Washtenaw Community College Comprehensive Report

CUL 104 Baking Science
Effective Term: Spring/Summer 2020

Course Cover

Division: Business and Computer Technologies
Department: Culinary and Hospitality Management
Discipline: Culinary Arts
Course Number: 104
Org Number: 13500
Full Course Title: Baking Science
Transcript Title: Baking Science
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Three Year Review / Assessment Report
Change Information:
Consultation with all departments affected by this course is required.
Course description
Other:
Rationale: Update course description.
Proposed Start Semester: Winter 2020
Course Description: In this entry-level course, students are introduced to the basics of baking science. Students observe and perform experiments in the demo lab to determine how key ingredients react in the baking process. Upon completion of this course, students will have the basic knowledge of ingredient functions needed for further instruction in culinary, baking and pastry lab courses.

Course Credit Hours

Variable hours: No
Credits: 2
Lecture Hours: Instructor: 15 **Student:** 15
Lab: Instructor: 30 **Student:** 30
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Level 2

Requisites

Prerequisite
Academic Math Level 2 or MTH 067 or higher; may enroll concurrently

General Education

Request Course Transfer

Proposed For:

Eastern Michigan University

Student Learning Outcomes

1. Identify various forms of heat transfer and how they apply to the baking process.
   Assessment 1
   Assessment Tool: Common outcome-related multiple-choice questions
   Assessment Date: Fall 2020
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All students
   How the assessment will be scored: Answer key
   Standard of success to be used for this assessment: 70% of all students will score 70% or higher
   Who will score and analyze the data: Departmental faculty

2. Recognize and apply the formulas, weights and measurements used in the bakeshop.
   Assessment 1
   Assessment Tool: Common outcome-related multiple-choice questions
   Assessment Date: Fall 2020
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All students
   How the assessment will be scored: Answer key
   Standard of success to be used for this assessment: 70% of all students will score 70% or higher
   Who will score and analyze the data: Departmental faculty
   Assessment 2
   Assessment Tool: Skills checklist
   Assessment Date: Fall 2020
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All students
   How the assessment will be scored: Rubric
   Standard of success to be used for this assessment: 70% of all students will score 70% or higher
   Who will score and analyze the data: Departmental faculty

3. Identify and apply knowledge of the various ingredients and their functions.
   Assessment 1
   Assessment Tool: Common outcome-related multiple-choice questions
   Assessment Date: Fall 2020
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All students
   How the assessment will be scored: Answer key
   Standard of success to be used for this assessment: 70% of all students will score 70% or higher
   Who will score and analyze the data: Departmental faculty
   Assessment 2
   Assessment Tool: Skills checklist
   Assessment Date: Fall 2020
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All

Number students to be assessed: All students
How the assessment will be scored: Rubric
Standard of success to be used for this assessment: 70% of all students will score 70% or higher
Who will score and analyze the data: Departmental faculty

4. Recognize mixing methods and baking principles used in the baking process.
   Assessment 1
   Assessment Tool: Common outcome-related multiple-choice questions
   Assessment Date: Fall 2020
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All students
   How the assessment will be scored: Answer key
   Standard of success to be used for this assessment: 70% of all students will score 70% or higher
   Who will score and analyze the data: Departmental faculty

Course Objectives

1. Demonstrate the use of baker's percentage and conversion factor.
2. Explain the steps in the baking process.
3. Identify and describe fruit ripening, proper handling and storage.
4. Identify various volume measure containers.
5. Identify faults and causes of baking failures.
6. Describe and apply the various leavening methods.
7. Demonstrate caramelization.
8. Describe and apply knowledge of various ingredient functions.
9. Identify and apply the process of controlling gluten development.
10. Recognize the five basic tastes.
11. Recognize and apply the various ways heat is transferred in cooking and in baking.
12. Describe the production process of the cacao bean.
13. Describe the process of tempering chocolate.
14. Describe various mixing methods used in the baking process.

New Resources for Course

Course Textbooks/Resources

Textbooks
Figoni, Paula. *How Baking Works*, Third ed. Wiley, 2011, ISBN: 978-0-470-392.
Manuals
Periodicals
Software

Equipment/Facilities

Level II classroom
Other: Demo lab-TI 126

Reviewer	Action	Date
Faculty Preparer:		
Sharyl Politi	*Faculty Preparer*	*Sep 17, 2019*
Department Chair/Area Director:		
Derek Anders Jr	*Recommend Approval*	*Sep 19, 2019*
Dean:		
Eva Samulski	*Recommend Approval*	*Sep 20, 2019*
Curriculum Committee Chair:		

Lisa Veasey	*Recommend Approval*	*Oct 07, 2019*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*Oct 10, 2019*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Oct 14, 2019*

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CUL 104 Baking Science
Effective Term: Fall 2018

Course Cover

Division: Business and Computer Technologies
Department: Culinary and Hospitality Management
Discipline: Culinary Arts
Course Number: 104
Org Number: 13500
Full Course Title: Baking Science
Transcript Title: Baking Science
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:
Consultation with all departments affected by this course is required.
Course description
Outcomes/Assessment
Objectives/Evaluation
Rationale: Adding a demonstration lab to this lecture course to tie both lecture and lab components together for a more well rounded understanding of this course.
Proposed Start Semester: Fall 2018
Course Description: In this entry-level course, students are introduced to the basics of baking science and will recognize how changes in ingredients and/or processes affect baked products. Emphasis is placed on how key ingredients function and interact in the baking process. Upon completion of this course, students will be prepared for culinary or baking and pastry lab courses.

Course Credit Hours

Variable hours: No
Credits: 2
Lecture Hours: Instructor: 15 **Student:** 15
Lab: Instructor: 30 **Student:** 30
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Total Contact Hours: Instructor: 45 **Student:** 45
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Assessment 2

Assessment Tool: Skills checklist
Assessment Date: Fall 2020
Assessment Cycle: Every Three Years
Course section(s)/other population: All
Number students to be assessed: All students
How the assessment will be scored: rubric
Standard of success to be used for this assessment: 70% of all students will score 70% or higher
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Dean:		
Eva Samulski	*Recommend Approval*	*Jan 09, 2018*
Curriculum Committee Chair:		
David Wooten	*Recommend Approval*	*Feb 05, 2018*
Assessment Committee Chair:		
Michelle Garey	*Recommend Approval*	*Feb 05, 2018*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Feb 06, 2018*