

**Re-Certification Report**  
**FOS 2001 – Man’s Food (B)**

**Sub-Committee #3**  
**General Education Committee**  
**University of Florida**  
**May 4, 2012**

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**Course Information:**

Title: *FOS 2001 – Man’s Food* (3 credits; Biological Sciences)  
Enrollment: 1,400 Fall/Spring Semesters; 700 Summer Session  
Main Lectures: Delivered Online Through Sakai  
Location: Mozilla Firefox in Sakai  
Discussion Sections: N/A

**Instructor:**

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### **Special Note to the General Education Committee**

*During the re-certification process, the Sub-Committee noted several key factors that limit the potential contributions of FOS 2001 to General Education. Though not related directly to main components of the assessment process (e.g. SLOs, syllabus, course objectives, content, methods), these 4 factors could not be ignored in the overall assessment, and in subsequent conclusions about the course.*

- 1. The course enrolls some 3,500 students annually.*
- 2. One (1) Teaching Assistant supports the entire course each year.*
- 3. The sole course instructor receives .50 FTE for teaching.*
- 4. The modest level of resources allocated to support the course prevent achieving its full potential (e.g. insufficient funding for increased staffing and software upgrades).*

*Given these factors, the Sub-Committee suggests that the General Education Committee encourage Department and College administration to re-examine the level of resources allocated to support FOS 2001. This suggestion seems warranted given that FOS 2001 annually produces a substantial volume of tuition and Student Credit Hours.*

### **Recommendation**

The Sub-Committee recommends “**Re-Certify with Modifications**” for FOS 2001 – *Man’s Food*, with the area designation of Biological Sciences. The Sub-Committee recommends that FOS 2001 retain its General Education status, contingent on meeting the following 3 modifications.

1. Improve the **Critical Thinking** aspects of the General Education requirement. For example, students are not adequately involved in “formulating empirically-testable hypotheses derived from the study of physical processes and living things”. In response to this point, Dr. Marshall indicated “*there may be an opportunity with the first assignment to allow the student to hypothesize based on their diet what nutrients they feel are lacking or adequate for optimal health and well-being – they could turn this in and then complete the assignment to see if their hypothesis/prediction was correct.*”

Due to the large enrollment and under-staffing, FOS 2001 does not include discussion groups. Such groups could potentially contribute to the development of students’ critical thinking skills. The course “Discussion Board” primarily deals with technical issues.

2. Improve the **Communication** aspects of the General Education requirement. This condition represents the greatest need in FOS 2001. In the past, Dr. Marshall considered incorporating online chat rooms, using the *Elluminate* technology, to increase instructor/student interactions through oral communication about course topics. However, such involvement would require numerous TAs, and the significant estimated cost was a deterrent. Thus, communication is observed primarily through two course assignments, where students must form and express their opinions to complete these assignments. Dr. Marshall indicated that, if given additional TA support, he could adjust the course to focus more on the SLO aspects of both Critical Thinking and Communication. He noted, “*there is a Study Packet for the course that has questions the students can answer as they go through the lessons. These could be required on a weekly basis, which would help in writing skills as well as push the students*

*through the lessons and media. The problem with both of these is that with 1,400 students, I would need more than one TA to assist in grading these. Again, for the size of the class it would be difficult to require research papers and since there is not a lab, then lab reporting would not result. The first two methods of communication could work with additional TA help."*

3. Incorporate extended reading opportunities from sources that supplement the main concepts of the course.

## **Overview of Review Process**

The re-certification review process included 8 components: (1) obtaining an online syllabus, and assignment materials made available by the instructor; (2) holding a pre-review meeting with the instructor and the teaching assistant; (3) evaluating course main lectures provided online, goals of the course, and Student Learning Outcomes; (4) conducting informal online conversations with students enrolled in the course; (5) preparing a draft report; (6) sharing the draft report with the instructor for feedback; (7) holding a post-review meeting with the instructor; and (8) preparing a final report for the General Education Committee.

## **Syllabus and Course Content**

According to the syllabus, "The course is designed for science and non-science individuals interested in the nutrition, biology, chemistry, engineering and microbiology of food and how food affects one's health and impacts on their environment. This course provides students with a vocabulary of nutrition and food science terms that will enable them to understand, discuss, and evaluate nutrition and food science topics. Students should come away from this course being able to understand and have conversations about general nutrition and food science information presented to them through magazines, media, people, etc."

**Course Goals** seek to ensure that students develop "The desire to learn about nutrition and food. Interest in applying food health and safety to their lifestyles. Knowledge to improve their health and well-being at home and in the work force. Curiosity about evaluating their nutritional status. The ability to integrate nutrition and food science as important biological and chemical principles. A knowledge base necessary for making value judgments concerning issues in nutrition and food science."

**Student Learning Outcomes** indicate that, upon completion of the course, students will be able to "Examine the foundations of Man's nutritional requirements. Define basic nutritional and food science terms, measurements, and weights. Identify the importance of macro- and micronutrients. Examine the processes and components associated with the digestion and absorption of food. Describe the quality, classification, transport, biochemical reactions, and sources of macro- and micronutrients. Examine how food affects your health."

The **Course Syllabus** included the standard components: course title and description, General Education areas of designation (B), instructor and TA contact information and ways to communicate, office hours, course and examination rules, description of 4 modules and 2 assignments which constitute this course, required material for the course, grading and examination policies, course management guidelines, campus resources for students, overall course objectives, specific student objectives, and teaching strategies. Student evaluation covers a full range of grades, including minus (-) grades. Final grades are based on 225 points

with the possibility of earning 28 extra bonus points in 4 bonus quizzes (with 7 questions per quiz). These quizzes are based on bonus readings accompanying each module. In addition, there are 2 assignments: Food Recall (55 points=25% grade), and the Pepsi Challenge (10 points=5% grade).

The first assignment (Food Recall) is particularly creative in achieving course objectives. It provides students with a hands-on experience in the evaluation of daily nutritional intake. The Food Recall assignment requires that students keep track of their food intake for 4 consecutive days, and subsequently determine their daily consumption of approximately 30 nutrients using *My Diet Analysis* computer program.

Student assessment also includes 4 examinations (40 points each=160 points=70% grade); one following the completion of each of 4 modules. Each examination consists of approximately 40 multiple choice and true/false questions, with an allocated completion time of 50 minutes. All examinations are “open book” and can be completed online during a defined 24-hour period. If Sakai crashes, students cannot retake the examination. According to Dr. Marshall, experience has shown that, whenever a student’s system fails, the problem is seldom due to a Sakai or a server problem, but to the student’s system alone. Since failure of the student’s system cannot be verified independently, retaking the examination is not permitted. Likewise, though the instructor limits examination time to 50 minutes, no feasible measures exist to control student use of alternative Internet websites to find answers without studying. No common examination facility currently exists on campus, or sufficient proctors to oversee the process to make examinations more stringent and not an “open book” format. To some extent, this problem of examination administration and security affects many campus courses offered in an online format.

Overall, the course content, methods, assignments, and bonus readings relate to the course objectives. Course content follows the monthly schedule of module-material assimilation. There are no required readings included with the course, except for the stipulated limited bonus readings. However, strategically included links direct students to consider modern food-related issues, for example, bioengineering of crop plants for the vitamin A content in “golden rice”. Through effective use of cleverly formulated critical thinking questions, Dr. Marshall moves students from passive course readers/listeners to involved participants.

### **Pre-Review Meeting**

At the pre-view meeting, Sub-Committee members described the purpose and specific steps involved in the re-certification review. The Sub-Committee posed a number of questions to Dr. Marshall related to the course. Topics for discussion included Dr. Marshall’s history and philosophy of teaching the course, including the overall goal for FOS 2001, how the course relates to the General Education requirements, and specifically to the areas of Critical Thinking and Communication. Discussion focused on how the course encourages students to develop logical reasoning skills through scientific analysis and criticism of acquired nutritional information, evaluation of generated nutritional outcomes, and creating solutions to encountered problems. Dr. Marshall consented to provide additional documents elaborating on various aspects on the contribution of FOS 2001 to the General Education of students in the area of Biological Sciences.

### **Main Lectures**

Main lecture content is delivered online and accessed via Sakai. At their convenience, students study Modules 1 through 4, and they take examinations once per month at designated times. They are prompted to remember exam dates by numerous email reminders from the instructor and TA. The lectures are presented in a specific format: 1) a brief audio usually

introduces each topic; 2) students read statically presented material; 3) links lead to complementary brief films or dynamic audio presentations on individual topics; 4) brief review quizzes are completed following each lesson.

Dr. Marshall created the FOS 2001 course in 1983. The course was converted to the online version in 1999. The preliminary format was based on Power Point instructor presentations, and students could view Dr. Marshall and follow his lectures. The course quickly became popular, increasing in enrollment from 400 students to 1,400 students per semester. As the course expanded, it was important to adapt FOS 2001 to accommodate hearing-impaired individuals; hence, the Power Point format was converted to more static method of course delivery.

## **Discussion Sections**

FOS 2001 does not include typical discussion sections.

## **Student Interviews**

Interviews with students enrolled in FOS 2001 (an online course) occurred through email correspondence. Students knew that FOS 2001 is a General Education course, as well as the specific area designation of Biological Sciences. Students generally offered positive comments about the course. They held a favorable view of the course instructor, Dr. Marshall, and the course TA. One comment addressed organization of the course: *"This is the best online course I've taken. The best thing about the course is its structure. It's easy to follow, and I can find everything I'm looking for. Having a simple structure that's easy to follow makes the course and doing the lectures much more enjoyable"*. A number indicated the knowledge and perspectives they gained from the course caused them to become more selective in their food choices. One mentioned how the course challenges students to assess their own nutrition practices and to improve their capability to exert an influence on their overall health status through proper nutrition. The course also helped students learn to think more critically about the essential role that food plays in our society and in the world. Another comment underscored a specific need for the course among college students: *"It educates students on healthy eating habits. A lot of college students do not know how to eat properly, and this course could be an educational way to learn about food. I don't think my friends know about healthy eating, and this course could help educate them"*. A final comment summarized perceived benefits of the course: *"I thought I was educated about food, but I've learned a lot more from the course"*. Overall, students believed FOS 2001 contributes positively to their General Education.

## **Post-Review Meeting**

Prior to the post-review meeting, the Sub-Committee shared with Dr. Marshall a draft version of the report from the review. At the meeting, Dr. Marshall offered responses to the modifications recommended by the Sub-Committee, which are included as follows:

*"Based on the 3 recommended modifications I will do some of these for the course (FOS 2001, Man's Food) as they can only strengthen the course"*.

**Modification 1** – *"I will definitely do the testable hypothesis by incorporating what was discussed with the Sub-Committee and my response in Recommendation 1 (pages 2-3). I feel this recommendation would strengthen the course, meet the Critical Thinking Objective and provide a more extensive self-evaluation of the student's diet. Additionally, I will talk with the*

*Publisher of my course and discuss adding more media like the Golden Rice example that pose questions for them to think about”.*

**Modification 2** – *“I will also incorporate the study packet by requiring students to fill it out prior to the exam. This would improve on written communication and also push the student through the lessons and media”.*

**Modification 3** – *“A Supplemental Reading list for student enrichment in the areas of nutrition and food safety is a very good idea and will be incorporated into the course. I hope the Sub-Committee understands that some courses may not fit into the model that they are envisioning not because of content but because of the course dynamics. With over 1,400 students a semester it will be difficult to incorporate all the learning outcomes suggested”.*

## **Conclusions**

The Sub-Committee felt confident with the analysis, interactions, and outcomes that occurred in conducting the review of FOS 2001. Dr. Marshall and the TA enjoy an effective, professional working relationship that ensures continuity between the main lectures and the course assignments. Despite a modest level of funding, the course provides a forum that delivers basic knowledge of nutrition, food safety, its global impact and its impact on society, and connection to one’s health. It encourages self-evaluation of dieting habits and provides a form of empowerment stemming from the understanding of critical elements, which affect human health. In the 21st century, when obesity in the United States represents a major concern for our nation, FOS 2001 provides students and future global leaders with tools to control their overall well-being.