1. **Course Information**

   **College:** College of Science and Mathematics  
   **Department:** Biological Sciences  
   **Course Title:** Introductory Biology: Food  
   **Course Designation and Number:** BIO 105  
   **GE Area(s):** Area V – Natural Sciences

   **Writing Intensive:** X Yes __No

   **For WI Courses:** ___All sections X ___Selected Sections are WI.

   **Method(s) of Instruction:**  
   X Lecture  
   X Discussion  
   X Web-enhanced  
   ____ Web-only  
   ____ Other

   **Includes Lab:** X Yes ____No  
   Three hours lecture, two hours lab.

   **Prerequisites:** None

2. **Objectives**

   **GE Program Objectives:**
   - Sharpen critical thinking, problem solving and communication skills.
   - Learn about the aesthetic, ethical, moral, social, and cultural dimensions of human experience needed for participation in the human community.
   - Increase knowledge and understanding of the past, of the world in which we live, and of how both past and present have an impact on the future.

   **GE Area Five Objectives:**
   Area Five courses emphasize scientific inquiry as a way to discover the natural world, and to explore fundamental issues of science and technology in human society.

   **Course Objectives and GE Learning Outcomes:**
   Biological principles applied to the nature of food, its production, and use in the human body. Topics include molecular biology, photosynthesis, respiration, digestion, nutrition, agricultural ecosystems, and issues of feeding a rapidly growing human population.

   - Understand the experimental basis of scientific inquiry
   - Understand the importance of model building for understanding the natural world
   - Understand the theoretical, practical, creative and cultural dimensions of scientific inquiry
   - Discuss some of the fundamental theories underlying modern science
   - Understand the dynamic interaction between society and the scientific enterprise
   - Recognize appropriate ethical uses of knowledge in the natural sciences

   **For WI Courses: WAC Objectives**

   - To improve students’ writing proficiency – their ability to develop ideas and transmit information for an appropriate audience in an organized, coherent fashion while writing with appropriate style and correct grammar, usage, punctuation and spelling.
   - To encourage students to use writing as a learning tool to explore and structure ideas, to articulate thoughts and questions, and to discover what they know and do not know, thereby empowering students to use writing as a tool of discovery, self-discipline, and thought.
   - To demonstrate for students the ways in which writing is integral to all disciplines, essential to the learning and conveying of knowledge in all fields.

   Two writing assignments totaling approximately 1500 words are submitted. The topics will be related to subjects covered in the course. Any paper receiving an 80% or below must be re-written and re-submitted.
3. Suggested Course Materials
   Text:  *Biology of Food* (custom printed by Thomson Learning; taken from 2 different Biology texts)
   Lab:  *Biology of Food laboratory Manual*

4. Suggested Methods of Evaluation
   Three tests and the collection of homework and/or quizzes are recommended.
   A cumulative final exam is required.

5. Grading Policy
   All GE courses are graded A-F.
   - 90-100% A
   - 80-89% B
   - 70-79% C
   - 60-69% D
   - <60% F
   WI component is graded Pass/Unsatisfactory.

6. Suggested Weekly Course Outline Including Typical Assignments

<table>
<thead>
<tr>
<th>WEEK</th>
<th>LECTURE TOPICS</th>
<th>READING ASSIGNMENT (UNIT)</th>
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<tbody>
<tr>
<td>1</td>
<td>Course Introduction, Overview of Nutrition</td>
<td>None</td>
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<tr>
<td>2</td>
<td>Scientific Method, Calories, Energy Balance, Diet</td>
<td>3, 8</td>
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<tr>
<td>3</td>
<td>Biology and Chemistry of Lipids and Carbohydrates</td>
<td>12, 18</td>
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<tr>
<td>4</td>
<td>Biology and Chemistry of Proteins, Food Labeling, Anatomy and Function of Digestion</td>
<td>15, 4, 7</td>
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<tr>
<td>5</td>
<td>Obesity &amp; Weight Loss Measures, Eating Disorders</td>
<td>9, 10, 11</td>
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<tr>
<td>6</td>
<td>Metabolism and Photosynthesis</td>
<td>Pages 1-16</td>
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<td>7</td>
<td>Cellular Respiration and Genetically – Modified Foods</td>
<td>Pages 17-33</td>
</tr>
<tr>
<td>8</td>
<td>Nutrition &amp; Physical Performance, Supplements</td>
<td>27, 24</td>
</tr>
<tr>
<td>9</td>
<td>Population Growth, Population Control Methods</td>
<td></td>
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<tr>
<td>10</td>
<td>Nutrition and Diseases</td>
<td>19, 22</td>
</tr>
<tr>
<td>11</td>
<td>Summary, course evaluations, preparing for the final exam.</td>
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7. Other
   Syllabus distributed to students should employ the format approved by UCAPC and must include:
   - Instructor name, office hours, and contact information
   - Office of Disability Services information
   - Information on how grades will be determined
   - Attendance policy