

## OUTCOMES BASED LEARNING MATRIX

**Course:** BIOL 138: Introduction to Human Nutrition      **Department:** Biology

### Course Description;

This course is an introduction to the science of human nutrition and its role in health. It will include such topics as types of nutrients, nutrient digestion, absorption and metabolism, food sources, recommended nutrient intakes, food safety, and food technology. The course may also address other topics related to health and nutrition. Emphasis will be placed on application of these concepts to promote health and fitness. This course is designed for the non-science major.

**Prerequisites:** Preparing for College Reading II (ENGL092), Introductory Writing (ENGL 099), and Fundamentals of Mathematics (MATH 010), or waiver by placement testing results, or Departmental Approval and the assessment tools.

The individual outcomes listed in the first column answer the question: **What must the learner know and be able to do at the end of the course?** Items in the third column should answer the question: **How do we know?** The second column is where teachers can be most creative; it's for pedagogy. Each rectangle in column one contains just one outcome; the corresponding rectangles in columns two and three, however, may contain more than one item.

The code indicates the core competencies being strengthened by the outcomes activities and the assessment tools.  
Critical Thinking (CT); technology skills (TS); oral communications (OC); quantitative skills (QS); reading (R); writing (W).

COURSE OUTCOMES	OUTCOMES ACTIVITIES	ASSESSMENT TOOLS
Explain the structure, digestion of, source of, and role for carbohydrate, proteins, lipids, vitamins, and minerals in order to make appropriate decisions about diet choices, and understand the relationship between diet and health.	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> <li>• Oral/Poster presentations (R,W,CT,OC,TS)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> <li>• Short papers (CT,R,W, TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>

<p>Identify the eleven organ systems, the organs they include, and their basic function, in order to relate information about the roles of nutrients and non-nutrients to structures in the human body.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Flashcards (R,W)</li> <li>• Oral presentation using torso, other models and figures (OC)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>
<p>Describe the nutrition standards, indices, and guidelines in order to evaluate nutritional value of foods, vitamin and mineral content, energy input, energy output, and measurements in food preparation, and in order to correctly judge portion sizes.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> <li>• Oral/Poster presentations (R,W, CT, OC, TS)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> <li>• Portion estimates (CT, QS)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> <li>• Short papers (CT,R,W, TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>
<p>Read and interpret nutrition labels in order to make good choices when selecting food at the market.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> <li>• Oral/Poster presentations (R,W,CT,OC,TS)</li> <li>• Practice reading labels from items brought in from home or purchased by the instructor</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> <li>• Short papers (CT,R,W, TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>
<p>Analyze the FDA food pyramid and other proposed pyramids in order to make good decisions about food and portion choices.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> <li>• Oral/Poster presentations (R,W,CT,OC,TS)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> <li>• Short papers (CT,R,W, TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> <li>• Article reviews (CT,R,W, TS)</li> </ul>

<p>Analyze energy input and energy output in order to evaluate and possible adjust eating and exercise habits.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> <li>• Oral/Poster presentations (R,W,CT,OC,TS)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Dietary Intake Analysis (R,W,CT,TS,QS)</li> <li>• Short papers (CT,R,W, TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>
<p>Analyze popular diets in order to make good decisions about diet choices.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> <li>• Construct posters (R,W, CT, OC)</li> <li>• Prepare a PowerPoint presentation (R,W, CT, TS, OC)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Short papers (CT,R,W, TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>
<p>Describe the effects of certain personal habits (e.g. alcohol consumption, smoking) on health and nutrition in order to make good lifestyle choices.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> <li>• Construct posters (R,W, CT, OC)</li> <li>• Prepare a PowerPoint presentation (R,W, CT,TS,OC)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Short papers (CT,R,W,TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>
<p>Describe the role of microbes in nutrition in order to practice safe handling of food and distinguish between the positive and negative contributions of microorganisms to good health.</p>	<ul style="list-style-type: none"> <li>• Read text (CT,R)</li> <li>• Attend discussion (W,OC,CT)</li> <li>• Do study guide (R,W,CT)</li> <li>• Write short essays or reports (R,W)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Short papers (CT,R,W,TS)</li> </ul>
<p>Use the vocabulary associated with the study of nutrition correctly in order to be able to read and understand the literature and communicate effectively both in writing and orally in a professional setting.</p>	<ul style="list-style-type: none"> <li>• Write short essays or reports (R,W)</li> <li>• Oral presentations of terms using models or figures (R, OC)</li> <li>• Construct posters (R,W,CT,OC)</li> <li>• Prepare a PowerPoint presentation (R,W, CT, TS, OC)</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes and exams (CT,R,W)</li> <li>• Short papers (CT,R,W,TS)</li> <li>• Oral/Poster presentations (CT,R,OC,W)</li> </ul>

To strengthen Core Competencies in order to increase success in this and other courses and in the workplace.	Referenced above	Referenced above.
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