

**FCS 345 FOOD SYSTEMS & DIETETICS MANAGEMENT
FCS424 EXPERIMENTAL FOODS**

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**FCS345 FOOD SYSTEMS & DIETETICS MANAGEMENT COURSE
DESCRIPTION**

- Study of food service operations, administration, and management with emphasis on human and material resource management, financial management of food service operations, layout and design of workspace and equipment and facilities, and use of computers in food service management.
- 4 credit hours
- Includes ServSafe® certification
- Revised by Mary Beth Ohlms, MEd, RD, LD

MAXIMIZING RESOURCES

- Challenge #1: number of students enrolled creates log jam of grading
- Challenge #2: supplies funded only by student course fees
- Challenge #3: need to make course relevant for all students, including food management minors

CHALLENGE #1-NUMBER OF STUDENTS ENROLLED CREATES LOG JAM OF GRADING

- Course assignments included: writing job specification and description, inservice design and delivery, equipment comparison; facility layout and design, and creation/implementation of marketing plan
- Typical enrollment is 24-30 students
- No funding for additional section
- No time in instructor's schedule for additional section

SOLUTION #1

- Marketing Plan/Implementation of NNM® shared with another course; create plan in FCS345, implement and evaluate in FCS318 Community/Public Health Nutrition Throughout the Lifecycle II
- Students are not creating two separate projects for two classes
- Students not enrolled in FCS318 plan, implement and evaluate Monotony Breaker in cooperation with campus Dining
- Flipped Facility Layout and Design Assignment-great student responses and results!

CHALLENGE #2-LIMITED BUDGET FOR SUPPLIES

- No additional university or department funds available for lab food and supplies
- With n=24 (average class size), course fees total \$600 (\$25 per student)

SOLUTION #2

- By combining assignments with FCS318, budget for NNM® essentially doubled
- By partnering with campus dining contractor, dollars are maximized
 - Student course fees used to purchase decorations, print and distribute flyers, etc.
 - Campus dining budget pays for all food and labor for the special menu
 - Win-Win!

CHALLENGE #3-RELEVANCE FOR ALL STUDENTS

- Dietetics students have diverse interests-clinical, management, community, public health, prevention
- In addition to dietetics students, course is also required for food management minor students

SOLUTION #3

- By combining assignments, students are able to develop a marketing plan based on a proposed nutrition education program
- By partnering with campus dining, students have a real life experience working with a food service professional

COURSE DESCRIPTION

- Introduction to research and scientific methods of problem solving in the area of foods. Emphasis on student-directed projects and experiments utilizing research and development techniques, including oral and written communication of research findings. (Houston, C.A. (2014). *HES424 Experimental foods course syllabus*.)
- Designated as Writing Intensive (Students must take 2 writing intensive courses: one at the 200 level or above and one at 300 level or above as part of the general education curriculum.)
- 4 credit hours
- Designed and taught by Dr. Cheryl Houston, PhD, RD, LD, CFCS, FAND; Mary Beth Ohlms, MEd, RD, LD has assisted instructor by facilitating food laboratory work

WRITING INTENSIVE REQUIREMENTS

- At least 5,000 prose words total writing for the course (about 12-14 pages)
- At least 2,500 of the 5,000 prose words high stakes writing
- Total written assignments must represent at least 30% of the grade
- Recursive writing used for at least one assignment

Fortbonne University (2013). Culture and the common good: A liberal arts education at Fortbonne University, p. 13. Retrieved from <http://www.fortbonne.edu/upload/Culture%20and%20the%20Common%20Good%20.pdf>

MAXIMIZING RESOURCES

- Challenge #1: number of students enrolled exceeded capacity of food lab
- Challenge #2: supplies funded only by student course fees
- Challenge #3: need to meet criteria for writing intensive

CHALLENGE #1-LAB CAPACITY EXCEEDED

- Lab is designed for 12-15 students
- Typical enrollment is 24-30 students
- No funding for additional section
- No time in instructor's schedule for additional section

SOLUTION #1

- During lab time, half the students conduct their experiment in the food lab; the remaining half are in "writing lab" in an adjacent classroom completing assigned sections of their paper
- Students in the writing lab must turn in completed work at the end of the session

CHALLENGE #2-LIMITED BUDGET FOR SUPPLIES

- No additional university or department funds available for lab food and supplies
- With n=24 (average class size), course fees total \$1440 (\$60 per student)

SOLUTION #2

- Undergraduate laboratory assistant purchases all necessary food and supplies using unit cost
- Students utilize formulations to minimize over purchasing of product; calculations are graded
- Partnering with local food ingredient companies to obtain product
 - Andrea's Gluten Free Foods-developed gluten free bread formulation (Andrea Kosinski-owner)
 - Brenntag Mid-South-PromOat™-Beta Glucan is a naturally-separated, soluble dietary fiber from oat grain (JennWhite F/Ph/PC Industry Specialist)
 - Think.Eat.Live. Foods, LLC-SunFlour®-certified gluten & wheat free, and is free of peanuts, soy and dairy (Dan Tegel)

CHALLENGE #3-MUST MEET WRITING INTENSIVE CRITERIA

- Students complete a written research paper using food experimentation as the focus
- Students work in teams to design, implement and evaluate a food experiment; however each student completes his/her own written paper
- Final written report includes recipe analysis by a software program

SOLUTION #3

- Introduction, methods, results and discussion are all submitted in draft format and graded by instructor
- Instructor meets individually with each student to review submitted each submitted draft section
- Report, including graded drafts, is worth 500 points or 55.5% of the total grade

COURSE OUTCOMES

- Demonstrate the ability to develop, test and write recipes according to specified criteria, and present them in a professional format.
- Demonstrate an understanding of the principles of food science and techniques in food preparation using laboratory exercises.
- Apply scientific methods and professional standards in planning, completing and reporting a team laboratory research project.
- Use accepted techniques for sensory analysis of food products.
- Use acceptable research methodology and basic descriptive statistics in reporting and interpreting research findings.
- Demonstrate an ability to review, evaluate and use current research in the area of food science and technology.

REFERENCES

- Fontbonne University (2013). *Culture and the common good: A liberal arts education at Fontbonne University*, p. 13. Retrieved from <http://www.fontbonne.edu/upload/Culture%20and%20the%20Common%20Good%20.pdf>
- Houston, C.A. (2014). *HES424 Experimental foods course syllabus*.
- PromOat® Beta Glucan (2015). *Applications of PromOat® beta glucan*. Retrieved from <http://www.promoat.com/applications/Pages/applications.aspx>
- Think. Eat. Live. Foods, LLC (2014). *The power of SunFlour®*. Retrieved from <http://thinkeatlive.com/pages/the-power-of-sunflour>
