**NUTR 20500 – Food Science I – Syllabus, Spring 2014**


†Lecture & Laboratory Guide: Purchase at BoilerCopyMaker; Purdue Memorial Union Rm. 157. The cost is $28.50.


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**F&N Support Staff: Jan Buckles**  
Office: 221 Stone Hall

†Required – must be a new, not reused, copy  
*Required but 5 copies are on-reserve in HSCI Library in Stewart Center.

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture: Tuesday 12:30-1:20 p.m. Location: Lilly G420</th>
<th>Lab: Tuesday 8:30-11:20 a.m. or 1:30-4:20 p.m. or Wednesday 1:30-4:20 p.m. Location: STON 229</th>
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| 1/13 | Course Introduction  
Sensory Evaluation  
Text: pp. 3-12; 21-43  
Temperature & Specific Heat  
Text: pp. 51-67 | No Lab  
| Water  
Text: pp. 71-89  
Beverages  
Text: pp. 90-106 | No Lab  
| 1/20 | Sugars, Sweeteners and Confections  
Text: pp. 118-135  
Solutions & Frozen Desserts  
Text: pp. 107-117 | Lab No. 1 Introduction  
Heat and Measurement, Sensory Evaluation, Beverages | Fats and Oils  
Text: pp. 243-279; 269-279 | Lab No. 2 Water Crystallization - Frozen Desserts |
| 1/27 | Fats and Oils (continued) | Lab No. 3 Sugar Crystallization: Sugar Cookery | Bioactive Components of Foods  
Dr. Mario Ferruzzi | Ice Cream Plant - Field Trip  
Bring Lab coats and hair nets |
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| 2/3  | Starch  
  Text: pp. 139-155  
  Cereals  
  Text: pp. 162-174 | Lab No. 4 Composition of Fats and Oils & Emulsions | Proteins  
  Text pp. 295-307  
  Milk  
  Text: pp. 308-324 | Lab No. 5 Fat as a Frying Media Student Projects Assigned |
| 2/10 | No Lecture | Lab No. 6 Cereals | No Lecture | Lab No. 7 Starches Lab books graded |
| 2/17 | EXAM 1  
  (Includes lectures up to the end of proteins and all labs prior to exam) | Lab No. 8 Milk & Hot Chocolate | Cheese  
  Text: pp. 325-340  
  Student Project Due: including hypothesis, objectives, variables, and copy of reference article (Stone Rm. 205 by 5 pm sharp) | Lab No. 9 Dairy – Whipped Toppings Cheese Cookery |
| 2/24 | Eggs  
  Text: pp. 341-367 | Lab No. 10 Eggs and Custard | Meat  
  Text: pp. 368-436  
  Poultry  
  Text: pp. 415-425 | Lab No. 11 Egg White Foams: Omelets, Soufflés and Meringues |
| 3/3  | Poultry (continued)  
  Seafood  
  Text: pp. 426-436  
  Student Project Due: Market Order & Part I (Stone Rm. 205 by 5 pm sharp) | Lab No. 12 Meat: Dry Heat Cookery & Fish Cookery | TA Presentation  
  Meat & Poultry identification  
  Primal & retail cuts | Lab will meet during the Thursday lecture time this week. Attendance is required. |
| 3/10 | Fruits, Vegetables & Legumes  
  Text: pp. 469-547 | Lab No. 13 Meat: Moist Heat Cookery & Gelatin  
  LAB QUIZ – Retail and Wholesale Meat ID and cooking methods. Also, fatty acids, sucrose, glucose, fructose and dipeptide chemical structures. | Fruits, Vegetables and Legumes (continued)  
  Food Preservation & Foodborne Pathogens  
  Text: pp. 64-65  
  USDA: Complete Guide to Canning | Meat/Poultry Plant Tour  
  Dr. Jolena Waddell  
  (Sanitary coats and hair coverings will be provided) |
<p>| 3/17 | | | | Spring Break |</p>
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<td>3/24</td>
<td>No Lecture</td>
<td>Student Project</td>
<td>Food Preservation &amp; Foodborne Pathogens (continued)</td>
<td>Lab No. 14 Effect of Additives on Enzymatic Browning &amp; Fruit Preparation Methods</td>
</tr>
<tr>
<td>3/31</td>
<td>No Lecture</td>
<td>Lab No. 15 Less Starchy Vegetable Preparation</td>
<td>No Lecture</td>
<td>Lab No. 16 High Protein or Starchy Vegetables and Legumes</td>
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<td>4/7</td>
<td>Flours in Batters and Doughs &amp; Leavening Agents</td>
<td>Lab No. 17 Canning &amp; Freezing Lab books graded</td>
<td>EXAM II (Includes from Exam 1 to this exam except Flours lecture)</td>
<td>Lab No. 18 Effect of Mixing / Ingredients on Pour Batters</td>
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<td>4/14</td>
<td>Yeast Breads Text: pp. 223-239 Quick Breads etc.</td>
<td>Lab No. 19 Effects of Mixing / Ingredients on Drop Batters &amp; Shortened Cakes</td>
<td>No Lecture</td>
<td>Lab No. 20 Pastry &amp; Biscuits</td>
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<tr>
<td>4/21</td>
<td>No Lecture</td>
<td>Lab No. 21 Yeast Breads &amp; Sponge Cakes Lab books graded</td>
<td>EXAM III (Comprehensive for entire semester)</td>
<td>No Lab</td>
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<tr>
<td>4/28</td>
<td>No Lecture</td>
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