:

- *Appetite* (Science Direct, 1993-current)
- *Food Reviews International* (Academic Search Complete, 2000-current, 18-month embargo)
- *Food Science and Technology International* (Sage, 1999-current)
- *Journal of Food Science* (Wiley Online Library, 1936-current; Academic Search Complete, 2007-current, 12-month embargo)
- *Journal of Food Biochemistry* (Wiley Online Library, 1977-current; Business Source Complete, 2004-current, 12-month embargo)

- *Journal of Food Safety* (Wiley Online Library, 1977-current; Academic Search Complete, 2004-current, 12-month embargo)
- *Journal of Sensory Studies* (Wiley Online Library, 1986-current; Academic Search Complete, 2004-current, 12-month embargo)
- *Beverage Industry* (Business Source Complete, 1993-current)
- *Candy Industry* (Business Source Complete, 1993-current)
- *Comprehensive Reviews in Food Science and Food Safety* (Wiley Online Library, 2002-current)
- *Emerging Food R&D Report* (Business Source Complete, 2009-current)
- *Food Management* (Business Source Complete, 2000-current)
- *Gourmet Retailer* (Business Source Complete, 2000-current)
- *Nation's Restaurant News* (Business Source Complete, 1994-current)
- *Progressive Grocer* (Business Source Complete, 1996-current)
- *Restaurant Business* (Business Source Complete, 1995-current)
- *Restaurant Hospitality* (Business Source Complete, 1993-current)
- *Specialty Coffee Retailer* (Business Source Complete, 2011-current)
- *Vegetarian Journal* (Consumer Health Complete, 2004-current)
- *Flavour* (DOAJ, 2012-current)

NOTE: For periodicals to which we do not subscribe and/or articles for which we do not offer full-text access, **Interlibrary loan** is a quick, efficient, and useful supplement to our collections, as well, with an average turn-around time of just 11 hours for articles. Such fast request-to-delivery times greatly aid students in their information needs being addressed and processed as close to the time of need as possible. As students often work close to deadlines so must our services work as favorably with those deadlines as they can.

D. Electronic Resources:

Business Source Complete [searched: cooking OR "culinary arts" or "hospitality management" OR restauranteur] – over 78,000 search results, nearly 60,000 of which were published since 2000 and are available full-text. Publications returning a significant number of full-text available results include: *Nation's Restaurant News*; *Caterer & Hotelkeeper*; *Foodservice Director*; *Restaurant Business*; *Restaurant Hospitality*; *Food Management*; and *Gourmet Retailer*.

Academic Search Complete [searched: cooking OR "culinary arts" or "hospitality management" OR restauranteur] – over 85,000 search results returned, of which over 23,000 of from scholarly/peer reviewed publications and over 57,000 are available full-text. Publications returning a significant number of full-text available results include: *The New York Times*; *The Wall Street Journal*; *Vegetarian Times*; *Good Housekeeping*; and the *Journal of Food Science*.

Wiley Online Library [searched: cooking OR "culinary arts" or "hospitality management" OR restauranteur OR "food safety"] – over 300,000 results published between 2000 and 2015 (and 250,000 are from journals). Journal titles from these full-text available results

include: the *Journal of the Science of Food and Agriculture*; the *Dictionary of Flavors*; *The Microbiological Safety of Food in Healthcare Settings*; the *Journal of Food Safety*; the *Journal of Food Science*; *Foodservice Research International*; the *Journal of Food Science Education*; *Food Service Technology*; *Comprehensive Reviews in Food Science and Food Safety*; and many more.

ProQuest Newspapers [searched: cooking OR "culinary arts" or "hospitality management" OR restaurateur OR "food safety"] – over 135,000 full-text search results (nearly 35,000 published since 2010) from the *New York Times*, *The Washington Post*, the *Los Angeles Times*, *Wall Street Journal*, *The Christian Science Monitor*, *New York Times Magazine*, *New York Times (Online)*, *New York Times Book Review*, and *WSJ : the Magazine from the Wall Street Journal*.

NOTE: For periodicals to which we do not subscribe and/or articles for which we do not offer full-text access, **Interlibrary loan** is a quick, efficient, and useful supplement to our collections, as well, with an average turn-around time of just 11 hours for articles. Such fast request-to-delivery times greatly aid students in their information needs being addressed and processed as close to the time of need as possible. As students often work close to deadlines so must our services work as favorably with those deadlines as they can.

E. Films on Demand (eVideos)

Tomlinson Library subscribes to Films on Demand, an educational video resource, which has videos and video segments available through our catalog as eVideos that can be viewed 24/7 and/or embedded into D2L course pages. eVideos of potential interest to Culinary Arts students and/or instructors may include:

- *Fats: Friends or Foes?* (15 mins.)
- *Selecting and Storing Fruits and Vegetables.* (12 mins.)
- *Safety and Sanitation.* (10 mins.)
- *Safe and Sanitary Dishwashing.* (13 mins.)
- *Food labels: Misleading due to misreading.* (5 mins.)
- *All About Food Additives* (20 mins.)
- *Investigating food additives.* (23 mins.)
- *Safety in the Kitchen.* (23 mins.)
- *Sugar Overload: Corporate Profits vs. Public Health.* (55 mins.)
- *Food matters: Diet and disease.* (52 mins.)
- *Designing Menus for Healthy Diets.* (23 mins.)
- *Choosing and Planning Meals for the Person with Diabetes.* (27 mins.)
- *How we eat: From birth to death.* (53 mins.)
- *Life in the fast food lane.* (20 mins.)
- *Nutrition and Eating Disorders.* (30 mins.)
- *Why are thin people not fat?* (51 mins.)

II. Evaluation of the Total Collection:

- a. **Strengths:** The Library's reference collection for Culinary Arts content is likely slim for good reason (the extent to which students and faculty will need and use reference content for this subject area). With regard to monographic content, though, the collection should meet a wide variety of student needs within the Culinary Arts program, both in terms of the breadth of topics covered and access to print and electronic items. Finally, regarding electronic resources and periodical content, we have a useful breadth of content here, too, due in part to our Business-related subscriptions which have useful retail, restaurant, and hospitality-related content within them.
- b. **Weaknesses:** There are no true areas of weakness within the collection, though consistent efforts should always be made to collect relevant content addressing shifts/growth in the culinary arts field, changes in the Culinary Arts program curriculum, and access to electronic items with images as well as to print items.

III. **Recommendations:** Based on the findings in this assessment, the library liaison to Culinary Arts recommends no particular changes to the nature of collection for the Culinary Arts program, other than general maintenance – weeding no-longer-relevant titles, seeking new avenues for collection to support new/reconfigured program courses, and working with department faculty to acquire titles of high interest.

IV. Library Research Support Statement:

The Library can offer research support for specific courses – through **instructional sessions** (how to access and use our research tools, how to evaluate information and sources, how to use information ethically, etc.) as well as through an “**embedded librarian**” in the D2L environments of course sections. The Library can also create **research / course guides** for course sections, and entire subjects (i.e., Computer Information Systems) – tailoring links, tools, e-reserve access, and more to the students and the topic of that section, course, or subject area.

Culinary Arts instructors can make use of any/all of these options and the Library is interested in investigating customized possibilities with them.

Physical Facilities

At about the time of the last Program Review the Culinary Arts department put together a proposal to expand facilities and implement a Baking and Pastry Arts degree program. The proposal was approved and funded by administration. Renovation began in the summer of 2012 with the demolition of approximately 4000 square feet of what was previously classroom and office space. The culinary lab was completed first and opened in January of 2013. The baking lab opened in August of the same year. The new labs were designed to be highly

functional and allow each student space and equipment to work individually and demonstrate his or her ability to perform the competencies required for each program. Some design features are readily apparent, such as windows that allow visitors to see into each lab and observe the class activities. Other features are less apparent, but make great contributions to student learning, such as keeping open sight lines and locating all refrigeration compressors on the roof to minimize ambient noise in the lab.

The design and construction of the new facilities have allowed students to work more efficiently than they did in the previous labs. Instructors have noticed an increase in the day-to-day productivity and are consequently able to add more content and exposure to the courses taught in those labs. Both of the new labs contain state of the art equipment. The baking lab includes commercial mixers, a deck oven, a rotary oven, a proofer/retarder, a dough sheeter, large work tables, and many pieces of small specialized equipment. The culinary lab gives each student an individual work area with range, grill, refrigeration, and counter space. Larger equipment in the culinary lab includes a combi oven, smoker, steam kettle, and deep fryers.

While the new labs are very functional and have been well-received by students and faculty alike, it is important to note that the original facilities are beginning to show their age. The culinary program began in 1998 and many of the original pieces of equipment are still in use 18 years later. A replacement schedule needs to be put into effect to allow students in all courses to work with state of the industry equipment, ensure that operational budgets are not hampered by undue utility and repair expenses, and maintain a safe flow of food from the kitchen to consumer. Highest priority needs to be given to replacing outdated, inefficient, and failing equipment. Refrigeration and dishwashing equipment would likely top that list.

Additionally, consideration should be given to remodeling the Chez Lena dining room and kitchen to improve student visibility to the dining public, project a more professional image, and make more efficient use of the space. Lack of storage space, inability to secure lab areas, and student ingress/egress are all issues that could also be address by a professional redesign of the original lab areas.

Instructional Technology and Equipment

When the new kitchen labs were designed and built instructional technology was an integral part of the process. Each lab features large ceiling-mounted flat screen monitors in the instructor demonstration area and smaller monitors throughout each room. The monitors have the capability of showing computer presentations and recipes, videos, and camera shots of instructor demonstrations. Each lab also features wireless microphones so that instructors do not have to shout instructions to their students. The students and faculty have found the technology to be a key enhancement of the new facilities. Faculty in these labs have embrace the use of technology in their lesson planning, presentations, and student interactions. The recent addition of Panopto lecture capture capabilities has huge potential in culinary classes. It is recommended that the cameras in the labs be replaced with cameras that have Panopto

capabilities so that demonstrations can be easily recorded and posted on D2L for student review.

Similarly to the physical facilities referenced above, considerations need to be given to bringing technology into the original culinary labs. The technology of the older culinary lab is limited to a mirror over a table. This lab could benefit from a computer, demonstration cameras, and view screens as described above. The Chez Lena dining room does make use of a computer POS system for order taking and sales management. The system needs to be tied into OpenTable so that customers will have the capability of making reservations online.

Operational Efficiencies

The addition of an on-site garden and compost facility has allowed the program to reduce the need purchase fresh herbs, greens and some vegetables all while reducing the amount of waste that must be hauled away.

Faculty are utilizing menu planning and ordering software to increase efficiency and more precisely order products needed for lab instruction.

Whenever possible, products made in introductory lab courses are utilized in the Chez Lena dining room, either on the menu or by being placed on display for take out purchase. Items being placed in the take out display case include, cakes, pastries, and cookies from the bake shop and soups, salads, and entrees from the culinary lab.

Student Learning Outcomes

- **Outcome #1** Prepare food products to specified quality standards of safe food handling, flavor development, doneness, presentation, and timeliness. (Specialized knowledge/Applied learning)
- **Outcome # 2** Apply appropriate mathematical concepts to the field of culinary arts as a basis for menu planning, purchasing, and recipe conversion. (Quantitative fluency)
- **Outcome #3** Explain key ingredients, preparation methods, and faults that occur in menu items. (Communication Fluency)
- **Outcome #4** Develop strategies for production and sales of food products based on the needs of an organization and its clientele. (Critical Thinking)

These student learning outcomes were selected by the members of the culinary department to accurately reflect the skill sets and standards required in an ever-changing food and beverage industry. Outcome 1 measures the student's abilities to execute the required fundamental skill sets in a safe environment. While the specific outcome is assessed in CUAR 129 Center of the Plate, there are other current core classes offered in the degree that emphasize and reinforce these values. Core classes are listed in table 1. Outcome 2 measures the student's ability to use fundamental mathematics in an applied environment specifically with an emphasis upon management skill sets. Calculation of costs and prices to insure adequate profit margins, management of the purchasing process and correct calculations required for recipe explosions

are required elements of this SLO. Outcome 2 is measured in CUAR 100, Culinary Program Fundamentals. A significant portion of this class engages students in a variety of mathematical exercises that are designed using specific data applicable to the food and beverage industry. Examples include catering menus, buffets, banquet menus and recipe conversions, etc. Outcome 3 is measured in CUAR 129. Using an oral assessment, the culinary arts team measures the student’s abilities in communication fluency. Students are required to prepare an oral presentation describing a process or a product used in class and deliver the presentation to the instructor and their colleagues. Outcome 4 is measured in CUAR 262 Purchasing as part of a comprehensive project. Student design and develop a restaurant menu of their choice. Elements include menu design, recipe selection, food cost projections, menu pricing, concept development and product sourcing. The culinary arts core curriculum reinforces the institution’s objectives and SLO’s. Specific assessments were selected that complimented both the technical nature of the disciplines within the food and beverage industry and the academic trajectory prescribed by the institutional leadership.

Table 1:	Course number	Description	Credits
Cuar	100	Culinary fundamentals	3
Cuar	101	Food safety and sanitation	2
Cuar	115	Intro to sustainable cuisine	3
Cuar	125	Intro to hot foods	4
Cuar	129	Center of the plate	4
Cuar	145	Intro to baking	4
Cuar	156	Nutrition for the hospitality industry	3
Cuar	179	Wines, spirits, beers	3
Cuar	190	Dining room management	4
Cuar	233	Advanced line prep & cookery	4
Cuar	255	Supervision in the hospitality industry	3
Cuar	262	Purchasing for the hospitality industry	3
Cuar	245	International cuisine	3
Cuar	251	Advanced garde manger	3
Cuar	271	Culinary competitions hot	3
Cuar	272	Culinary competitions cold	3
Cuar	281	Internship	1-6

The data retrieved from the assessment of students indicates that the culinary arts program is performing adequately. Informal observation and assessment has long been a part of the culinary team’s philosophy. Relatively new data has become available via the SLO’s and the routine tracking and monitoring of objectives, providing information the faculty members can use to increase student learning and performance in key areas. However, informal student and employer polls show general to extreme satisfaction with the resulting education of students in the culinary arts program and with the institution in general. Approximately 40% of graduating

students transfer into the BAS hospitality program at CMU to pursue an advanced degree. Many students move on to very positive positions in a variety of venues. We have students employed in Whole Foods grocery chains, white tablecloth restaurants in Hawaii and other parts of the country, we have students pursuing international travel for advanced training abroad and we have students who stay in the local community adding value to the local food and beverage industry. All of these students indicate an educational process that is meeting program, industry and institutional objectives.

No program improvements resulting from assessment of SLO's have occurred to date. As previously stated, implementation of SLO's is a relatively new process for the culinary arts program. Initial data collected has identified improvements to be made, however, general data collected confirms the positive actions the department has taken to ensure the quality of the educational process.

Future Program Plans

Vision for Program

The faculty of the Culinary Arts and Baking and Pastry Arts program firmly believe that students are being provided with an economically competitive, high-quality education. In order for that to continue to be the case, we must continually monitor industry trends to supply students with the essential skills they will need to be attractive to employers and successful in their careers. Some potential industry disruptors and ways they can be addressed in the curriculum are listed below:

Consumer resistance to "chemicals", GMO's, and additives is increasing.	Address these topics including definitions and health concerns as appropriate in Culinary Nutrition and Purchasing courses.
Consumers are eating more vegetables and fewer animal-based proteins.	Adjust curriculum in Center of the Plate and Advanced Line Cooking to give students more exposure to meat-free or meat-as-a-garnish meals.
The trend towards higher minimum wages may lead to a decline in consumers eating out, fewer restaurants, and fewer jobs available.	Continually reinforce to students the economic importance of being efficient and adding value through their work skills. Give students the ability to explain their value in the job interview process.
Consumers are eating fewer meals and snacking more.	Focus students on "building flavor" as they cook and decreasing portion size to fit consumer desires.

Source: <http://restaurant-hospitality.com/trends/11-trends-will-impact-restaurants-2016>

The program needs to grow to about 2800 student credit hours in order to be sustainable in its present form. That is where enrollments were about three years ago. Several factors led to a

drop in enrollment including economic recovery, a strategic mistake in course sequencing, and a misguided belief that the new culinary labs would “sell themselves.” Recessions seem to always lead to an increase in enrollment when people can’t find jobs. When the economy turns around more people go directly into the workforce. A strong recruitment program is more important than ever as the economy recovers. More on that in a moment. The course sequencing issue that kept students out of the culinary labs has been addressed and should lead to an increase in retention. As a program, we need to increase our efforts in recruitment of new students. Traditionally recruitment, especially of high school culinary students, was handled by Dan Kirby. Mr. Kirby transitioned to three-quarter time employment so each of the remaining full-time faculty must take a greater role in recruiting. This spring each full-time faculty member will make a recruiting trip with Mr. Kirby to meet the high school instructors and learn his recruiting methods that have proved successful in the past.

Beginning in the Fall of 2016, we will begin a concurrent enrollment program for School District 51 high school students. Students will earn 10 credits over the academic year that can then be applied towards a certificate or AAS degree. These students will immediately increase enrollment, but will also be encouraged to continue after high school graduation.

A new course, Techniques of Healthy Cooking, is being designed and developed especially for non-culinary major students. The course will be part of a minor degree for both Kinesiology and Health Sciences, but should also be marketed to all students that have the need for elective credits. This course could and should have broad appeal across many disciplines.

When combined, these efforts should make the Culinary Department sustainable and valuable to both students and the institution.

Strengths and Challenges Facing Program

A discussion of strengths and challenges of the culinary program necessitates looking at the market in which we operate. At the beginning of the year 2015 there were nine culinary arts programs and two cooking schools in Colorado. Competition for student enrollment is very high and aggressive marketing efforts have become the norm. A list of program strengths includes:

- Residential campus: The only other school in the state that offers a true residential campus with housing, meal plan, sports, clubs and college culture is Johnson and Wales. Other schools offer only assistance in finding rental housing in adjacent areas.
- Facilities: WCCC completed the construction of a new cooking skills lab and a baking and pastry lab in 2013 that feature some of the most advanced commercial equipment and media capability in the Rocky Mountain region, including flat screens at all of the 32 individual cooking and baking stations.
- Certificate, AAS, and BAS Degree options: Certificates of Occupational Proficiency and AAS Degrees are offered in both culinary arts and baking and pastry. AAS

completers have the option of enrolling in a BAS Degree in either Hospitality Management or Business Administration at CMU

- Faculty: Faculty members include 2012-13 Colorado Chef of the Year Jonathan St. Peter, CEC, CCE, Past President and current Board of Directors of the Colorado Chefs Association Wayne Smith, CEC, CCE, Colorado Restaurant Association former board member, chapter president and 2013 Regional Outstanding Professional award winner Daniel Kirby, CHE, former owner of the Cake Cottage of Grand Jct. for 17 years Debra Henderson, former owner of Drake's Restaurant in Ridgeway, CO. for 10 years Drake Pullium, Certified Wine Sommelier Jill Youll, and five other talented former business owners and managers teaching part time.
- Small student to faculty ratios in both labs and lecture classes.
- Tuition that is only a third the cost of a comparable private culinary school.
- Sustainable Cuisine course provides students hands-on farm-to-table experience.

Challenges Facing Program

- A robust Colorado economy has driven a building boom in the restaurant industry over the past few years and is driving potential students into the workforce.
- Ambivalence within the industry concerning the need for formal education.
- Well-funded marketing efforts by competing schools.
- Inadequate funding for marketing and advertising.
- Low brand awareness, even in Mesa County.
- Limited scholarship opportunities available.

Trends in the Discipline That Could Affect Future Planning

- Although the U.S. Bureau of Labor Statistics predicts only a 4 % increase (slower than average) in the number of jobs for cooks between 2014-2024, the projected need for Chefs and Head Cooks is 9% (higher than average).
- The federal government has cracked down on national, for-profit culinary schools for high student loan default rates and over-promising employment compensation, resulting in the announced closure of the Cordon Bleu chain. Bad press from this process over the past few years has had a negative effect on enrollments to culinary schools in general, but with targeted marketing could be turned to an advantage to state schools.

Improvement Through Review

The Culinary Arts Department looks forward to suggestions for improvement through the review process. As outlined earlier, many recommendations from the previous program review were acted on. The last review led to improvements in facilities, new degree offerings, and changes in strategic thinking such as the increased use of social media to reach out to the public.

Program Challenges and Potential Resources

One of the biggest challenges and a characteristic that is somewhat unique to a culinary program is the perishable nature of the materials needed for lab training. Faculty members expend a considerable amount of time ordering, receiving, stocking, and issuing product before each lab class then returning unused items to storage, rotating product, and finding outlets for products made in the lab. An effort should be made to identify a software solution that could streamline the process and increase efficiency in ordering and product usage.

The Culinary Arts faculty and administration need to have a strategic discussion about the role of Chez Lena in both the program and the institution. That discussion should begin with the course objectives of Advanced Line Cooking and Dining Room Management. Past administrations have viewed the restaurant as a centerpiece and public interface of the campus. That may no longer be the case. We need to be clear on what is the purpose of the dining room and what goals is it trying to achieve. If those goals fall strictly within the realm of education, then we need to review whether or not we are meeting those goals in the best way possible. A strategic process will help us determine what is the function of Chez Lena. Once we know what Chez Lena should be we can address how to best function by reviewing hours of operation, design and layout, marketing, menu style, and even location.

A strong recruiting effort will require the financial and philosophical support of administration. The Culinary Arts department recognizes the value of the recruiting specialists within WCCC and CMU, but to be most effective the faculty members need to be building direct relationships with potential students and the recruiters. Funding for travel across the state needs to be budgeted and the administration must support planned absences from class for faculty to travel to high school programs and events throughout the state.

Appendix A

Majors and Degrees, Year-by-Year Tables

Appendix A: Majors and Degrees, year-by-year tables

Majors													
Program	Degree	Code	Major	2010-11		2011-12		2012-13		2013-14		2014-15	
				1st Major	All	1st Major	All	1st Major	All	1st Major	All	1st Major	All
Culinary Arts	Tech Cert	1351	Culinary Arts	19	32	24	37	23	40	14	24	10	22
		1140	Baking and Pastry							1	3	3	7
	AAS	1350	Culinary Arts	117	143	144	180	126	155	128	150	82	104
		1352	Undeclared, Culinary Arts	1	3		2						
		1340	Baking and Pastry							11	16	24	30
Subtotal				137	178	168	219	149	195	154	193	119	163
Degrees													
Program	Degree	Code	Major	2010-11		2011-12		2012-13		2013-14		2014-15	
				1st Major	All	1st Major	All	1st Major	All	1st Major	All	1st Major	All
Culinary Arts	AAS	1350	Culinary Arts	12	12	15	15	20	20	26	26	21	21
		1340	Baking and Pastry									6	7
	Tech Cert	1351	Culinary Arts	9	9	7	7	7	7	7	7	13	13
		1140	Baking and Pastry									3	3
Subtotal				21	21	22	22	27	27	33	33	43	44

Appendix B

Registrations and Student Credit Hours, Year by Year Tables

Appendix B: Registrations and Student Credit Hours, year by year tables

Colorado Mesa University Registrations and Student Credit Hours by Student Level											
Subject	Student Level	2010-11		2011-12		2012-13		2013-14		2014-15	
		Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH
CUAR	FR	308	993	329	1074	255	837	235	731	158	495
	SO	347	1116	515	1667	418	1331	494	1519	450	1419
	JR	24	68	8	24	38	112	28	84	27	89
	SR	33	88	37	98	36	95	28	71	37	105
	PBL	1	2					1	2	1	4
	Non-Deg	3	11	4	13	3	9	2	4	4	8
CUAR Total		716	2278	893	2876	750	2384	788	2411	677	2120

Colorado Mesa University Registrations and Student Credit Hours by Course Level											
Subject	Course Level	2010-11		2011-12		2012-13		2013-14		2014-15	
		Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH
CUAR	100	543	1698	632	2010	470	1501	537	1625	409	1258
	200	173	580	261	866	280	883	251	786	268	862
CUAR Total		716	2278	893	2876	750	2384	788	2411	677	2120

Appendix C

FTES:FTEF Ratio

Appendix C: FTES:FTEF Ratio

Culinary Arts Ratio of full-time equivalent students (FTES) to Full-time equivalent faculty (FTEF)			
2010-11			
Subject	FTES	FTEF	FTES:FTEF
CUAR	75.9	6.8	11.1
2011-12			
Subject	FTES	FTEF	FTES:FTEF
	95.9	8.1	11.8
2012-13			
Subject	FTES	FTEF	FTES:FTEF
	79.5	8.0	9.9
2013-14			
Subject	FTES	FTEF	FTES:FTEF
	80.4	10.6	7.6
2014-15			
Subject	FTES	FTEF	FTES:FTEF
	70.7	10.4	6.8

Appendix D

Credit Hours by Faculty Type

Appendix D: Credit Hours by Faculty Type

Subject	Faculty Type	2010-11			2011-12			2012-13			2013-14			2014-15		
		CCH	SCH	% SCH	CCH	SCH	% SCH	CCH	SCH	% SCH	CCH	SCH	% SCH	CCH	SCH	% SCH
CUAR	3 -FT Temp	98	1235	54%	95	1490	52%	92	1153	48%	113	899	37%	144	1147	54%
	6 -PT	66	1043	46%	100	1386	48%	100	1231	52%	142	1512	63%	105	973	46%
CUAR Total		164	2278	100%	195	2876	100%	192	2384	100%	255	2411	100%	249	2120	100%

Appendix E

Culinary Arts Revenue and Expenses

Appendix E:

Culinary Arts Revenue and Expenses*

	2012-13	2013-14	2014-15
Credit Hours	2,384	2,411	2,143
Tuition Revenue	484,929	517,401	486,568
COF	147,808	154,304	160,725
Student Fees	62,886	79,179	61,851
TOTAL	695,623	750,884	709,144
FT/PT Faculty Expense	306,194	349,858	381,024
Direct Program Expense	129,404	135,424	143,582
TOTAL	435,598	485,282	524,606
Net	260,025	265,602	184,538
Cost per Cr Hr	182.72	201.28	244.80

*data supplied by WCCC Manager of Business Service

Appendix F

Projected Departmental Cost per Credit Hour

Appendix F:

Projected Departmental Cost per
Credit Hour

2016-2017

Projected Faculty Expense*	389,137						
Projected Direct Expense/CR**	60						
Credit Hours	2000	2100	2200	2300	2400	2500	2600
Total Cost	509137	515137	521137	527137	533137	539137	545137
Cost per Credit Hour	254.57	245.30	236.88	229.19	222.14	215.65	209.67

2017-2018

Projected Faculty Expense*	395,094								
Projected Direct Expense/CR**	61.20								
Credit Hours	2000	2100	2200	2300	2400	2500	2600	2700	2800
Total Cost	517494	523614	529734	535854	541974	548094	554214	560334	566454
Cost per Credit Hour	258.75	249.34	240.79	232.98	225.82	219.24	213.16	207.53	202.31

*based on a projected budget

**based on a \$56/CR direct expense for 2013-2014 plus 2% annual inflationary increase

Appendix G

Faculty Vitae

Appendix G: Faculty Vitae

Daniel B. Kirby

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E-mail: dkirby@mesastate.edu

SKILLS SUMMARY

Builder of positive classroom, business, and organizational cultures, negotiating equitable solutions, determining the needs of the market, coaching style of leadership, available and compassionate advisor, team member, exemplary work ethics.

EDUCATION

Mesa State College, Grand Jct., CO., A.A.S. Degree in Culinary Arts

PROFESSIONAL CREDENTIALS

Colorado State Board of Community Colleges and Occupational Education, Credential for Career and Technical Education

Certified Hospitality Educator, American Hotel and Lodging Educational Institute

TEACHING EXPERIENCE

Colorado Mesa University, Grand Jct., CO.

Lecturer/Program Coordinator, Culinary Arts Department

(2016 to present) Culinary Program Fundamentals

(2006 to present) Purchasing in Hospitality

(1998 to 2013) Marketing in the Hospitality Industry

(1998 to present) Supervision in the Hospitality Industry

(1998 to present) Internship Coordinator

(1998-2005) ServSafe, Sanitation and Safety

(1998-2002) Menu Planning

Career Center, Mesa County School District #51, Grand Jct., CO.

Culinary Arts Instructor (1991-1995)

Career Center, Mesa County School District #51, Grand Jct., CO.

Culinary Arts Instructor (1979-1981)

ACCOMPLISHMENTS

Program Coordinator, WCCC Culinary Arts Program, formerly known as Colorado Culinary Academy at Mesa State College/WCCC

(1998 to Present)

Colorado Restaurant Association 2013 Regional Outstanding Professional award winner

ACF Colorado Chefs Association, Presidential Medallion Winner 2005

National Restaurant Association, Education Foundation

Professional Management Partner (first in Colorado) 1998 – 2006

Olympic Winter Games, Salt Lake City 2002, qualified culinary student interns to work for Compass, the official catering service supplier for the Olympic Games. Provided 24 hour supervision of 20 interns, and prepared food for athletes at the Olympic Village, January 20th-February 26th, 2002.

Organizer, Annual Western Colorado Regional ProStart High School Cooking Competition 2001 to present.

Founding member, ACF Chefs Association of Western Colorado 1991

INDUSTRY EXPERIENCE

Principle, DJS Foods Inc. dba Quizno's Classic Subs of Grand Junction

(1995 to 2010)

Marketing Associate, Nobel/Sysco Foods Co., Denver, CO.

(1986-1991)

PUBLICATIONS

Contributor, Colorado Food Service CORE Curriculum Guide, Colorado Food Service Educators Tech Prep task Force (1991-1995)

SERVICE: Institutional

Chair, Distinguished Faculty Award Committee, CMU, 2011-2015

Member, WCCC Grant Committee, 2010-11

Member, Faculty Professional Development Fund Committee, 2010 – 2013

Member, WCCC Search Committee, Manager of Business Services 2010

Member, WCCC Curriculum Committee, 2009-2012

Member, MSC Search Committee, Admissions Dept. Candidates, Summer 2009

Member, Distinguished Faculty Award Committee, CMU, 2009-2011

Member, Degree Distinction Committee, MSC, 2008-2009

Member, WCCC Marketing Committee, 2007-2010

Member, Business Department sub-committee for the development of the B.A.S. Degree in Hospitality Management, 2005-2008

Member, MSC Technology Committee, 2003-2006

Member, Academic Enrichment Committee, MSC. 2001-2005

Member, UTEC Joint Advisory Council, 1995 - 1997

SERVICE: Community

Member, School District 51 Consumer and Family Studies Advisory Council, 1998 – present.

President, Colorado West Chapter, Colorado Restaurant Association August 2008 – 2013

Board of Directors, Colorado Restaurant Association, October 2008 - 2013

Culinary Competition Judge, Colorado State ProStart Conferences 2001-2005

Board member, Colorado Restaurant Association, Colorado West Chapter 2003-2005

Member, Colorado Mountain Winefest planning committee, 2002 to 2007.

General Session Speaker, Colorado State ProStart Conference 2001

Coach, Grand Mesa Fire Youth Soccer, 1986 - 2001

Jonathan St.Peter

1705 Juniper Street
Grand Junction Colorado
81505
970-255-2663
jstpeter@coloradomesa.edu

Achievements

Head Coach 2006-2014 Colorado Mesa University/Western Colorado Community College ACF Junior Culinary Team: Team awards; 3 state championships, 1 gold medal, 20 silver medals, 11 bronze medals and 8 certificates

ACF Colorado Chef's Association 2011-present Competition Chair

2014 Governor's Gala: Prepared 6 courses with 5 other Denver area chefs and assistants for four past governors and guests at the Governor's residence. Chef's by invitation only.

2013 Team culinary student showcase mentor, 1st place CTE division

2013 Governor's Gala: Prepared 6 courses with 5 other Denver area chefs and assistants for four past governors and guests at the Governor's residence. Chef's by invitation only.

"Culinary Advantage": A successful partnership between Hilltop services, the Department of Youth corrections and MSC/WCCC to offer a 5 week culinary course to disadvantaged youth 2006-2010.

Community Education Courses: Various educational classes were offered to members of the community on special topics to a diverse student demographic containing parents, children, middle/high school students, adults and seniors.

1st place 2 man team market basket competition hosted by Italco foods at the Denver Coliseum

4th Place Colorado Chef and Rancher Cook-off Montrose Colorado

3rd Place Colorado Governors Symposium 4 man team hot food competition

1st Place Colorado Governors Symposium 1 pot hot food competition

ACF Sanctioned individual/personal competition: 3 gold, 6 silver, 3 bronze medals

EDUCATION

2010-present Student in Bachelors of Applied Sciences program; Business, Mesa State College

1996-1999 Colorado Mountain Culinary Institute: Associates in Applied Sciences; Culinary

1993 – 2014 Eighteen years of practical restaurant and food service experience with a strong background in fine dining, culinary competition and education

Employment History

August 2002 – Present: Colorado Culinary Academy – Mesa State College/Western Colorado Community College; assistant technical professor of culinary arts

March 2011 –: Fin's Grill; Professional restaurant consultation

May 2002 – August 2002: Keystone Ranch, Keystone/Vail Resorts: Chef Tournant

October 1999- May 2000: Colorado Culinary Academy – Mesa State College/Western Colorado Community College; instructional assistant

May 1996 – August 1999: Keystone/Vail Resorts; Student Culinarian

LICENSES / CERTIFICATION

ACF Certified Executive Chef

ACF Certified Chef Educator

ACF Approved Certification Evaluator

Certified ServSafe food safety trainer

State of Colorado Career and Tech Ed. Teaching license

COURSES TAUGHT

- Cuar 101 food safety and sanitation
- Cuar 125 intro to food
- Cuar 129 center of the plate
- Cuar 145 intro to baking
- Cuar 233 advanced line cooking
- Cuar 145 Menu planning
- Cuar 271 intro to culinary competition – hot food
- Cuar 272 intro to culinary competition – cold food
- Cuar 271A advanced culinary competition – hot food
- Cuar 272A advanced culinary competition – cold food

PUBLICATIONS

- Barbecue and beverage magazine column titled “Inside Edge”
- May 2005
- March 2005
- January 2005
- June 2004
- September 2004
- August 2004
- January 2004
- March 2004
- June 2004
- August 2003
- May 2003

PROFESSIONAL AFFILIATIONS

American Culinary Federation

Colorado Chef’s Association

SKILLS / INTERESTS

Culinary Competition

Group training

Travel

Foreign language and cultural relations

Various outdoor sports and activities

Team Athletics

Wayne Smith

Western Colorado Community College, Bishop Campus
2508 Blichmann Ave.
Grand Junction, CO 81505
970.255.2633
wasmith@coloradomesa.edu

Professional Preparation

Currently pursuing Bachelor Degree in Liberal Arts: Culinary Arts and Sciences
Associate of Applied Science, Culinary Arts, Mesa State College 2007

Professional Certifications

Certified Executive Chef, American Culinary Federation 2007
Certified Culinary Educator, American Culinary Federation 2007

Professional Credentials

State of Colorado Post Secondary CTE Credential

Professional Organizations

American Culinary Federation, Past President, Colorado Chefs Association
National Restaurant Association, Past President, Western Colorado Chapter
The Coleman Foundation, Fellow

Appointment

Faculty, Assistant Technical Professor, Culinary Arts (1998-present)

Current Course Assignments

CUAR 125 Introduction to Food Production
CUAR 129 Center of the Plate
CUAR 245 International Cuisine
CUAR 251 Advanced Garde Manger
CUAR 271 Techniques of Culinary Competition

Service to Institution

Senate Faculty Success Committee (2014-2016)
Faculty Senate Representative (2009-2013, Secretary – 2012-2013)
Higher Learning Commission Reaccreditation subcommittee – Integrity (2011-2013)
Working Group to Improve Student Academic Success (2011-2012)
Professional Employees Handbook Committee (2011-2016)
WCCC Scholarship Awards Committee (2007-2016)

Service to Community

Grand Valley Catholic Outreach, Empty Bowls Project, Participating Chef
March of Dimes, Signature Chefs, Participating Chef
Colorado Discover Ability, Chef Dinner, Lead Chef
Colorado Discover Ability, Wine Among the Vines, Lead Chef
Girl Scouts of Colorado, Cocktails and Cookie Creations, Participating Chef

Professional History

Grits Restaurant, Grand Junction
Executive Chef/Proprietor (1994-1997)

Sheraton Harbor Island, San Diego, CA
Sous Chef Apprentice (1991-1993)

Professional History (cont.)

Tamarron Resort, Durango, CO
Banquet Chef (1985-1990)

Mauna Lani Resort, Kawaihae, HI
Steward (1984-1985)

Awards

Gold Medal, Individual Market Basket, ACF sanctions culinary salon, Denver, CO	2012
Gold Medal, Contemporary Hot Food-Fish, ACF sanctioned culinary salon, Denver, CO	2009
Bronze Medal, Two-man Market Basket, ACF sanctioned culinary salon, Denver, CO	2009
Silver Medal, Contemporary Hot Food-Lamb, ACF sanctioned culinary salon, Denver, CO	2008
1 st Place, Colorado Lamb and Wine Pairing Competition, Denver, CO	2007
Presidents Award, American Culinary Federation, Colorado Chefs	2006
Outstanding Educator of the Year	2002, 2008
3 rd Place, Knoebel Cup (team event), Governor's Symposium on Colorado Cuisine, Keystone, CO	2001
1 st Place, Colorado Wine and Food Pairing Competition, Denver, CO	2000
Premiere Chefs in America, American Dairy Association	1996

Publications

Barbecue and Beverage Magazine – The Inside Edge Department	
"Grilled Beef"	BBQ Special 2002
"Grilling with Spirits"	Holiday/Winter 2002
"HACCP for Civilians"	Late Winter 2003
"Grilling for a Crowd"	June/July 2003
"New Adventures in Big Barbecue Tactics"	Oct/Nov 2003
"Put Another Pan on the Fire"	Early Spring 2004
"Spicy Symphony: Heat Up Your BBQ Without Cutting Flavor"	Summer 2004
"Eating with Your Eyes: A Chef's Hints for Food Presentation"	Fall 2004
Internet Blog – "Food and Wine Expert" www.visitgrandjunction.com	2009-2010

Recent Activity

Coach of Program ACF Junior Culinary Team, 2015-2016 – led team to Western Regionals for 2015 and 2016 competition cycles

Culinary Lab Renovation – actively participated in the planning and implementation of a \$1.8M renovation of the culinary facilities and the August 2013 inauguration of a Baking and Pastry Degree program

Consulting Chef – assisted business major students in menu development for the opening of a student-run campus restaurant/pub

Deborah Henderson

Western Colorado Community College, Bishop Campus

2508 Blichmann Ave.

Grand Junction, Colorado 81505

970-255-2628

dhenderson@coloradomesa.edu

Professional Preparation

Currently pursuing Bachelor Degree in Business/Hospitality and AAS in Baking and Pastry

Associate of Arts, Liberal Arts, Mesa Jr. College. 1974

Professional Credentials

State of Colorado EDUT 250-CTE in Colorado Credential

Professional Organizations

American Culinary Federation, Member 2015

Retail Bakers Association Present

ICES, International Cake Exploration Society Present

Appointment

Faculty, Technical Instructor of Baking and Pastry

Current Course Assignments

CUAR 145 Introduction to Baking

CUAR 152 Individual Desserts

CUAR 160 Cake Decorating

CUAR 163 Advanced Wedding Cakes

CUAR 151 Intermediate Bread Preparation

CUAR 269 Dietary Baking

CUAR 153 Confectionary

Service to Institution

Anonymous Committee for Distinguished Faculty Awards 2015

DFAC – Distinguished Faculty Award Committee Present

Service to Community

CDA Colorado Discover Abilities, WCCC dessert Chef

CDA Colorado Discover Abilities, Cake Cottage, desserts Owner

March of Dimes, Star Chef, Cake Cottage, Owner

Taste of the Grand Valley, Cake cottage, Owner

Grand Valley Catholic Outreach, Empty Bowls Project, Participating Baker

Professional History

The Cake Cottage Inc., Grand Junction, Colorado

Owner (1997-2014)

Sweats and Feast, North Carolina, Ashville

Catering, Owner (1986-1996)

Blue Moon Bakery, North Carolina, Ashville

Kitchen Manager (1993-1996)

Recent Activity

Chef Camps for Middle School, High School

2015-2016

Narrative

The Culinary Arts and Baking and Pastry programs at Western Colorado Community College are strong. The process for evaluation and continuous improvement is also excellent, but in need of more complete engagement by faculty, students, staff, administration and industry in order for it to provide the support necessary for sustained excellence.

This report seeks to both **clarify** the information and analysis gained over the External Program Review process and to **challenge** the program's stakeholders. Materials provided to conduct this review included the program self-study – completed February 1st, 2016 and the program sheets for the AAS in Culinary Arts as well as the Technical Certificates. A semi-formal site visit was conducted on March 31st – April 1st, which included interviews with the following faculty, staff, and administrators, as well as round table discussions with several student groups:

- Steve Werman
Assistant Vice President Academic Affairs
- Sylvia Rael
Library Director
- Lauren Cantwell
Reference and Distance Services Librarian
- Dr. Bette Schans
Director, Assessment of Student Learning
- Gillian McKnight-Tutein, Ed. D.
Assistant Vice President Academic Affairs and Director, Distance Education
- Jeremy Brown
Director, Information Technology
- Jeanne Adkins
Acting Vice President, WCCC
- Carol Futhey
Provost and vice President of Academic Affairs
- Kurt Haas
Assistant Vice President Academic Affairs and Director, Graduate Studies
- Tim Foster
President
- Dan Kirby
Assistant Technical Professor, Culinary Arts, WCCC
- Jonathan St. Peter
Assistant Technical Professor, Culinary Arts, WCCC
- Wayne Smith
Assistant Technical Professor, Culinary Arts, WCCC
- Deborah Henderson
Technical Instructor, Baking and Pastry, WCCC
- Christine Murphy
Interim Director of Instruction, Director of Developmental Programs, WCCC

Executive Summary | Culinary Arts External Review | Spring 2016

Program Review Element	Check the appropriate selection				Provide explanation if not agree with element and/or why unable to evaluate
	Agree	Not Agree	Unable to Evaluate	Not Applicable	
The program's self-study is a realistic and accurate appraisal of the program.		√			The self-study does not accurately extoll the quality of the program. (The program is much better than the self-study demonstrates.)
The program's mission and its contributions are consistent with the institution's role and mission and its strategic goals.		X	O		O: No program level mission is articulated in the self-study. X: No clear connection is articulated.
The program's goals are being met.			O X		O: No employer evidence of outcomes evaluation of graduates. X: Goals do not contain measurable targets.
The curriculum is appropriate to the breadth, depth, and level of the discipline.	X		O		O: Missing evidence on Baking + Pastry degree. X: Materials are good.
The curriculum is current, follows best practices, and/or adheres to the professional standards of the discipline.	X		O		O: Very little evidence-based outcome material is presented. X: Excellent.
Student demand/enrollment is at an expected level in the context of the institution and program's role and mission.		O X			O: Evidence of enrollment is not in line with institutional expectations. X: Same
The program's teaching-learning environment fosters success of the program's students.	X	O			O: Material related to CUAR 100 asserts that time not in the lab environment is not conducive to student success X: Observations made on-campus showed real excellence in the lab and classroom environment.
Program faculty members are appropriately credentialed.	X	O			O: Industry certifications are high. Academic credentials are currently low. Industry experience is balanced. X: Support for continuing pursuit of academic credentials is excellent.
Program faculty members actively contribute to scholarship, service and advising.	X	O			O: Evidence related to a clear advising model is missing. (Scholarship is NA to community college personnel.) X: Faculty are intimately engaged with advising in an effective way.
Campus facilities meet the program's needs.		X	O		O: Not enough to evaluate.

					X: Campus facilities are excellent, with 2 exceptions – the Chez Lena Dining Room and the access to the library resources.
Equipment meets the program's needs.	X		O		O: No clear needs were demonstrated as unmet. X: Excellent.
Instructional technology meets the program's needs.	X		O		O: Not enough to evaluate. X: Excellent.
Current library resources meet the program's needs.	O	X			O: Resources are available. X: Accessibility and integration into the curriculum is weak.
Student learning outcomes are appropriate to the discipline, clearly stated, measurable, and assessed.		O X			O: Outcomes measured were for essential learning. Measurements for program outcomes are not provided. X: Same.
Program faculty members are involved in on-going assessment efforts.		O X			O: Essential Learning outcome assessment is in ongoing development, but there is no evidence of program outcome assessment. X: Same.
Program faculty members analyze student learning outcome data and program effectiveness to foster continuous improvement.		O X			O: Evidence does not exist to show that analysis and decisions are based on data. X: Same.
The program's articulation of its strengths and challenges is accurate/ appropriate and integral to its future planning.	X	O			O: Strengths are better than explained in the self-study. Challenges are not supported by data. X: Faculty rely on intimate knowledge of needs in the planning process.

O = Evaluation after analysis of program review | X = Evaluation after site visit | √ = Comparative analysis

Analysis + Recommendations

Trying to determine the path forward by navigating the critical question phase of this report is admittedly like rinsing out an eyelash with a fire hose. The exercise is meant to challenge and push critical thinking at the program level. The recommendations for improvement start there.

“Continuous improvement is driven first by fostering and then by demanding that the entire culture be insatiably curious.” ~Matt Shaw, Professor of Innovation and Creativity

What makes a culinary school excellent? *Listed in order of importance*

Component	Characteristics	S.W.O.T. Analysis
One Student	Do you have grit? <i>desire</i> Are you smart enough? <i>ability</i>	Strength + Opportunity Strength + Opportunity
All Students	Is there a community that promotes accountability, learning, teamwork and excellence amongst peers?	Weakness + Opportunity
Customers (Non-student)	Are they defined? Are they listened to? Are the committed?	Weakness + Opportunity Weakness + Opportunity Strength + Opportunity
Curriculum	Is it balanced? Innovative:Static <i>Pedagogy</i> Classic:Contemporary <i>Content</i> Breadth:Depth Individual:Group Practical:Theoretical Cooking:Everything Else	Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity
Faculty	Are they committed? Are they competent? Are they connected? Are they engaged? Are there enough?	Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity
Facility + Supplies	Is it safe? Is there enough space? Are resources stewarded effectively? Is institutional support effective?	Strength + Opportunity Strength + Opportunity Strength + Opportunity Weakness + Opportunity + Threat
Accessibility	Is it affordable? Does the schedule work?	Strength + Opportunity Strength + Opportunity
Reputation	Does the paper matter? Is the program connected to industry? Do all stakeholders “believe”?	Weakness + Threat Weakness + Opportunity Weakness + Opportunity

Recommendations

There is only one comprehensive recommendation: Fall in love with process improvement. Decide, on purpose, that at least half of every job is about making things better - together. Create a formalized structure that shepherds the generation of a strategic innovation plan. It is a process that accepts change as constant and determines when and individual initiative has been successful or not. Obviously, the proposed initiatives, measures, targets and timelines are intended to be a place to start this discussion.

Strategic Innovation Map				
Program Mission	<i>Write this together. With something measurable in it, by the end of summer 2016.</i>			
Focused Dimension	Strategic Priorities¹	Objectives	Initiatives	Proposed Measure, Target & Timeline
Financial Perceived Value: <i>Provide an affordable opportunity for students.</i>	Allocate budget resources to goals. Maintain affordability of program.	1. Decrease cost per credit hour.	Purchasing Program	Decrease price per student per day by 10% in all labs by Fall 2017
			Schedule and Cohort Proposals	Conduct an exploratory commission to review the scheduling effectiveness by Fall 18
Customer + Student Focus Perceived Value: <i>Create and deliver opportunities to pursue excellence.</i>	Collaborate with customers and students to identify needs and expectations. Deliver high quality goods and service that create customer and student satisfaction.	1. Determine effective standards for curriculum and measure student progress and satisfaction	Retention Program	Create a student club with >30% participation by Spring 18
			Chez Lena Program	Create separate Strategic Innovation Map by Fall 16
			Internship Development	Create separate Strategic Innovation Map by Fall 17
			Program Outcome Assessment	Develop outcomes: Summer 16 Course maps: Summer 17
			Advisory Board	External board in place by Fall 17 Meet 2x/year to review Map
		2. Provide opportunities for community participation	Continuing Education	Create separate Strategic Innovation Map by Fall 19
			Events Program	Create separate Strategic Innovation Map by Fall 20
Internal Process Perceived Value: <i>Work together as a</i>	Improve inner-workings to keep business moving	1. Leverage flexibility for greater access	Online Development	Increase online content >10% by Summer 19

<i>team alongside other departments to reach common goals.</i>	forward. Implement strategies to maximize resources.	2. Department controllable marketing activities	High Schools Ambassadors	Demo at area High Schools each year by faculty + students Fall 17
			Non-Program WCCC and CMU Student Population	More contextualized coursework with other departments – 1 in development by Summer 18
			Industry	Develop a direct to foodservice marketing plan by Summer 17
Growth + Development Perceived Value: <i>Foster a culture of curiosity and promote individual professional development</i>	Ensure faculty and staff possess contemporary expertise in service,	1. Promote Professional Development	Individual Professional Development Plans	Written 5 year plans in place by Fall 16 (Including completions of BA degrees currently underway)
		2. Institutional Engagement	WCCC, CMU and Community Organizations	Plan for each faculty to engage 1 college-wide and 1 industry organization/year by Spring 17

Definitions *What do these terms mean?*

Balanced Scorecard | A business tool that identifies measures that drive performance³

Focused Dimensions | What are your organizational values in each category?

Perceived Value | External perception of demonstrated values.

Strategic Priorities | Clarifies the Organizational Mission into distinct dimensions.

Objectives | Establishes clear goals to make the strategic priority understandable.

Initiatives | What actions are we going to take to accomplish our goals?

Measures | How are we going to quantify our progress toward these goals?

Targets | Which specific measurement will indicate to us that we have achieved our stated objectives?

Performance Dashboard | “...Translate the organization’s strategy into objectives, metrics, initiatives, and tasks customized to each group and individual in the organization.”³

Recommended Initiatives | Chronological List

Listed in order of greatest impact on the overall program

Expediently

1. Complete review of critical questions.
2. Write a program mission statement.
3. Determine the values of the program in each of the four focused dimensions.

-
4. Accept or revise the strategic priorities, objectives, initiatives, measures, targets and timelines.

Summer 2016

5. Program Outcome Assessment: Develop Outcomes and Assessments

Fall 2016

6. Chez Lena Program - Strategic Innovation Map
7. Individual Professional Development Programs

Spring 2017

8. WCCC, CMU and Community Organization Engagement Plan

Summer 2017

9. Program Outcome Assessment: Course Maps
10. Industry Recruitment Program

Fall 2017

11. Purchasing Program
12. Internship Development Program - Strategic Innovation Map
13. Advisory Board in Place
14. High School Ambassadors

Spring 2018

15. Retention Program

Summer 2018

16. Non-Program WCCC and CMU Student Population Recruitment Program

Fall 2018

17. Schedule and Cohort Proposal

Summer 2019

18. Online Course Development

Fall 2019

19. Continuing Education - Strategic Innovation Map

Fall 2020

20. Events Program - Strategic Innovation Map

Conclusion

Progress along this map should be shared as a report during each department meeting. It is additionally recommended that the targets be represented as a visual “dashboard” that details the target, the progress, and who is responsible for each initiative. Therefore each item should be easily digestible and understandable by all parties. Make no mistake however, This program is already strong. With a shift toward strategic thinking informed by the unquenchable thirst for knowledge, it will become even stronger.

References

- ¹ Kaplan, R. and Norton, D. (1992) The Balanced Scorecard – measures that drive performance. *Harvard Business Review*.
- ² Ritosa, M. (2014) Balanced Scorecards Align DAS's Measurable Goals With CDOT Strategy <https://www.codot.gov/business/process-improvement/local-lean/balanced-scorecards-align-das-s-measurable-goals-with-cdot-strategy>
- ³ Eckerson, W. (2005). Performance Dashboards: Measuring, Monitoring, and Managing Your Business. Wiley.
<http://www.bpmpartners.com/documents/Chapter1Excerpt.pdf>
- Pfeiffer, 2009. Practicing Organization Development. Hoboken, US: ProQuest ebrary. Web.
- Blanchard, K. (2010). Mastering the art of change: Ken Blanchard offers some strategies for successfully leading change. *Training Journal*, 44-47.
http://www.acfchefs.org/download/documents/Accreditation/best_practices/self-study_best_practices.pdf
- Center for the Advancement of Foodservice Education www.cafemeetingplace.com
- College of Education, University of Texas at Austin www.nisod.org
- Good to Great by Jim Collins.
- Erikson, C. (2007, Feb 12). The buddhist in the boardroom - star ceo coach Marshall Goldsmith on how to get better - and make your workplace happier; mister nice guy; Marshall Goldsmith makes a mint coaching top executives, but he really just wants us all to get along. *New York Post*.

Note from the CMU Office of Academic Affairs: The Culinary Arts external reviewer chose to use a “critical questioning” format in which he embedded much of his feedback into the review document in the form of questions. While this was quite valuable for program faculty and administration, the question format did not translate well into a final draft of the review. The above is excerpted directly from his closing recommendations.

External Review | **Culinary Arts and Baking & Pastry Programs**
Western Colorado Community College | Colorado Mesa University Spring 2016

Compiled and Submitted: May 2016 | Brian O'Malley

“If you want to go fast, you must go alone.
If you want to go far, you must go together.”

African Proverb

Table of Content

Item	Pages
Executive Summary Tabular Form	2
Narrative	3
Critical Questioning Method – Program Review Self-Study	4-24
Introduction and Program Overview	4-9
Curriculum	9-11
Analysis of Student Demand and Success	11-13
Program Resources	13-16
Student Learning Outcomes	16-18
Future Program Plans	18-21
Appendixes	21-24
Analysis + Recommendation	25-28
<i>What makes a culinary school great?</i>	25
Strategic Innovation Map	26
Definitions and Recommendations	27
Conclusion	27
References	28

External Review | Culinary Arts and Baking & Pastry Programs
Western Colorado Community College | Colorado Mesa University Spring 2016

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- Steve Werman
Assistant Vice President Academic Affairs
- Sylvia Rael
Library Director
- Lauren Cantwell
Reference and Distance Services Librarian
- Dr. Bette Schans
Director, Assessment of Student Learning
- Gillian McKnight-Tutein, Ed. D.
Assistant Vice President Academic Affairs and Director, Distance Education
- Jeremy Brown
Director, Information Technology
- Jeanne Adkins
Acting Vice President, WCCC
- Carol Futhy
Provost and vice President of Academic Affairs
- Kurt Haas
Assistant Vice President Academic Affairs and Director, Graduate Studies
- Tim Foster
President
- Dan Kirby
Assistant Technical Professor, Culinary Arts, WCCC
- Jonathan St. Peter
Assistant Technical Professor, Culinary Arts, WCCC
- Wayne Smith
Assistant Technical Professor, Culinary Arts, WCCC
- Deborah Henderson
Technical Instructor, Baking and Pastry, WCCC
- Christine Murphy
Interim Director of Instruction, Director of Developmental Programs, WCCC

Critical Questioning Method – Program Review Self-Study

Upon review and analysis of the program review self-study, many critical questions arose. Some of these were addressed directly during the site visit, while most remained unanswered. The answers to these questions are meant for the stakeholders of the program to determine. The inclusion of the full review of the program review self-study here seeks to remedy the latter and serve as the groundwork for recommendations about both the program and the review process. A process to address and answer these critical questions is of significant importance. There is no way for a continuous improvement initiative to take hold in a culture that does not foster curiosity.³ Additionally,

Introduction and Program Overview

Program Description

The Culinary Arts program operates on the Bishop Campus of Western Colorado Community College and offers the following paths of study:

- Technical Certificate in Culinary Arts
- Associate of Applied Science degree in Culinary Arts
- Technical Certificate in Baking and Pastry Arts
- Associate of Applied Science degree in Baking and Pastry Arts (**Program sheet not provided**)

Brief History of the Program

The Culinary Arts program was established in the spring semester of 1998 with one full-time faculty, one part-time faculty and seven full-time students. When the program began there were two adjoining culinary labs, a dining room named Chez Lena, and a small cafeteria-style outlet catering to students, faculty, and campus visitors. The dining room and cafeteria were run by faculty and additional staff (not students) primarily serving lunch and occasionally catering special events. Over time, operation of the cafeteria was turned over to Sodexo (a contracted food service provider) and a class in line-cooking techniques was added. This allowed Chez Lena to become a student-run operation, freed faculty to focus on teaching, advising, and recruiting, and eliminated a staff position. The main teaching lab was initially equipped with three six-burner ranges which soon proved to be inadequate for classes of 16 students (**good choice on size limit**) as the program grew. Equipment layout was reconfigured and the exhaust hood was expanded to allow seven ranges, but adequate access to cooking equipment still often proved difficult for students.

In the fall of 2013 campus acquisition of a new building allowed the culinary program to build new labs in what had previously been classroom space. The renovation resulted in two new state-of-the-art labs, one for cooking which opened for the spring 2014 semester and one for baking and pastry which opened for the fall 2014 semester. This led to the establishment of a Baking and Pastry program.

Currently for Culinary Arts there are three full-time faculty, one three-quarter time faculty, seven part-time faculty, one part-time staff member, and over 100 degree-seeking students.

- 1. Is a ratio of 100+ full time students to 3.75 full time faculty in accordance with the rest of the programs at WCCC? How about at CMU?**
- 2. Are there any operational personnel dedicated to culinary arts?**
- 3. Is there a relationship with college food service?**

Recommendations from the Previous External Review and Progress Made Toward Addressing Them

The previous program review was conducted in the 2009-2010 (4) academic year and resulted in several recommendations as outlined below: Recommendation	Progress Made
Create a clear and comprehensive Culinary and Hospitality curriculum with effective marketing, recruitment, and retention planning and implementation	The Culinary faculty regularly review current trends to ensure the curriculum meets the needs of a changing industry. We have partnered with the high school marketing program on campus to do some limited social media marketing. (5)
Expand the facility to include two culinary labs, one baking and pastry lab, one commercial kitchen, four classrooms with effective technology, and a small restaurant dining room focusing on training rather than sales volume	Culinary and baking lab expansions were completed in 2014 and included technology implementation. Classroom space is shared with other programs on campus. The restaurant dining room size remains unchanged, but curriculum has focused on training. (6)
Package educational costs to include tuition, fees, texts, uniforms, and supplies for a single fee. Allocate a portion of those funds for program operations and a portion for marketing and recruitment.	Tuition, fees, and budget allocation are outside the scope of the day to day functions of faculty. (7)
Hire a Chef recruiter	No progress made to date. As CMU/WCCC continue to grow it may be a wise strategy to employ specialized recruiters with specific program knowledge. (8)
Recruit and select a Chef Educator for Baking and Pastry programs	A Chef Educator for Baking and Pastry was hired beginning in the fall of 2014.
Recruit and select a Hospitality Professor to teach BAS degree in Hospitality	A Hospitality Professor was hired by the Business Education Department at CMU. (9)
Certified Hospitality Educator certification for each instructor	One full-time faculty member holds a CHE certification. The other two full-time faculty members are Certified Chef Educators through the American Culinary Federation. (10)
Design, install, train, and maintain for educational technology	Technology equipment was installed in the new labs. (11)
Rewrite the curriculum for the AAS degree in Culinary Arts Very broad recommendation without specific targets.	No full rewrite, but the curriculum has been reviewed regularly and changes have been made which will be detailed in the section on curriculum.
Create a culinary certificate	Already existed.
Create Baking and Pastry curriculum package and syllabi	A curriculum package and syllabi were completed prior to the hiring of a Baking and Pastry educator. An outside consultant was hired to provide course outlines, select source material, and develop grading instruments. (12)

Create BAS curriculum package and syllabi	BAS degrees are administered through CMU. (13)
Create nutritional cooking and baking curriculum package and syllabi	No progress made. (14)
Create Sommelier Certificate/Bartending Certificate curriculum packages and syllabi	No progress made. (15)
Develop marketing plan, branding plan, recruitment plan, retention plan	No comprehensive plan has been implemented. The Culinary Arts faculty would welcome the opportunity to work with the CMU Marketing, Admissions, and Institutional Research staffs to develop and implement a comprehensive effort to recruit and retain the best students interested in careers in food, dining, and hospitality. (16)

4. **Why six years between visits?**
5. **What are the goals of this initiative? How are they measured?**
6. **Sales volume is certainly a piece of training, how do you manage this balance?**
7. **Understandable that this is out of scope, if there a way to be engaged in the process? At least find a way to explore the possibility?**
8. **Continued growth would be the opposite of defining the need for a recruiter. The budget will more easily support it when enrollment is large, but you need it the most when enrollment is down. How does the program get to participate in meeting this challenge?**
9. **Reviewing the BAS in Hospitality seemed outside of the scope of this review, yet the programs appear to be very intertwined. Why not keep them together for the entire strategic planning process?**
10. **Pursuing certifications is valuable, but does not replace the need for other professional development activities. What are the strategic and tactical initiatives underway for professional development?**
11. **How is the effectiveness of the integration of this technology into the classroom being measured? What are the goals for its use?**
12. **What about additional assessment instruments for the entire Baking and Pastry Curriculum?**
13. **How do you stay connected and aware of development initiatives in the BAS?**
14. **Was this recommendation to start a degree program in nutritional cooking and baking or to create a course? What evidence leads to this recommendation? Why hasn't action been taken?**
15. **What evidence leads to this recommendation? Why hasn't action been taken?**
16. **What are the barriers to commencing this work? What are you doing at the program level already? (Tours, information to Chez Lena guests, non-credit course offerings, community outreach, etc.)**

Mission Statement and Goals for the Program

The role and mission of the institution was reenacted in 2010 by Colorado General Assembly (Colorado Revised 23-53-101) and amended in 2011 when Mesa State College was renamed Colorado Mesa University. After a 2012 amendment, the role and mission is:

There is hereby established a university at Grand Junction, to be known as Colorado Mesa University, which shall be a general baccalaureate and graduate institution with selective admission standards, Colorado Mesa University shall offer liberal arts and sciences, professional and technical degree programs and a limited number of graduate programs. Colorado Mesa University shall receive resident credit for two-year course offerings in its commission approved service area.

Institutional Mission Statement

Committed to a personal approach, Colorado Mesa University is a dynamic learning environment that offers abundant opportunities for students and the larger community to grow intellectually,

professionally, and personally. By celebrating exceptional teaching, academic excellence, scholarly and creative activities, and by encouraging diversity, critical thinking, and social responsibility, CMU advances the common good of Colorado and beyond.

Program goals

Provide students with the skills and knowledge to become productive employees in the hospitality industry. **(17)**

Working with business and industry stakeholders to continually enhance the quality and timeliness of technical content. **(18)**

17. How do you know how well you've done?

18. How is this process formalized so that changes can be considered, targets and metrics established and progress measured?

Program support for other majors/minors and essential learning

Students earning an associate degree in culinary arts or baking and pastry arts are qualified to continue to a bachelor of applied science degree in business administration or hospitality management within the Business Department at CMU. Culinary faculty regularly advise **(19)** students to consider continuing their studies within one of these programs if their career goals include working in management or entrepreneurship. Since 2009, 24 students have graduated with a BAS degree in Hospitality Management or Business Administration after completing their AAS in Culinary Arts. **(20)**

Additionally, culinary arts faculty are currently working with faculty within Kinesiology and Nursing to develop an applied nutrition course that would be part of a new or revised minor in personal training. **(21)** The proposed course has been submitted to the curriculum committee of faculty senate for approval.

The culinary arts department does not currently offer any courses that qualify for essential learning. There have been discussions within the department in the past to give consideration to offering an essential learning course that would fit within the health and wellness requirements. This strategy could be pursued if it has the support of the Kinesiology department and administration. There have also been discussions of developing a multidisciplinary course that would meet the requirements of the essential learning capstone. Possible partners might include biological and physical sciences, business, language and literature, or sociology. **(22)**

19. Is this arrangement formal? Does it happen as a part of a particular course? If it is ad hoc, how do you keep track of who has been advised and who hasn't?

20. Out of how many total BAS Hospitality grads? How well do they perform in comparison to non-AAS holding BAS students?

21. This will be a CUAR course that counts in their degree option? This is an awesome collaboration.

22. I have no question here, just to say GO FOR IT!!!

Locational and Comparative Advantage

Western Colorado Community College houses the only culinary arts and baking and pastry degree programs on the Western Slope. Other public institutions offering similar programs include Colorado Mountain College, Pikes Peak Community College, and Pueblo Community College. There are also several private institutions offering culinary programs, all of them in the Denver Metro area. **(23)**

23. Are there programs in Utah, Nevada, Idaho, Wyoming that you should be considering as competition? What about the national players? Do you lose students from your backyard to CIA, NECI, others?

The availability of campus housing and the campus community of CMU provide a huge advantage in attracting students that are seeking both a career and technical degree and "the college experience." **(24)** The geography and outdoor opportunities of the Grand Valley provide further advantage in attracting qualified students from other regions. The recently added culinary and baking labs were

designed to be effective and attractive. They consistently receive high praise in student evaluations. Getting prospective students on campus to see the facilities is a continuing goal of the department. (25)

In general, enrollment has been down in culinary programs throughout the country. The private institutions have suffered most acutely as evidenced by the recent announcement that all Cordon Bleu campuses in North America would be closed by their parent company. (26) These private schools have struggled with high student loan default rates (an associate degree can cost \$50,000 or more) and are being closely monitored by the federal government. The comparatively low tuition offered by CMU/WCCC is attractive to students and their families.

- 24. Roundtable discussions with students did not support this premise. Of 16 students interviewed, none of them responded that they, nor "any other culinary student that they knew of," lived in campus housing. As a follow-up question, I asked if any of them had attended a sporting event, or owned any Mav "gear" – again, not one student confirmed this assumption. How does your recruiting strategy and positioning change knowing this? Are you keeping them here? Or bringing them in? Do you have a report detailing where your students come from now?**
- 25. Can you get the facility in front of prospective students without making them come to campus? Can you get the people who see the facility to become prospective students?**
- 26. Le Cordon Bleu did not have low enrollment. At the onset of their troubles, as many as 80,000 students were enrolled system-wide. They were overcharging and over-promising the value of their degree. This led to a lawsuit, which led to some terrible press, which led to low enrollments and a huge financial settlement against the company, which put them into the death spiral. This anchored a broader national discussion about the "value of a culinary education" that may have hurt reputations at all culinary schools. Either way, spending some energy to determine the impact of this behemoth's sinking will harm or help the other boats on the water is an essential piece of open-minded competition analysis.
How will the landscape change impact WCCC?**

Unique Characteristics

The culinary department enjoys good will throughout the community, both publicly and professionally, thanks to sustained community outreach including the open-to-the-public dining room, Chez Lena, annually hosting networking events for both the Grand Junction Chamber of Commerce and the Latino Chamber of Commerce, providing food and service for the VIP tent at the Colorado Mountain Winefest, and involvement in numerous non-profit benefits. (27)

The culinary department has embraced the growing trends of sustainability and locally sourced foods. The raised bed gardens and adjacent composting facility operated by environmental science students provide culinary students an opportunity to see these trends in action. Students are able to plant, tend, and harvest vegetables and herbs in the garden then prepare, cook, and serve them in Chez Lena. (28)

Culinary faculty are constantly looking for ways to bring career relevance into the classroom. As an example, every semester students in the purchasing course are required to develop a menu, source ingredients, and determine costs and menu prices that will allow for profitability. They take a field trip to Denver to attend a food show and tour food production facilities so that they can make informed choices as to the ideal products to meet their menu needs. (29) (30)

- 27. All of these events are awesome. Do you measure more than the "goodwill" that they generate?**
- 28. Fantastic. What are students and employers saying about the impact of this addition?**
- 29. Fantastic. Are there other things to do? What other examples do you have? What do external stakeholders say about career readiness and relevance in the program?**
- 30. Your proximity to an excellent AVA is pretty awesome for a school not on the west coast, or in New York. How do you leverage that relationship?**

Curriculum

The curriculum for Culinary Arts and Baking and Pastry Arts is designed to prepare students for a wide variety of employment opportunities including eating and drinking establishments, food and beverage retail outlets, food manufacturing, wholesale operations, and entrepreneurialism. **(31)** The food and beverage industry as a whole is in a state of continual evolution. Education must be designed to provide students with fundamental skills and theory that can adapt to the changes as they occur. **YES!** The curriculum addresses technical and professional workplace skills, critical thinking, and management theory. AAS Graduates of both Culinary Arts and Baking and Pastry Arts are expected to have proficiency in:

- food safety and sanitation
- basic math skills as they relate to food preparation and food cost analysis
- accurate measurement
- knife skills and food preparation
- basic cooking techniques
- basic baking techniques
- food presentation
- storing, preparing, and serving food for optimal nutritional value
- techniques and theory of employee supervision
- food service purchasing including receiving, storing, controlling, and issuing food and beverage products

In addition, AAS graduates in Culinary Arts are expected to have proficiency in:

- theory and techniques of sustainability
- basic fabrication and preparation techniques for meats, poultry, and seafood
- evaluation of wine, spirits, and beer and food pairings
- preparing foods to order in a restaurant setting
- serving foods in a restaurant setting

In addition, AAS graduates in Baking and Pastry Arts are expected to have proficiency in:

- preparing and presenting decorative centerpieces
- preparing a variety of breads
- preparing and presenting a variety of cakes, pastries, and individual desserts
- preparing baked goods for individuals with food allergies
- preparing a variety of chocolates and confections **(32)**

31. Where do they actually end up? Do you tell these student success stories to your new students? How?

32. Is there a source, agency, or body that reviews and helps determine these proficiencies? More importantly, how do you determine how well you are meeting them as a PROGRAM? Each syllabus contains a certain connection to these, but how is that relationship mapped, weighted, tracked and measured?

Curricular Changes

The Culinary Arts faculty regularly review the curriculum with input from their advisory committee. **(33)** Since the previous program review the following curricular changes have been made to the Culinary Arts AAS degree requirements:

Course deletions and justification:

- CUAR 136 Bartending - replaced by CUAR 179 Wine, Beer, and Spirits
- CUAR 157 Menu Planning – excessive content overlap with other courses
- CUAR 256 Marketing in the Hospitality Industry – students continuing in a Business BAS program required to take a marketing course **(34)**

Course additions and justification:

- CUAR 100 Culinary Program Fundamentals – provides foundational skills and knowledge, some content was shifted from CUAR 125 and CUAR 145 to allow more time for advanced skills in those courses
- CUAR 115 Introduction to Sustainable Cuisine – sustainable practices and sourcing of local foodstuffs has become of primary importance to the food service industry **(35)**
- CUAR 179 Wines, Spirits, and Beers – provides knowledge of the manufacturing processes and regional variations in alcoholic beverages as well as the skills required to successfully pair alcoholic beverages with food **(36)**
- CUAR 245 International Cuisine – provides technical skills and knowledge required to produce foods from a wide variety of cultures (elective course)
- CUAR 251 Advanced Garde Manger – provides additional training in the production of cold foods, particularly cured and smoked meats and sausages and preparations that utilize those products (elective course)
- CUAR 271/272 Techniques of Culinary Competition – provides mastery of culinary production techniques, planning, and organization related to competing in culinary salons. Students compete in sanction student team competitions (elective course) **(37)**

Degree requirement changes:

- Total credits required for AAS degree reduced from 69 credits to 66 credits
- Six culinary elective credits added to core classes to allow students flexibility to customize their degree to their particular career interests (CUAR 261 Cost Controls and CUAR 281 Internship changed to electives) **(38)**
- CISB 101 Business Information Technology moved to core classes as an either/or choice with OFAD 118 Intro to PC Application due to the deletion of Applied Studies from essential learning requirements for AAS degrees **Cool.**

Since the previous program review the following curricular changes have been made to the Culinary Arts certificate requirements:

- Total credits required for certificate reduced from 33 credits to 30 credits **(39)**
- CUAR 100 Culinary Program Fundamentals added to the list of required core classes
- Eligible elective courses updated to reflect the changes in courses outlined in the AAS curriculum above

Since the Baking and Pastry Arts AAS degree and certificate programs were initiated after the last Program Review there are no changes to report.

- 33. How often does the advisory board meet? What is their scope? Who's on it? What is the benefit of such a group? Do you see any drawbacks?**
- 34. How did you determine that it wasn't necessary for other students? Was there previously a proficiency related to Marketing?**
- 35. How did you decide that only Culinary, and not Baking and Pastry students needed to take this course?**
- 36. Same question. And, how do you deal with students under 21 years old? Who teaches this?**
- 37. These three electives are fantastic. This is a benchmark innovation that more schools will be embracing as students want more ways to customize their path through a traditionally rigid training program. Bravo.**

- 38. Now to totally reverse direction...what advantage do you see for a student to not take cost management or complete an internship? The choice between competition and garde manger is understandable, but this means they could graduate without an internship? How did you reconcile this decision given your stated program goal of "working with business and industry...?"**
- 39. How did you reduce these hours? Why? How was this reduction accounted for in the "drop" in enrollment numbers? (Everything being equal, this change alone would account for about 4.5% decrease in enrollment.)**

Program Delivery Locations

Virtually all culinary and baking courses are delivered at the Bishop Campus of WCCC. Approximately 70% of the core classes in Culinary Arts and Baking and Pastry Arts require kitchen/lab facilities. **(40)** Due to the specialized nature of the required equipment and need for timely critical feedback on student performance the curriculum does not lend itself to distance delivery formats such as online courses. One notable exception is CUAR 101 Food Service Sanitation which is currently being delivered in online and hybrid online/classroom formats. **(41)**

- 40. What if this assumption was wrong? Is there a benefit to making certain that the other 30% are excellent online courses? What are the drawbacks? Is there a growing threat from the online environment? (Like Blue Apron and Escoffier online.)**
- 41. What about Enhanced delivery? (Course shells built online, grading, readings, writing assignments, etc all managed online...)**

Analysis of Student Demand and Success

Majors and Graduates

Over the five academic years spanning from 2010-2011 to 2014-2015 there has been an average of 31 Culinary Arts certificate students and 146 Culinary Arts AAS students for a total of 177 students. The Baking and Pastry degree programs began in 2013-2014 with 19 students (16 AAS / 3 certificate) and increased to 37 students in 2014-2015 (30 AAS / 7 certificate.) The total student count was highest in 2011-2012 at 219 students, but fell by about 11% to 195 total student the following year. The 2013-2014 academic year held steady, but was followed by a 15.5% drop in 2014-2015 to 163 total students. An average of 19 AAS degrees and 9 certificates have been awarded per year over the five year period from 2010-2011 to 2014-2015. The number of graduates has consistently risen year over year with 21 AAS degrees and 13 certificates awarded in 2014-2015. **(42) The four year drop from 219 to 163 students, 25.5%, is about 10% points higher than the numbers being reported by the ACF as the national average for accredited schools. Calculating the reduced enrollments are not uniform however, and some estimates using the same formulation as above, put some schools as high as 40% reduction in enrollment from their highest year to their current year. No matter the calculation, this is a new environment for all schools on the other side of a great boom and expansion where there will be contraction. Determining how to thrive in the new reality is critical.**

See Appendix A: Majors and Degrees, year by year tables.

- 42. This drop - Do you share and discuss this information often? How can you tell the enrollment story graphically? How do these numbers compare with the rest of the college? Are they so bad that the college will take action?**

Registrations and Student Credit Hours

As would be expected of a certificate / associate degree-level program, virtually all of the student enrollments are at the freshman and sophomore level. Sophomore registrations and student credit hours consistently outpace the same categories for freshman. This is likely due to the fact that recommended course sequencing puts an emphasis on Essential Learning coursework during the freshman year, thus students have less time available for degree-specific course work. The overall numbers reflect the trend in declining enrollment outlined in the previous section. **(43)**

There are more enrollments in 100 level courses than 200 level courses for every year data was supplied. This can be explained by the fact that there are more 100 level courses than 200 level courses in the Culinary Arts and Baking and Pastry Arts programs. The ratio of 100 to 200 level enrollments is

decreasing over time from about 3:1 in 2010-2011 to 1.5:1 in 2014-2015. When paired with the data on the number of graduates increasing and overall enrollments declining **(44)** this could indicate an overall higher completion rate.

- 43. How do you support this assumption beyond the registration numbers? Do students indicate this? How can you reach deeper to determine the root cause of this answer if indeed it is true? What are the other possible solutions to the root causes rather than the symptoms?**
- 44. By “enrollments declining”, are you specifically talking about program starts? Or about Retention as well? What value do you see in dividing the 2? Or creating even more specific measures of information related to enrollment?**

See Appendix B: Registrations and Student Credit Hours, year by year tables

Student Success and Recognitions

In 2012-2013 two elective courses were added to the curriculum: CUAR 271 - Culinary Competition-Hot Food and CUAR 272 – Culinary Competition-Cold Food. Since that time the WCCC Culinary Arts junior competition team has won the state competition and gone on to regional competition three years in a row. The competitions are sanctioned by the American Culinary Federation and take place at the local, state, regional, and national level. A team must win at each level to move on to the next level. In 2014 the team travelled to Oakland, CA and earned a silver medal. In 2015 the team travelled to Las Vegas, NV and earned a bronze medal. **(45)** One member from the 2015 team, George McLennan, was invited to cook at The Masters Golf Tournament just a few weeks after returning from the regional event. Mr. McLennan has returned this year and is serving as the captain of the team. In fact, there are three returning members on the team, two of which have experience at the regional level. The current team will be travelling to Reno, NV in February 2016 with hopes of earning an elusive gold medal.

- 45. How does this fit with program goals? How about with completion rate? (At MCC we have found over time that the completion rate of team members is almost 80%, compared with 18% for the entire program and 14% for the entire college.)**

Potential For Growth

In 2013-2014 a new introductory course CUAR 100 Culinary Program Fundamentals was added to the curriculum. The purpose of the course is to give students a solid base of knowledge in professionalism, culinary math, basic culinary skills, and lab procedures. The course also allowed some basic instruction to be transferred from introductory lab courses to this classroom based course so that more time could be spent in labs on student mastery of techniques and applications. Originally the course was set up as a prerequisite to the lab courses. While this course resulted in making the students that completed it better prepared for their remaining courses, it had the unintended effect of “weeding out” students that became disengaged during a semester of nothing but lecture coursework. **(46)** This change was a contributing factor to decreasing course enrollments over the past two years. Once the problem was detected the course was redesigned **(47)** and changed to a co-requisite to the introductory lab courses. This change should have a positive effect on student retention.

The Culinary Arts program will begin offering concurrent enrollment to School District 51 students beginning in the Fall 2016 semester. There has been a great deal of initial interest during the annual high school sophomore tours that bring every district sophomore to the WCCC campus. **(48)** The current plan is to offer two sections with a maximum availability for 32 students and the expectation that it will be at full enrollment. Students in this program will be earning college credits that can be part of a certificate or associate degree in either Culinary Arts or Baking and Pastry Arts. A primary focus of this program will be recruiting and retaining these students to complete degrees after high school graduation. **(49)**

In coordination with the Kinesiology and Health Sciences departments, the Culinary Arts department has a new 3-credit course in the approval process. The course, CUAR 220 Techniques of Healthy Cooking, will be a required course for new minor degrees being developed in Kinesiology and Nursing. The course will be a “hands-on” lecture/lab course designed for non-culinary arts majors that will focus on how to modify recipes and prepare foods using techniques that promote flavorful foods and healthful eating. Students that complete the course will be able to coach, mentor, and train clients in healthy eating habits.

If two sections are added per year with a maximum enrollment of 16 students each, the course has the potential of adding 3+ full-time equivalent students per year to the Culinary Arts program. (50)

46. Is there a way to strengthen the content and delivery method of this course so that it engages rather than “disengages” students that take it?
47. What did this redesign bring? Is there a process in place for getting feedback from the students that have taken it in the new format to determine if the changes have been impactful?
48. How do you currently take advantage of this incredible recruiting opportunity?
49. 32 more students each year takes you right back to about 200 students. Will this solve your enrollment puzzle? What are the threats associated with this program?
50. Do you see this as an opportunity to recruit additional students to transfer into the program as well? What is the attrition rate in the Kinesiology and Nursing Programs? Are they losing students? Where do they go? Why don't they come to culinary? Why can't Culinary majors take it as well? Do you see advantages to having these students together?

Program Resources

Faculty

The Culinary Arts department consists of three full-time faculty, one three-quarter time faculty, and seven part-time faculty. The expertise of the faculty ranges from technical culinary and pastry skills, to restaurant and hospitality management, nutrition, workforce supervision, food safety, wine and beverage programs, and sustainability practices. In the course of earning a degree, students come in contact with over 200 years of collective food and beverage industry experience. (51)

The nature of culinary education requires small class sizes in general. (52) The ration of full-time equivalent student to full-time equivalent faculty has hovered in the area of 11 or 12 to 1. (53) In recent years (2012-2013 to 2014-2015) that ratio has declined due to an increase in staffing to teach the new Baking and Pastry program and a near simultaneous decrease in student credit hours. For 2014-2015 the ratio is at 6.8 FTE students to 1 FTE faculty. (54)

See Appendix C: FTES:FTEF Ratio

Both course credit hours and student credit hours are typically fairly evenly split between full-time and part-time faculty. The course credit hour load shifted heavily to part time in 2013-2014 and reversed to full-time in 2014-2015. This can be explained by the fact that the Baking and Pastry program began with the 2013-2014 academic year, but a successful search for a full-time Baking and Pastry faculty member was not completed until the beginning of the 2014-2015 academic year. Thus, the first year of the program was taught entirely by part-time faculty. The student credit hours are split about 52/48 in favor of full-time faculty with the exception of that 2013-2014 academic year when the delivery of baking and pastry courses by part-time faculty shifted the balance to 37% full time, 63% part-time. (55)

51. What are the holes in faculty expertise related to program proficiencies? How do you compensate for them? Are there other strategies you could use? Do you ever make a decision about what should be in the program based on whether or not current faculty have the subject matter expertise to cover it?
52. What if this assumption is false?
53. This number is AWESOME for the educational culture – how can you celebrate it more in your recruiting tactics? How do you try to keep this number up in courses where intimate engagement matters less?
54. Do you think the addition of the Baking and Pastry degree brought NEW students or siphoned off students from Culinary Arts? Is there data to support this answer? Can that data provide insight into other potential moves for enrollment growth?
55. Why does this matter? Are there budget implications? Quality implications? Other things that matter – pride, ego, control, additional workload, compensation, faculty development strategies, industry engagement...?

See Appendix D: Credit Hours by Faculty Type

Financial Information

From the 2012-2013 academic year to the 2014-2015 academic year the program costs per credit hour rose by nearly 34%. (56) This alarmingly high increase is a function of both an increase in costs and a decrease in credit hour generation. Faculty expenses rose significantly over the two most recent reporting cycles due to the inception of the Pastry and Baking Arts degree path in 2013 and subsequent hiring of additional full-time and part-time faculty to deliver the program. Direct program expenses per credit hour increased sharply from 2013-2014 to 2014-2015. This is most likely a function of one-time expenses related to the start up of the Baking and Pastry program. It is expected that direct program expenses should see a modest decline in 2015-2016.

Although enrollment in the Baking and Pastry program is in line with projected growth for the new program, Culinary Arts degree enrollment has decreased. Either enrollments must increase, expenses decrease, or a combination of the two. The preference of the Culinary Arts department would be an increase in enrollment. To that end, plans are being made for every full-time faculty member to make at least one recruiting trip to high school culinary programs during the spring of 2016. (57) With significant increases in enrollment and containment of expenses it is possible for the cost per credit hour to return to 2013-2014 levels. (58)

- 56. How do you calculate program costs per credit hour? Is it possible to consider and track both fixed and variable expenses in order to determine a proper breakeven analysis for the program? Perhaps even course by course? Could these projects be integrated in coursework that already exists?**
- 57. Why do you think that HS's are the place to recruit? Are there other recruitment channels that might make more sense? Where have your best students come from? How did they find you? Do you have any carrots to offer? (Scholarships, advanced placements, etc.)**
- 58. Are there revenue-generating ways to offset the "direct program expenses"? Does this happen now? How is the revenue from Chez Lena recognized? Are there other revenue streams that can be integrated into coursework that make sense with the programs expected proficiencies?**

See Appendix E: Culinary Arts Revenue and Expenses and Appendix F: Projected Cost per Credit Hour

Library Assessment

I. Collection Assessment:

A. Reference Support: A search of the Tomlinson Library catalog for reference items appropriate to the Culinary Arts program resulted in only five (5) reference titles, including:

- Labensky, S., Ingram, G. G., & Labensky, S. R. (2001). *Webster's new world dictionary of culinary arts*. 2nd ed. Upper Saddle River, NJ: Prentice Hall.
- Pizam, A., & Holcomb, J. (2008). *International dictionary of hospitality management*. Amsterdam; Boston: Elsevier/Butterworth-Heinemann.
- Pizam, A. (2005). *International encyclopedia of hospitality management*. Boston, Mass.: Elsevier.

B. Monographic Resources: The following table displays a view of representative results found when searching the Tomlinson Library catalog for relevant Culinary Arts content. It displays the number of titles since 2000 (for print items) and the number of items

[Remainder section omitted] (59)

- 59. How is library use integrated into the curriculum? Where can it be strengthened? How would having a library presence on the Bishop campus help? Why doesn't the library get used more frequently?**

Physical Facilities

At about the time of the last Program Review the Culinary Arts department put together a proposal to expand facilities and implement a Baking and Pastry Arts degree program. The proposal was approved and funded by administration. Renovation began in the summer of 2012 with the

demolition of approximately 4000 square feet of what was previously classroom and office space. The culinary lab was completed first and opened in January of 2013. The baking lab opened in August of the same year. The new labs were designed to be highly functional and allow each student space and equipment to work individually and demonstrate his or her ability to perform the competencies required for each program. **(60)** Some design features are readily apparent, such as windows that allow visitors to see into each lab and observe the class activities. Other features are less apparent, but make great contributions to student learning, such as keeping open sight lines and locating all refrigeration compressors on the roof to minimize ambient noise in the lab.

The design and construction of the new facilities have allowed students to work more efficiently than they did in the previous labs. Instructors have noticed an increase in the day-to-day productivity and are consequently able to add more content and exposure to the courses taught in those labs. Both of the new labs contain state of the art equipment. The baking lab includes commercial mixers, a deck oven, a rotary oven, a proofer/retarder, a dough sheeter, large work tables, and many pieces of small specialized equipment. The culinary lab gives each student an individual work area with range, grill, refrigeration, and counter space. Larger equipment in the culinary lab includes a combi oven, smoker, steam kettle, and deep fryers.

While the new labs are very functional and have been well-received by students and faculty alike, it is important to note that the original facilities are beginning to show their age. The culinary program began in 1998 and many of the original pieces of equipment are still in use 18 years later. A replacement schedule needs to be put into effect to allow students in all courses to work with state of the industry equipment, ensure that operational budgets are not hampered by undue utility and repair expenses, and maintain a safe flow of food from the kitchen to consumer. **(61)** Highest priority needs to be given to replacing outdated, inefficient, and failing equipment. Refrigeration and dishwashing equipment would likely top that list. **(62)**

Additionally, consideration should be given to remodeling the Chez Lena dining room and kitchen to improve student visibility to the dining public, project a more professional image, and make more efficient use of the space. Lack of storage space, inability to secure lab areas, and student ingress/egress are all issues that could also be addressed by a professional redesign of the original lab areas. **(63)**

60. Awesome. How well does the lab work when you need to use a team-based approach to a lesson?

61. What are drawbacks to “state of the art” equipment? What do your advisory board and other external stakeholders, namely employers of recent grads, say about workplace readiness related to equipment use?

62. Is there value to having “old, tired equipment” as part of the program? Does the cost of equipment replacement and facilities remodel amortize into direct program costs? How do you connect the need for remodeling to the institutional and program mission?

63. Is there marketing value in a redesign? How does the quality of the current space impact the accomplishment of the programs strategic objectives?

Instructional Technology and Equipment

When the new kitchen labs were designed and built instructional technology was an integral part of the process. Each lab features large ceiling-mounted flat screen monitors in the instructor demonstration area and smaller monitors throughout each room. The monitors have the capability of showing computer presentations and recipes, videos, and camera shots of instructor demonstrations. Each lab also features wireless microphones so that instructors do not have to shout instructions to their students. **(64)** The students and faculty have found the technology to be a key enhancement of the new facilities. Faculty in these labs have embraced the use of technology in their lesson planning, presentations, and student interactions. The recent addition of Panopto lecture capture capabilities has huge potential in culinary classes. It is recommended that the cameras in the labs be replaced with cameras that have Panopto capabilities so that demonstrations can be easily recorded and posted on D2L for student review. **(65)**

Similarly to the physical facilities referenced above, considerations needs to be given to bringing technology into the original culinary labs. The technology of the older culinary lab is limited to a mirror over a table. This lab could benefit from a computer, demonstration cameras, and view screens as described above. The Chez Lena dining room does make use of a computer POS system for order taking and sales management. The system needs to be tied into OpenTable so that customers will have the capability of making reservations online. (66)

64. Do these advances hinder engagement in anyway? How well do they prepare students for workplace realities?
65. Is there an initiative in place to integrate and measure the impact of this new technology in the lab? What kind of long-range, game changing implications can you see if the lecture/demo capture technology creates a magnificent library of information for students to access from anywhere?
66. How will integrating Open Table impact students? Is there a need to learn how to use such a system? How widespread is its use in the region - especially in locations where graduates are employed?

Operational Efficiencies

The addition of an on-site garden and compost facility has allowed the program to reduce the need purchase fresh herbs, greens and some vegetables all while reducing the amount of waste that must be hauled away. (67)

Faculty are utilizing menu planning and ordering software to increase efficiency and more precisely order products needed for lab instruction. (68)

Whenever possible, products made in introductory lab courses are utilized in the Chez Lena dining room, either on the menu or by being placed on display for take out purchase. Items being placed in the take out display case include, cakes, pastries, and cookies from the bake shop and soups, salads, and entrees from the culinary lab. (69)(70)

67. Is there a specific cost-saving figure that can be identified here as well?
68. Why do faculty do the ordering? Are there operational personnel that could handle these duties? Who teaches purchasing? Can it be integrated into classroom activities? How much did the software cost? What about supplier support? Can you reduce the cost of goods by seeking a strategic partnership with one of the broadline distributors? What would be the benefit of connecting with Sodexo related to purchasing? What would be the drawbacks? Is it even possible?
69. Does the revenue from these sales make it to the program's top line? How are prices determined?
70. How does course scheduling impact operational efficiencies? What are the real drags on efficiency? How are various initiatives related to operational efficiency expressed in the classroom in order to engage students into participating in them?

Student Learning Outcomes

- Outcome #1** Prepare food products to specified quality standards of safe food handling, flavor development, doneness, presentation, and timeliness. (Specialized knowledge/Applied learning)
- Outcome # 2** Apply appropriate mathematical concepts to the field of culinary arts as a basis for menu planning, purchasing, and recipe conversion. (Quantitative fluency)
- Outcome #3** Explain key ingredients, preparation methods, and faults that occur in menu items. (Communication Fluency)
- Outcome #4** Develop strategies for production and sales of food products based on the needs of an organization and its clientele. (Critical Thinking) (71)

These student learning outcomes were selected by the members of the culinary department to accurately reflect the skill sets and standards required in an ever-changing food and beverage industry. Outcome 1 measures the student's abilities to execute the required fundamental skill sets in a safe environment. While the specific outcome is assessed in CUAR 129 Center of the Plate, there

are other current core classes offered in the degree that emphasize and reinforce these values. Core classes are listed in table 1. Outcome 2 measures the student’s ability to use fundamental mathematics in an applied environment specifically with an emphasis upon management skill sets. Calculation of costs and prices to insure adequate profit margins, management of the purchasing process and correct calculations required for recipe explosions are required elements of this SLO. Outcome 2 is measured in CUAR 100, Culinary Program Fundamentals. A significant portion of this class engages students in a variety of mathematical exercises that are designed using specific data applicable to the food and beverage industry. Examples include catering menus, buffets, banquet menus and recipe conversions, etc. Outcome 3 is measured in CUAR 129. Using an oral assessment, the culinary arts team measures the student’s abilities in communication fluency. Students are required to prepare an oral presentation describing a process or a product used in class and deliver the presentation to the instructor and their colleagues. Outcome 4 is measured in CUAR 262 Purchasing as part of a comprehensive project. Student design and develop a restaurant menu of their choice. Elements include menu design, recipe selection, food cost projections, menu pricing, concept development and product sourcing. The culinary arts core curriculum reinforces the institution’s objectives and SLO’s. Specific assessments were selected that complimented both the technical nature of the disciplines within the food and beverage industry and the academic trajectory prescribed by the institutional leadership.

Table 1: (72)	Course number	Description	Credits
CUAR	100	Culinary fundamentals	3
CUAR	101	Food safety and sanitation	2
CUAR	115	Intro to sustainable cuisine	3
CUAR	125	Intro to hot foods	4
CUAR	129	Center of the plate	4
CUAR	145	Intro to baking	4
CUAR	156	Nutrition for the hospitality industry	3
CUAR	179	Wines, spirits, beers	3
CUAR	190	Dining room management	4
CUAR	233	Advanced line prep & cookery	4
CUAR	255	Supervision in the hospitality industry	3
CUAR	262	Purchasing for the hospitality industry	3
CUAR	245	International cuisine	3
CUAR	251	Advanced garde manger	3
CUAR	271	Culinary competitions hot	3
CUAR	272	Culinary competitions cold	3
CUAR	281	Internship	1-6

The data retrieved from the assessment of students indicates that the culinary arts program is performing adequately. (73) Informal observation and assessment has long been a part of the culinary team’s philosophy. Relatively new data has become available via the SLO’s and the routine tracking and monitoring of objectives, providing information the faculty members can use to increase student learning and performance in key areas. However, informal student and employer polls show general to extreme satisfaction with the resulting education of students in the culinary arts program and with the institution in general. Approximately 40% of graduating students transfer into the BAS hospitality program at CMU to pursue an advanced degree. Many students move on to very positive positions in a variety of venues. We have students employed in Whole Foods grocery chains, white tablecloth restaurants in Hawaii and other parts of the country, we have students pursuing international travel for advanced training abroad and we have students who stay in the local

community adding value to the local food and beverage industry. All of these students indicate an educational process that is meeting program, industry and institutional objectives. No program improvements resulting from assessment of SLO's have occurred to date. As previously stated, implementation of SLO's is a relatively new process for the culinary arts program. Initial data collected has identified improvements to be made, however, general data collected confirms the positive actions the department has taken to ensure the quality of the educational process.

- 71. Are these taken from course syllabi? Are students aware of the process?**
- 72. How can the detail on this table be more helpful in showing SLO efficacy and integration?**
- 73. How does the program Outcome and Assessment plan impact curriculum planning? This is a great process, what initiatives will you take as a program to integrate it into coursework more quickly? How can this process connect to the strategic planning process? What are the drawbacks and barriers to an initiative like this?**

Future Program Plans

Vision for Program

The faculty of the Culinary Arts and Baking and Pastry Arts program firmly believe that students are being provided with an economically competitive, high-quality education. **(74)** In order for that to continue to be the case, we must continually monitor industry trends to supply students with the essential skills they will need to be attractive to employers and successful in their careers. Some potential industry disruptors and ways they can be addressed in the curriculum are listed below:

Consumer resistance to "chemicals", GMO's, and additives is increasing.	Address these topics including definitions and health concerns as appropriate in Culinary Nutrition and Purchasing courses.
Consumers are eating more vegetables and fewer animal-based proteins.	Adjust curriculum in Center of the Plate and Advanced Line Cooking to give students more exposure to meat-free or meat-as-a-garnish meals.
The trend towards higher minimum wages may lead to a decline in consumers eating out, fewer restaurants, and fewer jobs available.	Continually reinforce to students the economic importance of being efficient and adding value through their work skills. Give students the ability to explain their value in the job interview process.
Consumers are eating fewer meals and snacking more.	Focus students on "building flavor" as they cook and decreasing portion size to fit consumer desires.

*Source: <http://restaurant-hospitality.com/trends/11-trends-will-impact-restaurants-2016> **(75)***

The program needs to grow to about 2800 student credit hours in order to be sustainable in its present form. That is where enrollments were about three years ago. **(76)** Several factors led to a drop in enrollment including economic recovery, a strategic mistake in course sequencing, and a misguided belief that the new culinary labs would "sell themselves." Recessions seem to always lead to an increase in enrollment when people can't find jobs. When the economy turns around more people go directly into the workforce. **(Another recession is bound to come along, can't you just wait it out?;) A strong recruitment program is more important than ever as the economy recovers. More on that in a moment.** The course sequencing issue that kept students out of the culinary labs has been addressed and should lead to an increase in retention. As a program, we need to increase our efforts in recruitment of new students. Traditionally recruitment, especially of high school culinary students, was handled by Dan Kirby. Mr. Kirby transitioned to three-quarter time employment so each of the

remaining full-time faculty must take a greater role in recruiting. This spring each full-time faculty member will make a recruiting trip with Mr. Kirby to meet the high school instructors and learn his recruiting methods that have proved successful in the past. **(77)** Beginning in the Fall of 2016, we will begin a concurrent enrollment program for School District 51 high school students. Students will earn 10 credits over the academic year that can then be applied towards a certificate or AAS degree. These students will immediately increase enrollment, but will also be encouraged to continue after high school graduation. A new course, Techniques of Healthy Cooking, is being designed and developed especially for non-culinary major students. The course will be part of a minor degree for both Kinesiology and Health Sciences, but should also be marketed to all students that have the need for elective credits. **(Awesome)** This course could and should have broad appeal across many disciplines. When combined, these efforts should make the Culinary Department sustainable and valuable to both students and the institution.

74. Can this wording be the core of a program-level mission statement?

75. Are these trends too finicky to call for an adjustment in curriculum? What is the threshold for making such a decision? How do students desires for exploration of given topics play into these decisions? How do you convert these proposals into S.M.A.R.T. goals?

76. Are there other definitions of growth that could lead to sustainability? Specialized cohort programs? Increases in revenue-generating activities? Non-credit and continuing education courses? Decreased sections/increased student:teacher ratio?

77. What are the obstacles to making this a smooth transition? What are the other populations that you should "pitch" about the program? How does the college support these efforts?

Strengths and Challenges Facing Program

A discussion of strengths and challenges of the culinary program necessitates looking at the market in which we operate. At the beginning of the year 2015 there were nine culinary arts programs and two cooking schools in Colorado. Competition for student enrollment is very high and aggressive marketing efforts have become the norm. A list of program strengths includes:

- Residential campus: The only other school in the state that offers a true residential campus with housing, meal plan, sports, clubs and college culture is Johnson and Wales. Other schools offer only assistance in finding rental housing in adjacent areas. **(78)**
- Facilities: WCCC completed the construction of a new cooking skills lab and a baking and pastry lab in 2013 that feature some of the most advanced commercial equipment and media capability in the Rocky Mountain region, including flat screens at all of the 32 individual cooking and baking stations.
- Certificate, AAS, and BAS Degree options: Certificates of Occupational Proficiency and AAS Degrees are offered in both culinary arts and baking and pastry. AAS completers have the option of enrolling in a BAS Degree in either Hospitality Management or Business Administration
- Faculty: Faculty members include 2012-13 Colorado Chef of the Year Jonathan St. Peter, CEC, CCE, Past President and current Board of Directors of the Colorado Chefs Association Wayne Smith, CEC, CCE, Colorado Restaurant Association former board member, chapter president and 2013 Regional Outstanding Professional award winner Daniel Kirby, CHE, former owner of the Cake Cottage of Grand Jct. for 17 years Debra Henderson, former owner of Drake's Restaurant in Ridgeway, CO. for 10 years Drake Pullium, Certified Wine Sommelier Jill Youll, and five other talented former business owners and managers teaching part time. **(ALL AWESOME)**
- Small student to faculty ratios in both labs and lecture classes.
- Tuition that is only a third the cost of a comparable private culinary school.
- Sustainable Cuisine course provides students hands-on farm-to-table experience. **(79)**

78. What do students list as the reasons they chose WCCC? What other options were they choosing between?

79. Are these in the right order? What is the difference between a strength and a competitive advantage? The BAS is a competitive advantage. What else do you do that other schools do not, or cannot do? (Sustainability connectivity, AVA proximity, cost, adventure lifestyle chefery,) Then,

how do you tell the story about it? Also, how does this list reconcile with the “most important components of a culinary education” list from the later section?

Challenges Facing Program

- A robust Colorado economy has driven a building boom in the restaurant industry over the past few years and is driving potential students into the workforce. (80)
 - Ambivalence within the industry concerning the need for formal education. (81)
 - Well-funded marketing efforts by competing schools. (82)
 - Inadequate funding for marketing and advertising. (83)
 - Low brand awareness, even in Mesa County. (83)
 - Limited scholarship opportunities available. (84)
- 80. Is there an opportunity here? Restaurant and foodservice operations are hiring unskilled labor, how can you recruit and train them while they also work?**
- 81. This is real. How much is this sentiment supported amongst faculty at WCCC as well? What is the root cause of this ambivalence? How can that root cause be addressed?**
- 82. How can this be considered an opportunity?**
- 83. Was a plan rejected? How does this money get into the budget? Are faculty rewarded for participating? Are there low cost strategies to explore as well? Does the CMU-WCCC relationship help? Or does it muddy the water?**
- 84. What does the foundation development activities look like? Where is the \$\$\$?**

Trends in the Discipline That Could Affect Future Planning

- Although the U.S. Bureau of Labor Statistics predicts only a 4 % increase (slower than average) in the number of jobs for cooks between 2014-2024, the projected need for Chefs and Head Cooks is 9% (higher than average). (85)
 - The federal government has cracked down on national, for-profit culinary schools for high student loan default rates and over-promising employment compensation, resulting in the announced closure of the Cordon Bleu chain. Bad press from this process over the past few years has had a negative effect on enrollments to culinary schools in general, but with targeted marketing could be turned to an advantage to state schools. (86)
- 85. Are there other opportunities in the field that are expanding that graduates would be prepared to pursue that are not defined as chefs and head cooks?**
- 86. This is a searing insight into the LCB drama...well done. How can you take advantage now, while the iron is hot?**

Improvement Through Review

The Culinary Arts Department looks forward to suggestions for improvement through the review process. (87) As outlined earlier, many recommendations from the previous program review were acted on. The last review led to improvements in facilities, new degree offerings, and changes in strategic thinking such as the increased use of social media to reach out to the public. (88)

- 87. How does the review process stay alive throughout the interim? Are there ways to develop a deeper culture of review and innovation? Is there a process-management czar for innovation? Should there be? Do you want a driving decision maker that pushes hard to get it implemented, or a shepherd that takes the time to integrate everyone's needs into the path of change?**
- 88. How can the value of these changes be measured? How fast can changes be implemented? What are the barriers to implementation of recommended changes?**

Program Challenges and Potential Resources

One of the biggest challenges and a characteristic that is somewhat unique to a culinary program is the perishable nature of the materials needed for lab training. Faculty members expend a considerable amount of time ordering, receiving, stocking, and issuing product before each lab class then returning unused items to storage, rotating product, and finding outlets for products made in the lab. (89) An effort should be made to identify a software solution that could streamline the process and increase

efficiency in ordering and product usage. The Culinary Arts faculty and administration need to have a strategic discussion about the role of Chez Lena in both the program and the institution. That discussion should begin with the course objectives of Advanced Line Cooking and Dining Room Management. Past administrations have viewed the restaurant as a centerpiece and public interface of the campus. That may no longer be the case. We need to be clear on what is the purpose of the dining room and what goals is it trying to achieve. If those goals fall strictly within the realm of education, then we need to review whether or not we are meeting those goals in the best way possible. A strategic process will help us determine what is the function of Chez Lena. Once we know what Chez Lena should be we can address how to best function by reviewing hours of operation, design and layout, marketing, menu style, and even location. (90)

A strong recruiting effort will require the financial and philosophical support of administration. The Culinary Arts department recognizes the value of the recruiting specialists within WCCC and CMU, but to be most effective the faculty members need to be building direct relationships with potential students and the recruiters. Funding for travel across the state needs to be budgeted and the administration must support planned absences from class for faculty to travel to high school programs and events throughout the state.

89. How does this happen in other departments that are supply intensive?

90. How do you use institutional and programmatic strategic initiatives to lead this discussion? What are the drawbacks to Chez Lena feeling customer-focused and guest driven? Who loses if it closes for lunch? Can you really have a program preparing students for an industry that absolutely hinges on customer demand without requiring Internship, not having an open-to-the-public, demand-driven operation? What happens if you triple business rather than close?

Appendix A: Majors and Degrees, year-by-year tables (91)

Majors													
Program	Degree	Code	Major	2010-11 1st Major		2011-12 1st Major		2012-13		2013-14 1st Major		2014-15 1st Major All	
Culinary	Tech	1	Culinary Arts	19	32	24	37	23	40	14	24	10	22
		1	Baking and Pastry							1	3	3	7
	AAS	1	Culinary Arts	1	1	1	1	1	1	1	1	82	1
		1	Undeclared, Culinary	1	3		2						
			1	Baking and Pastry							11	16	24
Subtotal				137	1	168	2	149	1	154	1	119	1
Degrees													
Program	Degree	Code	Major	2010-11 1st Major		2011-12 1st Major		2012-13		2013-14 1st Major		2014-15 1st Major All	
Culinary	AAS	1	Culinary Arts	12	12	15	15	20	20	26	26	21	21
		1	Baking and Pastry									6	7
	Tech	1	Culinary Arts	9	9	7	7	7	7	7	7	13	13
		1	Baking and Pastry									3	3
Subtotal				21	2	22	2	27	2	33	3	43	4

91. How can this be shown in graphic format to have it be more easily digestible and usable for decision making throughout the year? Would operating ratios be beneficial?

Appendix B: Registrations and Student Credit Hours, year by year tables

Colorado Mesa University Registrations and Student Credit Hours by Student Level											
Subject	Student Level	2010-11		2011-12		2012-13		2013-14		2014-15	
		Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH
CUAR	FR	3	9	3	1	2	8	2	7	1	4
	SO	3	1	5	1	4	1	4	1	4	1
	JR	24	68	8	24	38	1	28	84	27	89
	SR	33	88	37	98	36	95	28	71	37	1
	PBL	1	2					1	2	1	4
	Non-Deg	3	11	4	13	3	9	2	4	4	8
CUAR Total		716	2278	893	2876	750	2384	788	2411	677	

Colorado Mesa University Registrations and Student Credit Hours by Course Level											
Subject	Course Level	2010-11		2011-12		2012-13		2013-14		2014-15	
		Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH	Enrolled	SCH
CUAR	100	5	1	6	2	4	1	5	1	4	1
	200	1	5	2	8	2	8	2	7	2	8
CUAR Total		716	2278	893	2876	750	2384	788	2411	677	

Appendix C: FTES:FTEF Ratio

Culinary Arts Ratio of full-time equivalent students (92)

Subject	2010-11		
	FTES	FTEF	FTES:FT
CUAR	75.	6.8	11.
2011-12			
	95.	8.1	11.
2012-13			
	79.	8.0	9.9
2013-14			
	80.	10.	7.6
2014-15			
	70.	10.	6.8

(FTES) to Full-time equivalent faculty (FTEF)

- 92. Would comparative data to other programs at CMU/WCCC make this more meaningful? Is there an administrative directive related to managing this ration? What does being and FTES mean? Same for FTEF – what are the institutional definitions?**

Appendix D: Credit Hours by Faculty Type (FTES) to Full-time equivalent faculty (FTEF) (93)

Subje	Faculty	2010-11			2011-12			2012-			2013-			2014-		
		CC	SC	%	CCH	SCH	%	CCH	SCH	%	CCH	SCH	%	CCH	SCH	%
CUAR	3-FT	98	1	5	95	1	5	92	1	4	1	8	3	1	1	5
	6-PT	66	1	4	1	1	4	1	1	5	1	1	6	1	9	4
CUAR Total		1	2	1	1	2	1	1	2	1	2	2	1	2	2	1

93. How does this fit better into graphics? Do operating ratios clarify the story?

Appendix E: Culinary Arts Revenue and Expenses*

	2012-2013	2013-14	2014-15
Credit Hours	2,384	2,411	2,143
Tuition Revenue	484,929	517,401	486,568
COF	147,808	154,304	160,725 (94)
Student Fees	62,886	79,179	61,851 (95)
TOTAL Rev	695,623	750,884	709,144 (96)
FT/PT Faculty Expense	306,194	349,858	381,024 (97)
Direct Program Expense	129,404	135,424	143,582 (98)
TOTAL	435,598	485,282	524,606
Net, aka gross contribution	260,025	265,602	184,538
Cost per Cr Hr	182.72	201.28	244.80 (99)
Gross contribution per Cr Hr	109.08	110.16	86.11
Efficiency Ratio	1.675	1.82	2.84

94. How are COF funds allocated? Are there department-level decisions or actions to be taken to increase the amount of these monies?

95. Shouldn't student fees cover the majority of variable costs related to low enrollment? How are these fees established? What is the student pushback about fees? How do they impact enrollment decisions as students move through the program?

96. Where are the revenues from Chez Lina?

97. Does this mean that the "average" compensation = \$381,024/6.8? That's \$56,000/year. How does everybody feel about that?

98. What goes into this number? Is that formula universal around the college? How can the formula most accurately reflect the managerial decisions in the program?

99. How can an operating ratio related to gross contribution be developed from this table? (Add a gross contribution per credit hour line item and use it to divide the cost per credit hour. This "efficiency ratio" is much more telling than the cost per credit hour because it is weighted by the courses that are actually being taken and impacted by the total enrollment in those courses and the lab fees associated with them. The trend between efficiency ratios year to year is also a great indicator of operational streamlining and can be used as a measurement to see if change initiatives have positively impacted the outcomes. The lower the number the better.)

Appendix F:								
Projected Departmental Cost per Credit Hour (100)								
2016-2017								
Projected Faculty Expense*					389,137			
Projected Direct Expense/CR**					60			
Credit Hours	2000	2100	2200	2300	2400	2500	2600	
Total Cost	509137	515137	521137	527137	533137	539137	545137	
Cost per Credit Hour	254.57	245.30	236.88	229.19	222.14	215.65	209.67	
2017-2018								
Projected Faculty Expense*					395,094			
Projected Direct Expense/CR**					61.20			
Credit Hours	2000	2100	2200	2300	2400	2500	2600	2700
Total Cost	517494	523614	529734	535854	541974	548094	554214	560334
Cost per Credit Hour	258.75	249.34	240.79	232.98	225.82	219.24	213.16	207.53
*based on a projected budget								
**based on a \$56/CR direct expense for 2013-2014 plus 2% annual inflationary increase								

100. What strategic initiative does this table monitor? Are there behaviors to change based on the information found wherein? How does this table tell a story that we should share with other members of the team? Would it be better in graphics?

Appendix G: Faculty Vitae

[Omitted]

Vitae are all very impressive. Are there holes that you still need to fill? What about service and hospitality?

Additional Comments

- The Wellness Requirement is fantastic. Is there a way to use it to build community?**
- How do students procure supplies and uniform? Does it create a barrier to entry that doesn't need to exist? Can they start without it? Can the school provide? Are students able to use financial aid to purchase these materials?**
- The Kinesiology partnership is a bellwether moment. Are there other departments at the college open to collaborations like this? History? English? Math? Science?**
- Is there an opportunity for more CUAR classes to be engaged with guest-centered learning?**
- Are there opportunities for course to course engagement baked into the curriculum? (where students in purchasing are directly engaged with the students in Advanced Line Prep and Cookery, etc.) Can there be? What would be the benefits of such a process? What about challenges and drawbacks?**
- Are there any places in the curriculum where purposeful comprehensive outcome assessment takes place? (A final project in Dining Room Management or Advanced Line Prep and Cookery?)**

Analysis + Recommendations

Trying to determine the path forward by navigating the critical question phase of this report is admittedly like rinsing out an eyelash with a fire hose. The exercise is meant to challenge and push critical thinking at the program level. The recommendations for improvement start there.

“Continuous improvement is driven first by fostering and then by demanding that the entire culture be insatiably curious.” ~Matt Shaw, Professor of Innovation and Creativity

What makes a culinary school excellent? *Listed in order of importance*

Component	Characteristics	S.W.O.T. Analysis
One Student	Do you have grit? <i>desire</i> Are you smart enough? <i>ability</i>	Strength + Opportunity Strength + Opportunity
All Students	Is there a community that promotes accountability, learning, teamwork and excellence amongst peers?	Weakness + Opportunity
Customers (Non-student)	Are they defined? Are they listened to? Are they committed?	Weakness + Opportunity Weakness + Opportunity Strength + Opportunity
Curriculum	Is it balanced? Innovative: <i>Static Pedagogy</i> Classic: <i>Contemporary Content</i> Breadth: Depth Individual: Group Practical: Theoretical Cooking: Everything Else	Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity
Faculty	Are they committed? Are they competent? Are they connected? Are they engaged? Are there enough?	Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity Strength + Opportunity
Facility + Supplies	Is it safe? Is there enough space? Are resources stewarded effectively? Is institutional support effective?	Strength + Opportunity Strength + Opportunity Strength + Opportunity Weakness + Opportunity + Threat
Accessibility	Is it affordable? Does the schedule work?	Strength + Opportunity Strength + Opportunity
Reputation	Does the paper matter? Is the program connected to industry? Do all stakeholders “believe”?	Weakness + Threat Weakness + Opportunity Weakness + Opportunity

Recommendations

There is only one comprehensive recommendation: Fall in love with process improvement. Decide, on purpose, that at least half of every job is about making things better - together. Create a formalized structure that shepherds the generation of a strategic innovation plan. It is a process that accepts change as constant and determines when and individual initiative has been successful or not. Obviously, the proposed initiatives, measures, targets and timelines are intended to be a place to start this discussion.

Strategic Innovation Map

Program Mission	<i>Write this together. With something measurable in it, by the end of summer 2016.</i>			
Focused Dimension	Strategic Priorities ¹	Objectives	Initiatives	Proposed Measure, Target & Timeline
Financial Perceived Value: <i>Provide an affordable opportunity for students.</i>	Allocate budget resources to goals. Maintain affordability of program.	1. Decrease cost per credit hour.	Purchasing Program	Decrease price per student per day by 10% in all labs by Fall 2017
			Schedule and Cohort Proposals	Conduct an exploratory commission to review the scheduling effectiveness by Fall 18
Customer + Student Focus Perceived Value: <i>Create and deliver opportunities to pursue excellence.</i>	Collaborate with customers and students to identify needs and expectations. Deliver high quality goods and service that create customer and student satisfaction.	1. Determine effective standards for curriculum and measure student progress and satisfaction	Retention Program	Create a student club with >30% participation by Spring 18
			Chez Lena Program	Create separate Strategic Innovation Map by Fall 16
			Internship Development	Create separate Strategic Innovation Map by Fall 17
			Program Outcome Assessment	Develop outcomes: Summer 16 Course maps: Summer 17
		Advisory Board	External board in place by Fall 17 Meet 2x/year to review Map	
		2. Provide opportunities for community participation	Continuing Education	Create separate Strategic Innovation Map by Fall 19
Events Program	Create separate Strategic Innovation Map by Fall 20			
Internal Process Perceived Value: <i>Work together as a team alongside other departments to reach common goals.</i>	Improve inner-workings to keep business moving forward. Implement strategies to maximize resources.	1. Leverage flexibility for greater access	Online Development	Increase online content >10% by Summer 19
			High Schools Ambassadors	Demo at area High Schools each year by faculty + students Fall 17
		2. Department controllable marketing activities	Non-Program WCCC and CMU Student Population	More contextualized coursework with other departments – 1 in development by Summer 18
			Industry	Develop a direct to foodservice marketing plan by Summer 17
Growth + Development Perceived Value: <i>Foster a culture of curiosity and promote individual professional development</i>	Ensure faculty and staff possess contemporary expertise in service,	1. Promote Professional Development 2. Institutional Engagement	Individual Professional Development Plans	Written 5 year plans in place by Fall 16 (Including completions of BA degrees currently underway)
			WCCC, CMU and Community Organizations	Plan for each faculty to engage 1 college-wide and 1 industry organization/year by Spring 17

Definitions *What do these terms mean?*

Balanced Scorecard | A business tool that identifies measures that drive performance³

Focused Dimensions | What are your organizational values in each category?

Perceived Value | External perception of demonstrated values.

Strategic Priorities | Clarifies the Organizational Mission into distinct dimensions.

Objectives | Establishes clear goals to make the strategic priority understandable.

Initiatives | What actions are we going to take to accomplish our goals?

Measures | How are we going to quantify our progress toward these goals?

Targets | Which specific measurement will indicate to us that we have achieved our stated objectives?

Performance Dashboard | "...Translate the organization's strategy into objectives, metrics, initiatives, and tasks customized to each group and individual in the organization."³

Recommended Initiatives | Chronological List

Listed in order of greatest impact on the overall program

Expedientiously

1. Complete review of critical questions.
2. Write a program mission statement.
3. Determine the values of the program in each of the four focused dimensions.
4. Accept or revise the strategic priorities, objectives, initiatives, measures, targets and timelines.

Summer 2016

5. Program Outcome Assessment: Develop Outcomes and Assessments

Fall 2016

6. Chez Lena Program - Strategic Innovation Map
7. Individual Professional Development Programs

Spring 2017

8. WCCC, CMU and Community Organization Engagement Plan

Summer 2017

9. Program Outcome Assessment: Course Maps
10. Industry Recruitment Program

Fall 2017

11. Purchasing Program
12. Internship Development Program - Strategic Innovation Map
13. Advisory Board in Place
14. High School Ambassadors

Spring 2018

15. Retention Program

Summer 2018

16. Non-Program WCCC and CMU Student Population Recruitment Program

Fall 2018

17. Schedule and Cohort Proposal

Summer 2019

18. Online Course Development

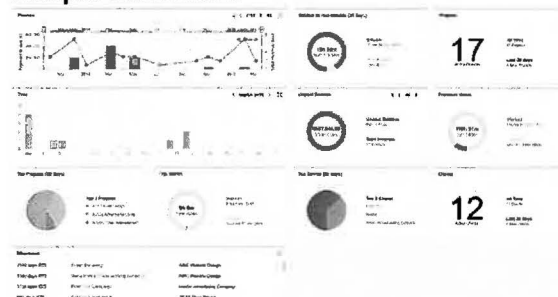
Fall 2019

19. Continuing Education - Strategic Innovation Map

Fall 2020

20. Events Program - Strategic Innovation Map

Sample Dashboard



Conclusion

Progress along this map should be shared as a report during each department meeting. It is additionally recommended that the targets be represented as a visual “dashboard” that details the target, the progress, and who is responsible for each initiative. Therefore each item should be easily digestible and understandable by all parties. Make no mistake however, This program is already strong. With a shift toward strategic thinking informed by the unquenchable thirst for knowledge, it will become even stronger.

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