I. Course Description
A lecture and skills course where students practice skills (such as calculating caloric intake and modifying intake, calculating enteral and parenteral nutrition, calculating needs for pediatrics and transplant patients, etc.) under the supervision of a registered dietitian. Nutrition 600, 630 and 640 or equivalents required as a prerequisite or as a co-requisite.

II. Instructor
Amanda S. Holliday MS, RD, LDN
Office: 241 Rosenau
Office Hours: By Appointment
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Email: amanda_holliday@unc.edu

Beth Jenks MS, RD, LDN
Office: 2217 McGavern-Greenberg
Office Hours: By Appointment
Telephone:
Email: ejenks@unc.edu

III. Textbooks
Required:
• Mahan, K. and Escott-Stump, S. Krause’s Food, Nutrition and Diet Therapy, 13th Edition

Other resources:
• Academy of Nutrition and Dietetics (AND) web site: http://www.eatrightpro.org for Position and Practice Papers link (under Practice tab) and other menu items of interest (explore and learn more about the profession)
• Course recording overlaid with slides: http://uncsph.mediasite.mcn.org/mcncontent/Catalog/Full/608c10a98b654ea1ab9d90d1cff3a35e21
• Nutrition Care Manual (http://www.nutritioncaremanual.org, username: Amanda_holliday@unc.edu, password: {can be found on Sakai}
• A physiology text and a medical dictionary

IV. Student Learning Outcomes covered in this course:
KRD 1.1 The curriculum must reflect the scientific basis of the dietetics profession and must include research methodology, interpretation of research literature and integration of research principles into evidence-based practice.
KRD 2.3 The curriculum must include opportunities to understand governancy of dietetics practice, such as the Scope of Dietetics Practice and the Code of Ethics for the Profession of Dietetics; and interdisciplinary relationships in various practice settings.
KRD 3.1 The curriculum must reflect the principles of Medical Nutrition Therapy and the practice of the nutrition care process, including principles and methods of assessment, diagnosis, identification and implementation of interventions and strategies for monitoring and evaluation.
KRD 3.2 The curriculum must include the role of the environment, food, nutrition and lifestyle choices in health promotion and disease prevention.

CRD 3.1b Diagnose nutrition problems and create problem, etiology, signs and symptoms (PES) statements

CRD 3.1c Plan and implement nutrition interventions to include prioritizing the nutrition diagnosis, formulating a nutrition prescription, establishing goals and selecting and managing intervention

CRD 3.1d Monitor and evaluate problems, etiologies, signs, symptoms and the impact of interventions on the nutrition diagnosis

CRD 3.1e Complete documentation that follows professional guidelines, guidelines required by health care systems and guidelines required by the practice setting.

KRD 5.2 The physical and biological science foundation of the dietetics profession must be evident in the curriculum. Course content may include organic chemistry, biochemistry, physiology, genetics, microbiology, pharmacology, statistics, nutrition metabolism and nutrition across the lifecycle.

V. Learning Experiences
1. Students will independently complete assignments covering varying aspects of the conditions under discussion.
2. Study Guides/Modules are provided that will help the student organize information around various disease states. Completion of the study guides is optional for Nutrition 642 but will be required for the MPH students during the Clinical Nutrition Experience.
3. In the assigned groups, students will work on the case study and lead a discussion of about 20 minutes on the case.
4. Each student who plans to become a registered dietitian in the near future would benefit from developing a Pocket Brain/Cheat Book to be used during supervised practice experiences. This is a collection of material you feel will help you get through your day. Throughout the semester suggestions will be made about what to put in your pocket brain but it is really up to the individual. Pocket brains can be used during the completion of the open book portions of exams in this class.

VI. Grading
Evaluation of student performance in this course will be based on the following:

Learning experiences/assignments: 30%
Exams (3): 70%

Exams in this class are both closed book and open book. The open book exams will be practical work similar to homework assignments. Any reference that you have can be used.

Grading Scale:

<table>
<thead>
<tr>
<th>Undergraduates</th>
<th>Graduates:</th>
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<tbody>
<tr>
<td>97-100</td>
<td>743-800(&gt;93%)</td>
</tr>
<tr>
<td>93-96</td>
<td>597-742 (75-92%)</td>
</tr>
<tr>
<td>90-92</td>
<td>557-596 (70-74%)</td>
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<tr>
<td>87-89</td>
<td>&lt;557 (Below 70%)</td>
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<tr>
<td>83-86</td>
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<tr>
<td>80-82</td>
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<td>77-79</td>
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<td>73-76</td>
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<td>70-72</td>
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<td>Below 70</td>
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<tr>
<td>Below 60</td>
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Honor System: The Honor Code is in effect in this class and all others at the University. I am committed to treating Honor Code violations seriously and urge all students to become familiar with its terms set out at http://instrument.unc.edu. If you have questions, it is your responsibility to ask me about the Code’s application.
**Online Course Evaluation:** UNC uses an online evaluation system to assess the quality of instruction and learning of the courses offered. During the last few weeks of the course, an email will notify you that the system is open with a link to access the form. This evaluation system is anonymous. The instructor will only see the aggregate data with any comments at the end of the course after grades are turned in. You will be sent multiple e-mails until it is completed.

All exams and assignments must be submitted with the following signed statement:

On my honor, no unauthorized assistance has been received or given in the completion of this work.

Signature: ____________________________

**NOTE: THOSE STUDENTS PLANNING TO TAKE NUTRITION 710: CLINICAL NUTRITION PRACTICE DURING SUMMER, MUST RECEIVE A GRADE OF P OR BETTER IN NUTR 642 IN ORDER TO ENROLL.**

**VII. Course Schedule**

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>8/18</td>
<td>Introduction to the course Planning for NUTR 710: Clinical Nutrition Experience Planning for the last 18 months of the MPH/RD Program and Review of MPH/RD Schedule</td>
</tr>
<tr>
<td>Th</td>
<td>8/20</td>
<td>Review of Key Areas from MNT I (GI, Endocrine, Cardiovascular, Liver, Renal) Text: Krause, Chapter 8 Sakai/Web: 1. The Merck Manual of Diagnosis and Therapy, Section 1, Nutritional Disorders: <a href="http://www.merckmanuals.com/professional/nutritional_disorders.html">http://www.merckmanuals.com/professional/nutritional_disorders.html</a> 2. Lab Tests Online: <a href="http://www.labtestsonline.org">http://www.labtestsonline.org</a></td>
</tr>
<tr>
<td>Th</td>
<td>8/27</td>
<td>Fluids and Electrolytes Continued and Acid-Base Balance</td>
</tr>
<tr>
<td>Day</td>
<td>Date</td>
<td>Section</td>
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<td>-----</td>
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</tr>
<tr>
<td>Th</td>
<td>9/3</td>
<td>Pulmonary Disease Continued</td>
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</tbody>
</table>
| T   | 9/8  | Enteral Nutrition | Text: Krause, Chapter 14  
Sakai:  
Please bring your enteral produce guide to class. |
| Th  | 9/10 | Enteral Nutrition Continued | |
| T   | 9/15 | Enteral Nutrition Practical work: Calculating Tube Feeding Requirements  
Sakai:  
1. American Gastroenterological Association Medical Position Statement: Guidelines for the Use of Enteral Nutrition. (Note: this is old but still comes up as one of the best articles on the topic)  
| Th  | 9/17 | Case Presentations  
Group 1: COPD with Respiratory Failure Case #27  
Group 2: Chronic Obstructive Pulmonary Disease #26 | |
| T   | 9/22 | Exam #1: Open Book (Introduction-Enteral Nutrition) | |
| Th  | 9/24 | The Immune and Musculoskeletal Systems | The Immune System and Food Allergies  
Text: Krause, Chapter 27  
Sakai:  
Food Allergy and Anaphylaxis Network: www.foodallergy.org |
| T   | 9/29 | The Musculoskeletal System  
Text: Krause, Chapter 40  
Sakai:  
| Th  | 10/1 | Neurological and Integumentary Systems | Neurological Disorders  
Text: Krause, Chapter 41 |
<table>
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<tr>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
</table>
| T   | 10/6 | The Ketogenic Diet | Text: Krause, Chapter 44  
Guest Speaker: Jennifer Gallagher MPH, RD, LDN  
Sakai:  
Study Guide: Neurology/Rehabilitation  
Virtual Dementia Tour: Friday, October 2, 10am-3pm |
| Th  | 10/8 | Neurological Disorders Continued and Case Presentation | Group 3: Alzheimer’s Disease Case #25 |
| T   | 10/13| The Integumentary System (Wound Healing) | Text: Krause, Chapter 21, pgs. 448-449 (pressure ulcers)  
Sakai:  
Assignment #2 Due: Virtual Dementia Tour Reflection |
| Th  | 10/15| No Class: Fall Break |
| T   | 10/20| The Hematological System |
| Th  | 10/22| Case Presentation | Group 4: Folate and Vitamin B12 Deficiencies |
| T   | 10/27| Parenteral Nutrition | Text: Krause, Chapter 14  
Review assessment materials from Nutrition 630 or Krause, Chapters 14-15; Appendix 29.  
Sakai:  
### 10/29
#### Parenteral Nutrition Continued
**Text:** Krause, Chapter 14
Review assessment materials from Nutrition 630 or Krause, Chapters 14-15; Appendix 29.

**Sakai:**

### 11/3
#### Parenteral Nutrition Practice: Calculating a TPN Order
**Assignment #3 Due:** Parenteral Nutrition

### 11/5
#### Case Presentation
**Group 5:** Metabolic Stress and Trauma: Open Abdomen Case #29

### Metabolic Stress and Critically Illness

### 11/10
#### Exam #2: (The Immune System through Parenteral Nutrition)

### 11/12
#### Sepsis, MODS, MSOF
**Text:** Krause, Chapter 39

**Sakai:**

### Neoplastic Disease

### 11/17
#### Neoplastic Disease
**Acute Therapy (Chemotherapy and Radiation)**
**Text:** Krause, Chapter 37

**Guest Speaker: Jennifer Spring RD, LDN**

**Study Guide: Oncology and HIV/AIDS**

**Assignment #4: Sepsis/Trauma**
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/19</td>
<td>Th</td>
<td>Acute Therapy and Hematoipoietic Cell Transplantation</td>
</tr>
</tbody>
</table>
| 11/24 | T | Case Presentation  
Group 6: Acute Lymphoblastic Leukemia Treated with Hematopoietic Cell Transplantation |
| 11/26 | Th | No Class: Thanksgiving Break |
| 12/1 | T | Metabolic Disorders  
Text: Krause, Chapter 44  
Guest Speaker: Surekha Pendyal, MeD, RD  
Sakai:  
1. National Newborn Screening & Genetics Resource Center: [http://genes-r-us.uthscsa.edu/educationalmaterials.htm](http://genes-r-us.uthscsa.edu/educationalmaterials.htm) please watch “The Story of Newborn Screening” by Harvey Levy, MD (10 part series).  
3. PKU News: [http://www.pkunews.org](http://www.pkunews.org)  
5. PPNG Building Block for Life Newsletter. 33 (2): 1-19, 2010 |
| 12/8 | T | Final Exam @ Noon (Sepsis through Metabolic Disorders and 1 Cumulative Case) |
**Case Studies:** There is a lot of material covered in the case studies so I will work with each group to identify which questions in the case study to focus on. Some of it will be didactic and some of it will be practical hands on. Please have your case study presentation to me 1-2 days prior to your presentation so I can review it and make changes if necessary. Please let me know your thoughts and concerns as the semester goes on and don’t wait until the course is finished.

| Group 1: COPD with Respiratory Failure Case #27 | Chung  
Konich  
Kuta  
Stephenson |
|------------------------------------------------|----------------------------------|
| Group 2: Chronic Obstructive Pulmonary Disease #26 | Christensen  
Kantak  
Levey  
Stewart |
| Group 3: Alzheimer’s Disease Case #25 | Bryant  
Janson  
McGinty  
Stritzinger |
| Group 4: Folate and Vitamin B12 Deficiencies | Bailey  
Horton  
Schille  
Vink |
| Group 5: Metabolic Stress and Trauma: Open Abdomen Case #29 | Al-banna  
Dailey  
Smith  
Walter |
| Group 6: Acute Lymphoblastic Leukemia Treated with Hematopoietic Cell Transplantation | Sodano  
White  
Croffut |

Presentation:
- September 17, 2015
- September 17, 2015
- October 8, 2015
- October 22, 2015
- November 5, 2015
- November 24, 2015