Proposal Form For Addition And Revision Of Courses

1. Proposing College / School: College of Agriculture
   Department: Poultry Science

2. Course Prefix and Number: FDSC 1000

3. Effective Term: Fall 2012

4. Course Title: Introductory Food Science
   Abbreviated Title (30 characters or less): Introductory Food Science

5. Requested Action:
   - Renumber a Course
   - Add a Course
   - Revise a Course

6. Course Credit:
<table>
<thead>
<tr>
<th>Contact/Group Hours</th>
<th>Scheduled Type</th>
<th>Weekly or Per Term?</th>
<th>Credit Hours</th>
<th>Anticipated Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Hours (Repeatability): 3</td>
<td>3</td>
<td>Lecture</td>
<td>weekly</td>
<td>3</td>
</tr>
</tbody>
</table>

   Total Credit Hours: 3

7. Grading Type:
   - Regular (ABCDF)
   - Satisfactory/Unsatisfactory (S/U)
   - Audit

8. Prerequisites/Corequisites:
   Use "P:" to indicate a prerequisite, "C:" to indicate a corequisite, and "P/C:" to indicate a prerequisite with concurrency.
   None

9. Restrictions:
   List specific restriction in space above.
   - College
   - Major
   - Standing
   - Degree

10. Course Description:
    (20 Words or Less; exactly as it should appear in the Bulletin)
    An overview of the food science discipline including food selection, food composition, food safety and sanitation, food processing, packaging, commodity types, and food laws.

11. May Count Either: 
    (Indicate if this particular course cannot be counted for credit in addition to another)

12. Affected Program(s):
    (Respond "N/A" if not included in any program; attach memorandum if more space is required)

13. Overlapping or Duplication of Other Units' Offerings:
    (If course is included in any other degree program, is used as an elective frequently by other unit(s), or is in an area similar to that covered by another college/school, attach correspondence with relevant unit)
    - Applicable
    - Not Applicable
14. Justification:
Currently, the only basic food-related course is taught by nutrition and contains a heavy emphasis on cooking. The nutrition course with lab is frequently full with dietetic students, leaving little room for other students. With the move of the food science program to the College of Agriculture in 2010, we feel we should offer our own introductory food science course without the lab and without prerequisites so that more students can be accommodated.

15. Resources:
Faculty and classroom space are available to teach this course.

16. Student Learning Outcomes:
See attached syllabus

17. Course Content Outline:
See attached syllabus

18. Assignments / Projects:
See attached syllabus

19. Rubric and Grading Scale:
See attached syllabus

20. Justification for Graduate Credit:
N/A

POLICY STATEMENTS

Attendance: Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence.

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student’s immediate family, the death of a member of the student’s immediate family, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request, and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Tiger Cub for more information on excused absences.

Make-Up Policy: Arrangement to make up a missed major examination (e.g., hour exams, mid-term exams) due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absence(s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up exam will take place within two weeks of the date that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.

Academic Honesty Policy: All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations: Students who need special accommodations in class, as provided for by the Americans With Disabilities Act, should arrange for a confidential meeting with the instructor during office hours in the first week of classes (or as soon as possible if accommodations are needed). The student must bring a copy of their Accommodation Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2096 (V/TT).
FDSC 1000
Introductory Food Science
Fall 2012

Course Description:

An overview of the food science discipline including food selection, food composition, food safety and sanitation, food processing, packaging, commodity types, and food laws.

Credit:

3 credits (LEC 3)

Prerequisites:

None

Course Objectives (expanded on page 3):

1. To know the composition of food as well as the types and functionality of food ingredients.
2. To understand issues associated with food safety and how to prevent food-borne illnesses.
3. To be introduced to basic food preservation and processing techniques.
4. To understand the types and function of packaging materials.
5. To understand concepts related to selection, handling, and storage of food commodities.
6. To become aware of food regulations.

Class Meeting:

Lecture: MWF 8:00-8:50 AM

Instructor:

Dr. Leonard Bell: 301H Poultry Science Building; 844-3272; BELLLEO@auburn.edu

Office Hours:

Wednesday 10-11 AM, by appointment, or on a walk-in basis

Required Textbooks:

Bell, L.N. 2011. FDSC 1000 Lecture Outlines (custom publishing).

Course Evaluation:

Exam 1 100 pts
Exam 2 100 pts
Exam 3 100 pts
Exam 4 100 pts
Two Written Responses (50 pts each) 100 pts
Final Exam 200 pts

TOTAL 700 pts

Grading:

A > 627 pts; B = 557-626 pts; C = 487-556 pts; D = 417-486 pts; F < 417 pts

Attendance:

Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence. Attendance will be occasionally collected. Bonus points may be awarded for attending on these days.

Excused Absences:

Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request, and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Tiger Cub for more information on excused absences.

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Disability Accommodations:

If you are a student with special needs, you must inform the instructor by the 10th day of class. I will gladly work with you to accommodate your particular situation. Please do not hesitate to call or stop by for a confidential discussion.

Honor Code:

All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Additional Notes to Students:

Do not assume this course is easy. To be successful, you must attend class and keep up with course material. The likelihood of passing this course is very slim for students who do not attend class.

You should read the text, especially if you have difficulty understanding lecture notes.

Students can expect challenging tests. All exams are cumulative.

All cell phones and pagers must be turned off and placed in your bag or backpack prior to lecture and lab sessions. No receiving or sending text messages during lecture or lab.

All ipods and other electronic devices must be turned off and put away.

Laptops may be used only to take notes (no facebook, e-mail, games, homework, etc).

Arrive punctually to class.

E-mail is an official means of communicating. You should check your e-mail often.

Talking in class must be limited to discussions about course material. Talking amongst yourselves is disruptive to other students trying to listen to the class lecture and will not be tolerated.

Students can expect abundant help from the professor; feel free to stop by the office to ask questions. Call if you want an appointment at a specific time.

Students can expect to be treated fairly and ethically.

Ultimately, the professor is here to teach and the students here to learn.
Course Objectives with Competencies:

1. To become familiar with food ingredients and their functions.
   - Know the difference between carbohydrates, lipids, proteins.
   - Be able to provide examples or identify examples of the above.
   - Know the food source(s) of specific macronutrients.
   - Know the functionalities of the macronutrients in food.
   - Know the names and colors of food pigments.
   - Know the importance of water activity and glass transition wrt foods.
   - Be able to calculate calories of a food product.

2. To become familiar with food safety issues.
   - Obtain a general background in microbiology.
   - Know the names of pathogenic organisms associated with food.
   - Know characteristics of the pathogenic organisms.
   - Know what conditions make products/people susceptible to pathogens.
   - Know how to prevent food-borne outbreaks/protect oneself.
   - Obtain general background about HACCP.
   - Know the food-related functions of various additives and preservatives.

3. To be introduced to basic food processing techniques.
   - Define unit operation.
   - Know time/temperature combinations for different heating methods.
   - Know why different heating methods are used.
   - Know what the cold spot is and why it is important.
   - Know the difference between conduction and convection.
   - Know the conditions of refrigeration and freezing.
   - Know what contributes to the formation of large ice crystals.
   - Know why foods are dried.
   - Know different ways foods are dried.
   - Know factors that affect food dehydration.
   - Know what extrusion is and food products prepared using extrusion.
   - Know the difference between irradiation and microwave energy.
   - Know what irradiation is and why it is used.
   - Know how foods heat in a microwave.
   - Explain the problems with microwave heating and their solutions.
   - Define biotechnology; explain genetic engineering.
   - Know why some foods are fermented.
   - Know examples of fermentation organisms.
   - Know what happens during fermentation.
   - Know why food is placed in packages.
   - Know the types and functions of packaging.

4. To become familiar with different types of food commodities, including eggs, dairy, meat, poultry, fish, fruits, vegetables, grains.

5. To become aware of food regulations.
   - Be familiar with the FD&C Act, including adulteration and misbranding.
   - Understand the responsibilities of the different government agencies.
   - Know what information is required on food labels.
   - Be familiar with aspects of food labeling as dictated by NLEA, including product descriptors and health claims.

   - Be able to explain factors that influence food selection by individuals.
   - Be able to define various tests used during the sensory evaluation of foods.
## FDSC 1000 Tentative Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Subject</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction; The Food Science Discipline</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Food Selection</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sensory Evaluation</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Food Components</td>
<td>4-6</td>
</tr>
<tr>
<td>5</td>
<td>Food Components</td>
<td>4-6</td>
</tr>
<tr>
<td>6</td>
<td>Food Components</td>
<td>4-6</td>
</tr>
<tr>
<td>7</td>
<td>Water Activity <em>(WR #1 due)</em></td>
<td>4.4</td>
</tr>
<tr>
<td>8</td>
<td>Water Activity</td>
<td>4.4</td>
</tr>
<tr>
<td>9</td>
<td>Glass Transition</td>
<td>13.3</td>
</tr>
<tr>
<td>10</td>
<td>Food Safety/Microbiology</td>
<td>10-11</td>
</tr>
<tr>
<td>11</td>
<td><strong>Exam 1</strong> (lectures 1-10)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Food Safety/Microbiology</td>
<td>10-11</td>
</tr>
<tr>
<td>13</td>
<td>Food Safety/Microbiology</td>
<td>10-11</td>
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<tr>
<td>14</td>
<td>Food Safety Video</td>
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<tr>
<td>15</td>
<td>Food Deterioration</td>
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<tr>
<td>16</td>
<td>Food Preservation</td>
<td>7.1, 8.1-8.3</td>
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<td>17</td>
<td><strong>Exam 2</strong> (lectures 1-15)</td>
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<tr>
<td>18</td>
<td>Food Processing</td>
<td>8.1-8.3</td>
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<tr>
<td>19</td>
<td>Thermal Processing</td>
<td>8.1-8.3</td>
</tr>
<tr>
<td>20</td>
<td>Thermal Processing/Cooling</td>
<td>8.1-8.3</td>
</tr>
<tr>
<td>21</td>
<td>Cooling</td>
<td>8.1-8.3</td>
</tr>
<tr>
<td>22</td>
<td>Dehydration &amp; Extrusion</td>
<td>p. 214-215, 373-374</td>
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<tr>
<td>23</td>
<td>Biotechnology/Genetic Engineering/Plant Tissue Culture</td>
<td>14</td>
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<tr>
<td>24</td>
<td>Fermentation <em>(WR #2 due)</em></td>
<td>10.5</td>
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<tr>
<td>25</td>
<td>Irradiation</td>
<td>p. 241-247</td>
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<tr>
<td>26</td>
<td>Microwaves</td>
<td>p. 360-362</td>
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<tr>
<td>27</td>
<td>Packaging</td>
<td>p. 385-390</td>
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<tr>
<td>28</td>
<td>Packaging</td>
<td>p. 385-390</td>
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<tr>
<td>29</td>
<td>Food Processing Videos</td>
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<td>30</td>
<td><strong>Exam 3</strong> (lectures 1-28)</td>
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<tr>
<td>31</td>
<td>Dairy Products</td>
<td>2.9, 8.4</td>
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<td>Eggs</td>
<td>2.8, 8.5</td>
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<td>33</td>
<td>Meat</td>
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<tr>
<td>34</td>
<td>Poultry</td>
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<td>35</td>
<td>Seafood</td>
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<td>36</td>
<td>Vegetables</td>
<td>2.4, 9.5</td>
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<tr>
<td>37</td>
<td>Fruits</td>
<td>2.4, 9.5</td>
</tr>
<tr>
<td>38</td>
<td>Grains</td>
<td>2.3, 9.4</td>
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<tr>
<td>39</td>
<td>Governmental Regulation of Food</td>
<td>7</td>
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<tr>
<td>40</td>
<td><strong>Exam 4</strong> (lectures 1-38)</td>
<td></td>
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<tr>
<td>41</td>
<td>Governmental Regulation of Food</td>
<td>7</td>
</tr>
<tr>
<td>42</td>
<td>Food Labeling</td>
<td>7</td>
</tr>
<tr>
<td>43</td>
<td>Food Labeling</td>
<td>7</td>
</tr>
</tbody>
</table>

**Final Exam**
FDSC 1000 Written Responses (WR)

These are individual assignments, not group assignments. You are to work alone with your research and writing. All reports are to be typed, double spaced in Times New Roman font size 12 with 1 inch margins on each side.

WR #1

Select a foreign country from the list below that starts with the first letter of your last name or the first letter of the name you go by in class. Research one traditional recipe of a food commonly consumed by residents of that country. Describe the food, its ingredients, and its preparation. Explain why this food is consumed by this culture (history, religion, festival, geography, etc). Write a 1 page report in your own words (typed, double-spaced, grammatically correct) presenting what you find. Xerox your source(s) and turn them in along with your report. Late reports will be penalized 20% per day starting at the beginning of class on the due date.

Grading:       Content  35 points  
               Source(s)   5 points  
               Grammar     10 points

Possible countries:

Algeria        Ethiopia       Madagascar
Argentina      France         Malaysia
Australia      Finland        Mexico
Austria        Germany        Morocco
Belgium        Ghana          Mozambique
Bolivia        Great Britain  Netherlands
Brazil         Greece         New Zealand
Bulgaria       Guatemala      Nigeria
(Not Canada)   Haiti          Norway
Cuba           Honduras       Romania
Columbia       Hungary        Russia
China          Jamaica        Spain
Chile          Japan          Sweden
Cyprus         Jordan         Switzerland
Czech Republic Kenya         Sudan
Denmark        Korea          Thailand
Dominican Republic Lebanon    Turkey
Ecuador        Libya          Venezuela
Egypt          Luxembourg     

WR #2

Find a newspaper or magazine article describing a recent outbreak of a food-borne illness. The article may be from a printed hard copy source or from a reliable internet news site. A copy of the article must accompany your report. Write a paragraph summarizing the article (what happened, what foods, what organism, when did it occur, etc). Write a second paragraph describing what could have been done to prevent this outbreak. The overall report should be 1 page. Late reports will be penalized 20% per day starting at the beginning of class on the due date.

Grading:       Content  35 points 
               Source(s)   5 points  
               Grammar     10 points


Additional Comments on Writing Reports

Plagerism will be evaluated.

If you use more than 4 consecutive words exactly as stated in another source, they must be in quotation marks and the source cited.

Avoid slang or informal terms, such as: the norm, they prepped, they pigged out, etc

Do not use contractions: don't, doesn't, couldn't, wouldn't, isn't, etc

Avoid personal pronouns, especially I and we. Do not say, “I will now talk about ...”

The ideas within a paragraph should follow your topic sentence. Avoid stringing random ideas together in a single paragraph.

If you did not have a good grammar teacher, invest in a grammar reference book to learn the proper use of commas, colons, semi-colons, etc.

Spell-check will not catch the difference between: there, their and they're.

Proof-read, proof-read, proof-read!