Welcome to NutB 316!

Welcome to Advanced Medical Nutrition Therapy! This semester we will be exploring a variety of common pathophysiological conditions and integrating this knowledge with the intervention of clinical nutrition therapies. We (Dr. Prelack and Prof. Kane, i.e., Kathy and Kelly) have been teaching this course for 13 years together and truly enjoy sharing our expertise with you. We will do our best to bring our clinical knowledge and skills into the classroom so that you will be prepared when you embark on your own clinical experience.

In order to maximize student experiences in the classroom, we will use material that is respectful of diversity and inclusion. Moreover, we understand that an essential part of this course is the diversity of student experiences and perspectives, which will maximize our learning as we progress through the semester.

As a student, you may experience a range of challenges that can interfere with learning. These mental health concerns or stressful events may diminish your academic performance. There are confidential resources available at Tufts that can assist you in managing these challenges. If you feel like your performance in class is being impacted by your experiences outside of class, please do not hesitate to come and talk with us. We want to be a resource for you.

Important Information:

Class Meetings: Asynchronous with in-person residency

Instructor(s):
Kelly Kane, MS, RD
kelly.kane@tufts.edu
Phone 617.636.8309

Kathy Prelack, PhD, RD
Kathrina.prelack@simmons.edu
Phone 617.371.4756

Semester Hour Units: 3 SHUs

Prerequisites: Graduate standing or instructor consent

Course Communications:
We appreciate feedback and any questions from students. You are welcome to email us (please cc both instructors in all communications). We would also be happy to set up a time to connect either in person or via zoom.

Office Hours:
Both instructors are available by appointment. Please feel free to connect to ask any questions about class material, assignments, or to discuss career paths.

Course Summary:
This course aims to expand student’s knowledge of nutritional biochemistry and physiology as related to selected pathophysiological conditions and various indices of nutritional status and integrate this knowledge with the
intervention of clinical nutrition therapies. Conditions with particular relevance to clinical nutrition are emphasized. Students will begin by learning about the basic or core elements of medical nutritional therapy. These include nutritional assessment, which incorporates the use of anthropometric, biochemical, and clinical data to determine nutritional status. Particular emphasis is placed on understanding energy expenditure and body composition and its components, and how these may change during physiological stress or illness. Students then learn about enteral and parenteral nutrition and fundamental aspects of nutrition support. These core elements are then applied in the study of various disease states and clinical nutrition therapy. Students also have the opportunity to explore diet and disease in an approved area of their interest through written and oral presentation.

**Course Goals:**
At the completion of the course, students should be able to:

1. Discuss the key elements of nutritional assessment and diet therapy, describe their alterations during various disease states and relate this information to support nutrition intervention strategies in individuals during altered pathological states.
2. Interpret information from medical, social, and nutritional histories, combined with biochemical and anthropometric indices during different pathophysiological states to assess nutritional status, develop nutrition care plans, and problem solve.
3. Accurately define, both in writing and orally, how pathophysiology of a selected disease state impacts nutritional status and what nutrition interventions are indicated.

**Texts or Materials:**

**How to be Successful in this Course:**
Students will be expected to read the assigned background materials and/or listen to the pre-recorded lectures as applicable each week. Supplemental readings, although not required, may also be posted and are highly recommended.

**Attendance Policy**
Upon joining this Master of Nutrition Science and Policy degree program, you become a member of a cohort, a learning group. Hopefully you will find the group experience provides you with a tremendous support system, a rich learning environment, and a long-lasting network of colleagues to learn with and from. As a member of a cohort in an intensive experiential learning community, your consistent and complete participation is an essential and necessary component to the group’s success. Absences jeopardize the academic integrity of the program as well as the quality of you and your colleague’s learning experiences.

Therefore, please arrange to be present at all residency sessions during this term. Written documentation is required for any missed time. If approved to miss residency time the student will be required to work with the faculty to ensure the content is provided and make-up work may be assigned. If the missed time is not approved the student’s final grade will be docked by 2% for every hour missed. Time extensions, make-up work, and a grade of Incomplete will only be given under the most extreme circumstances.

**Communication Policy**
Students should try to seek out information for themselves before contacting the instructor. The answers to your questions may have already been posted by your peers or the instructors in the discussion board, which can be
found on the Canvas course website. Please use the discussion board to post questions to your fellow students and the instructors about any course-related issues. If you cannot find your answer, contact the instructors via email as soon as possible. Please do not wait until the last minute. Since students may not all be in the same time zone, you must give us time to respond to your question. Faculty will respond within 48 hours.

Technical Support
Online course support is provided by Friedman support staff and/or IT Support. Please do not contact faculty for technical support. You should anticipate at least a 6-hour wait (Monday-Friday, 9:00am-5:00pm EST) before hearing back regarding a technical support request, although emails are typically returned in significantly less time.

Telephone: 617.636.3376
Email: Canvas@tufts.edu
Hours: 24 hours a day, seven days a week

- When emailing a technical support problem, please include as much information as possible (operating system, browser and version, a detailed description of the problem) and please be specific so we can expedite the troubleshooting process for you. You should only use your Tufts email address to submit support tickets.

Assignments and Grading:
Description of assignments, tests, and other required activities:
Assignments for this course include readings, lectures, quizzes, discussions, midterm exam, case studies, a clinical controversy discussion, and an essay review paper. For the most up to date information regarding assigned readings, instructions, and due dates please login to your Canvas course site and click on the tab labeled "Modules."

Clinical Applications (during residency)
To apply information learned in the Basic Core Lecture sessions in developing plans of care using the following format:
1) Complete nutritional assessment to include anthropometric, biochemical, clinical, and dietary assessment.
2) Provide recommendations on mode of nutritional therapy, rationale for suggested therapy, nutritional goals, and indications for altering nutrition regime if necessary.
3) Practice sample enteral and parenteral formula calculations
4) Problem-solve clinical challenges with respect to intolerance to feeds, change in clinical status, change in nutritional status, or alteration in metabolic state.
5) Provide outcome indicators for measuring success.

Quizzes
Online quizzes are provided to enhance your learning experience. There will be 8 quizzes throughout the semester. The quiz questions will come from the week’s lecture and material. You will take the quiz on the Canvas website. The quizzes will be available only until Sunday at 11:59 pm EST. There will be absolutely no make-up quizzes. Quizzes will be timed with a time limit of 30 minutes per quiz. Quizzes can be taken a maximum of two times and the highest of the two scores will be recorded. The lowest quiz grade will be dropped.

Online Discussions
There will be 2 online discussions for the course. All initial posts should be between 250-400 words in length are due on Thursday of the assigned week at 11:59 pm EST. After all of the initial posts are completed by your fellow students, choose one to reply to, and indicate to the group, in 200 – 250 words, whether it is similar or different from your opinion and what we can learn from these differences or similarities of opinion. In order to prevent overlap, please indicate on the discussion board when you have chosen a posting to reply to. Do this by creating
a reply to that initial posting and in the subject line put, "Claimed by [your name]." No other student should choose an initial posting that has already been claimed. All reply posts are due by Sunday of the assigned week by 11:59 pm EST.

**Midterm Exam**
The first half of the course will cover the Basic Core Lecture sessions (Nutritional and Biochemical Assessment; Energy Expenditure, Body Composition and Metabolic Support in Critical Illness; Enteral Nutrition and Immunonutrition; Parenteral Nutrition; Pediatric Nutritional Assessment). The untimed, short answer exam will cover this material.

**Case Studies**
There will be 5 case studies during the semester. Topics in specific pathological states and methods of nutrition therapy during these disease states that are presented in the lectures both by the instructors and guest lecturers will be addressed and students will answer questions based on the case studies. Case studies are due on Sunday by 11:59 pm EST.

**Clinical Controversy Discussion**
The goal of the Clinical Controversy discussion is to help students develop skills and competence in 1) interpreting scientific research as presented in peer reviewed journals, 2) abstracting relevant information, and 3) communicating findings effectively and persuasively to others. In this exercise, students will be assigned a scientific paper on a controversial clinical topic. Discussion of the pros and cons of the opposing papers will be discussed by the class. The Clinical Controversy discussion seeks to allow for a rich discussion of the topic and requires the use of evidence to make an argument for or against a certain practice.

**Essay Review Paper** (approximately 10-15 pages, double-spaced)
The paper topic will be chosen by the student and approved by the instructors. Paper topics are due mid semester. The topic should not be one that is presented as part of the scheduled lectures, although special instances of a general topic discussed during lecture is acceptable. The paper should reflect the current state of knowledge in the particular area as supported by research and expert opinion in the field. The content’s focus should be on the nutritional implications and dietary management of the specific disease state or condition. An overview of physiological mechanisms of the disease and aspects of treatment should be included. The paper should include an introduction, review of literature, discussion of important findings, and conclusion. The conclusion should include directions of the future research and controversies if applicable.

**Online Discussion Grading Criteria**

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<thead>
<tr>
<th>Quality of Posting/Reply</th>
<th>Points</th>
<th>Details</th>
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<tbody>
<tr>
<td>No Posting</td>
<td>0</td>
<td>Not Acceptable</td>
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<tr>
<td>Postings are not relevant to questions posed</td>
<td>5</td>
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<tr>
<td>Postings reflect reading and are relevant to questions posed</td>
<td>10</td>
<td>Met minimum standards</td>
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<tr>
<td>Postings show a strong grasp of material, original thought with</td>
<td>20</td>
<td>Exceeded minimum standards</td>
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<td>solid facts to back-up opinions and statements. Directly</td>
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<td>contributes to the discussion and communicates well with other</td>
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<td>students. Shows an ability to apply nutrition related topics to</td>
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<td>real life situations. At least 2-3 quality postings meeting word</td>
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<td>Course Assignments</td>
<td>Grading Weight</td>
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<tr>
<td>Midterm Exam</td>
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<tr>
<td>Case Studies</td>
<td>25%</td>
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<tr>
<td>Clinical Controversy</td>
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<tr>
<td>Paper</td>
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<tr>
<td>Online Discussions/Quizzes</td>
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**Grading Range:**

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<td>67-69.99</td>
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<td>74-76.99</td>
<td>D-</td>
<td>60-63.99</td>
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<tr>
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<td>87-89.99</td>
<td>C-</td>
<td>70-73.99</td>
<td>F</td>
<td>0-59.99</td>
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A passing course grade at the Friedman School is a B- or better. At the Friedman School an A+ grade and an A grade are both calculated as 4.00 grade points in a student’s grade point average.
Instructions for Submission of Assignments and Exams:

Class Policies, Expectations, and Evaluation

Students will have only one opportunity to complete each assignment, and all assignments are due on the date/time specified. Students will have only one opportunity to complete the exam. Each exam must be completed and successfully submitted within the specified time period. Students who are unable to complete an assignment on time for any reason should notify the instructors by email (preferred) or phone call prior to the deadline, with a brief explanation for why the extension is needed.

There are NO opportunities for extra credit work.

Students are expected to complete all assignments on their own, i.e. without assistance from other students, faculty, etc. unless otherwise noted. All outside documents used in the preparation of students’ work must be properly referenced. (References to the textbook are not required).

The following guidelines are used in evaluating course performance:

1. Assignments will be evaluated on the basis of completeness, originality, scientific soundness, and relevance to the assigned topic.

2. Written work will be evaluated on the quality of thought, completeness, and adherence to guidelines, scientific integrity, and ability to incorporate and communicate ideas and information effectively.

3. Adherence to instructions and guidelines of the assignments.

4. Participation in online discussions. Missed work will affect your grade unless prior arrangements were requested and approved in writing by the instructors for make-up work.

Academic Conduct:

You are responsible for upholding the highest standards of academic integrity, as specified in the Friedman School’s Policies and Procedures Handbook located at this web page: https://nutrition.tufts.edu/about/policies-and-procedures, as well as Tufts University’s policies (https://students.tufts.edu/community-standards/support-resources/academic-integrity-resources). This includes understanding and avoiding plagiarism, which is defined as the unacknowledged use of someone else’s published or unpublished work. It is the responsibility of each student to understand and comply with academic integrity standards, as violations will be sanctioned by penalties ranging from failure on an assignment and the course to dismissal from the school.

Accommodation of Disabilities:

We will do our best to ensure each of you has the resources you need to succeed. Tufts University is committed to providing equal access and support to all students through the provision of reasonable accommodations so that each student may access their curricula and achieve their personal and academic potential. If you have a disability that requires reasonable accommodations, please contact the Friedman School Assistant Dean of Student Affairs at 617-636-6719 to make arrangements for determination of appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

On-Campus and Remote Participation during the Residency:

- This course will be delivered asynchronously and remotely, except during the in-person residency week.
- If you are ill, please do NOT come to campus during the residency. Contact the instructors to let them know you would like to participate by Zoom.
If you will need to participate remotely for a particular class session, please contact the instructor to receive approval in advance.

In the event of inclement weather leading to campus closure the instructor may choose to conduct the class remotely by Zoom.

Some class sessions may be recorded. All students in the course will have access to these recordings. Massachusetts law states that students have the right to not have their voices recorded in the classroom; if this is your wish you may refrain from participating verbally in class when the session is being recorded.

Tufts Zoom during Residency:
The Friedman School’s on-campus courses may be offered by Tufts Zoom (https://access.tufts.edu/zoom) on days when the Boston campus is closed due to pandemic, weather, or a temporary cancellation issue. Students should expect to be notified by email at least 24 hours prior to class in the event that class is cancelled and will be provided with the Zoom link for students to attend any remote class sessions during the normally scheduled class period. The Zoom meeting video and audio will be recorded and posted on the course’s Canvas site (https://login.canvas.tufts.edu/) when completed.

Course Overview:

You will find the course’s Canvas site is organized by weekly modules, with all readings posted the week they are assigned, and assignments posted when you are ready to begin them, and clear instructions for each assignment submission. In general, students are expected to read the assigned chapters and readings, listen to the recorded lectures, and then complete the assigned activities/assignments.

<table>
<thead>
<tr>
<th>WEEK/DATE/TIME</th>
<th>COURSE TOPIC</th>
<th>CHAPTERS</th>
<th>ACTIVITIES/ASSIGNMENTS</th>
</tr>
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<tbody>
<tr>
<td>Week 1</td>
<td>Introduction</td>
<td>1 and 2</td>
<td>Nutrition and Biochemical Assessment Quiz due 5/26 by 11:59 pm EST</td>
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<tr>
<td>May 22 – May 26</td>
<td>Nutrition and Biochemical Assessment</td>
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<tr>
<td>Week 2</td>
<td>Energy Expenditure, Body Composition and Metabolic Support in Critical Illness</td>
<td>5 and 6</td>
<td>Energy Expenditure, Body Composition, and Metabolic Support in Critical Illness Quiz due 6/2 by 11:59 pm EST</td>
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<td>May 27 – June 2</td>
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<tr>
<td>Week 3</td>
<td>Enteral Nutrition/Immunonutrition and Parenteral Nutrition</td>
<td>3 and 4</td>
<td>Residency: Monday June 3 (9 am – 5 pm) Tuesday June 4 (1 pm – 5 pm)</td>
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<td>June 3 – June 9</td>
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<tr>
<td>Week 4</td>
<td>Pediatric Nutrition Assessment</td>
<td>23</td>
<td>Online Discussion: Enteral vs. Parenteral Debate; Pediatric Nutrition Quiz due 6/16 by 11:59 pm EST</td>
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<tr>
<td>June 10 - June 16</td>
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<tr>
<td>Week 5</td>
<td>Nutrition in Developmental Disabilities and Childhood Weight Management</td>
<td>24 and 26</td>
<td>Pediatric Weight Management Quiz due 6/23 by 11:59 pm EST</td>
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<td>June 17 – June 23</td>
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<tr>
<td>Week 6</td>
<td>Weight Management and Diabetes</td>
<td>8 and 9</td>
<td>Exam Due 6/30 by 11:59 pm EST</td>
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<td>June 24 – June 30</td>
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<tr>
<td>Week 7</td>
<td>Cardiovascular Disease and Kidney Disease</td>
<td>10 and 14</td>
<td>Nutrition and CVD Quiz and Kidney Disease Case Study due 7/7 by 11:59 pm EST</td>
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<td>July 1 – July 7</td>
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</table>
| Week 8   | July 8 – July 14 | Nutrition in Oral Health and Food Allergies | 11 and papers | Allergy Quiz and Oral Health Case Study due 7/14 by 11:59 pm EST  
|         |                 |                                           |              | Paper Topics Due by 7/14 by 11:59 pm EST  
| Week 9   | July 15 – July 21 | Nutrition in Liver Disease and Nutrition and Cancer | 15 and 19 | Nutrition in Cancer Quiz and Nutrition and Liver Disease Case Study due 7/21 by 11:59 pm EST  
| Week 10  | July 22 – July 28 | Gastroenterology (Malnutrition, Pancreatitis, Inflammatory Bowel Disease, Short Bowel Syndrome) | 12 and 13 | Gastroenterology Case Study Due 7/28 by 11:59 pm EST  
| Week 11  | July 29 – Aug 4   | Eating Disorders                          | 25         | Eating Disorder Quiz and Eating Disorder Case Study due 8/4 by 11:59 pm EST  
| Week 12  | Aug 5 – Aug 11    | Clinical Controversy                      | Papers     | Controversy Panel Discussion  

This schedule is subject to modification at the instructor’s discretion.

Topics, Assignments, and Learning Objectives for Each Class Session:

**Week 1**

**Course Topics:** Nutrition Assessment and Biochemical Assessment

**Learning Objectives:**
Upon completion of this class, students will be able to:

**Nutritional Assessment:**
- Define and differentiate between nutrition screening and nutrition assessment.
- Name the components of a nutrition assessment and describe the features of each.

**Biochemical Assessment:**
- Identify the serum electrolytes and symptoms and potential causes of deficiencies and excesses.
- Name at least 2 markers of visceral protein status and the advantages and disadvantages associated with the use of each.
- Identify the components of a complete blood count and iron study and the role of each in the diagnosis of macrocytic and microcytic anemias.

**Required Reading/Assignments:**
- Kane and Prelack: Chapters 1 and 2
- Watch Nutrition Assessment and Biochemical Assessment recorded lectures

**Assignments Due:**
- Nutrition and Biochemical Assessment quiz due by 5/26 by 11:59 pm
Week 2  
**Course Topics:** Energy Expenditure/Body Composition and Metabolic Support in Critical Illness  
**Learning Objectives:**  
Upon completion of this class, students will be able to:  
Energy Expenditure, Body Composition and Metabolic Support in Critical Illness:  
- Understand the inflammatory response following critical illness and the metabolic sequellae that accompany it particularly as it relates to energy and protein metabolism.  
- Identify the effects of physiologic stress and altered nutrition on body composition.  
- Determine appropriate goals for nutrition support using information related to energy expenditure, protein turnover, and substrate utilization during critical illness.  
- Using the burn injury model, apply the concepts of assessment and metabolic support in critically ill.  

Required Reading/Assignments:  
- Kane and Prelack: Chapters 5 and 6  
- Watch Energy Expenditure/Body Composition and Metabolic Support in Critical Illness recorded lecture  

Assignments Due:  
- Energy Expenditure, Body Composition, and Metabolic Support in Critical Illness quiz due by 6/2 by 11:59 pm EST.

Week 3 (Residency)  
**Course Topics:** Nutrition-focused Physical Examination (NFPE), Enteral Nutrition/Immunonutrition, and Parenteral Nutrition Support  
**Learning Objectives:**  
Upon completion of this class, students will be able to:  
Nutrition-focused Physical Examination:  
- Identify the physical features that can be influenced by an individual’s nutritional status.  

Enteral Nutrition Support and Critical Care Practice Guidelines:  
- Describe different types of enteral feedings, their distinguishing characteristics, and how they are provided.  
- Determine appropriate route, timing, and composition of enteral feeding in various patient settings.  
- Identify tube feeding complications and strategies for their management.  
- Describe composition of specialty enteral feedings and indications for their use.  
- Review current Critical Care Practice Guidelines.  
- Calculate a sample enteral nutrition regimen.  

Parenteral Nutrition Support:  
- Name the components of parenteral nutrition.  
- Identify the indications and contraindications for central and peripheral parenteral nutrition.  
- Describe the potential mechanical and metabolic complications associated with use of parenteral nutrition.  
- Calculate a sample parenteral nutrition regimen.  

Required Reading/Assignments:  
- Kane and Prelack: Chapters 3 and 4  
- Watch the 2 posted NFPE videos  
- Complete the NFPE worksheet

Week 4  
**Course Topics:** Pediatric Nutrition Assessment and Failure to Thrive  
**Learning Objectives:**  
Upon completion of this class, students will be able to:  
Pediatric Nutrition Assessment:  
- Describe assessment of nutritional status in children using appropriate tools and markers.  
- Define energy and protein requirements in well and diseased children.  
- Identify specific nutritional concerns during the nutritional support and management of hospitalized pediatric patients.  

Required Reading/Assignments:  
- Kane and Prelack: Chapter 23
Assignments Due:
- Watch Pediatric Nutrition Assessment recorded lecture
- Pediatric Nutrition quiz due by 6/16 11:59 pm EST
- Complete Online Discussion: EN vs PN debate. Initial post by Thursday by 6/13 by 11:59 EST and follow up by Sunday 6/16 by 11:59 pm EST

Week 5
Course Topics: Nutrition in Developmental Disabilities and Nutritional Management of Childhood Obesity
Learning Objectives:
Upon completion of this class, students will be able to:

Nutrition in Developmental Disabilities:
- Describe various developmental disabilities, such as cerebral palsy, autism, ADHD, and Down Syndrome.
- Identify nutrition related concerns of these populations and interventions to address these concerns.

Nutritional Management of Childhood Obesity:
- Define childhood obesity and the criteria for its diagnosis.
- Describe assessment of nutritional status in children with obesity using appropriate tools and markers.
- Identify intervention and treatment methods in childhood obesity.
- Describe the role of medical nutrition therapy and the role of the registered dietitian in the management of childhood obesity.

Required Reading/Assignments:
- Kane and Prelack: Chapters 24 and 26
- Watch Nutrition in Developmental Disabilities and Nutritional Management of Childhood Obesity recorded lectures

Supplementary Readings:

Assignments Due:
- Pediatric Weight Management quizzes due by 6/30 11:59 pm EST.

Week 6
Course Topics: Weight Management and Diabetes Mellitus
Learning Objectives:
Upon completion of this class, students will be able to:

Energy Balance:
- State the three components of total energy expenditure.
- Provide examples of at least 3 dietary factors that influence intake and describe how they could be employed to alter intake in a patient.
- State how the circulating concentrations of leptin and ghrelin would be expected to change with weight gain and weight loss.

Obesity:
- Provide an overview of the common etiologies of obesity.
- Discuss obesity treatment options for each BMI classification.
- State your opinion about whether low carbohydrate diets are appropriate for weight loss.
- Define obesity and its causes.
- Describe the relationship between obesity and health.
- Identify useful methods of nutrition assessment in obesity.

Obesity Management and Treatment:
- Describe both medical and surgical treatment approaches to obesity and their success rates

Diabetes Mellitus:
- Identify the 4 classifications of DM and describe the features and risk factors of each.
- Name the classes of human insulins and analogues and describe the method of action of each.
- Describe the components of medical nutrition therapy for type 1 and type 2 DM.
Required Reading/Assignments:
  o Kane and Prelack: Chapters 8 and 9
  o Watch Weight Management (Energy Balance, Obesity, and Obesity Management and Treatment) and Diabetes Mellitus recorded lectures

Supplementary Readings/Assignments:
  o Optional lecture: Intuitive Eating

Assignments Due:
  o Midterm Exam due by 6/30 11:59 pm EST

Week 7
Course Topics: Nutrition in Hypertension and Cardiovascular Disease and Nutrition in Kidney Disease

Learning Objectives:
Upon completion of this class, students will be able to:

Nutrition in Hypertension and Cardiovascular Disease:
  o Describe the role of dietary modifications in the prevention and treatment of cardiovascular disease.

Nutrition in Kidney Disease:
  o Describe the causes and management of chronic kidney disease.
  o Name the nutritional concerns and outline the nutritional requirements and dietary modifications associated in chronic kidney disease.
  o Describe the methods of renal replacement therapy and the nutritional requirements and dietary modifications associated with each in end stage kidney disease.

Required Reading/Assignments:
  o Kane and Prelack: Chapters 10 and 14
  o Watch Nutrition in CVD and Nutrition in Kidney Disease recorded lectures

Assignments Due:
  o Nutrition and CVD quiz due by 7/7 11:59 pm EST
  o Diabetes Case Study due by 7/7 11:59 pm EST

Week 8
Course Topics: Nutrition in Oral Health and Food Allergies

Learning Objectives:
Upon completion of this class, students will be able to:

Nutrition and Oral Health:
  o Describe the interrelationship between nutrition and oral health.
  o Outline common oral problems through the life cycle.
  o Identify how poor oral health affects nutritional status and how to eat for optimal oral health

Food Allergies:
  o Describe the relationship between food allergens and the immunological response.
  o Distinguish between food allergies, food intolerances, and food sensitivities.
  o Identify symptoms related to food allergies and food intolerances.

Required Reading/Assignments:
  o Kane and Prelack: Chapter 11
  o Watch Nutrition in Oral Health and Food Allergies recorded lectures

Supplementary Readings:

Assignments Due:
  o Allergy quiz due by 7/14 11:59 pm EST
  o Nutrition in Oral Health Case Study due by 7/14 11:59 pm EST
  o Submit Paper Topic by 7/14 11:59 pm EST
Week 9
Course Topics: Nutrition in Liver Disease and Nutrition and Cancer
Learning Objectives:
Upon completion of this class, students will be able to:
Nutrition in Liver Disease:
  o Describe the association between liver disease and malnutrition.
  o Name the possible causes and treatment of various types of liver disease.
  o Identify the signs and symptoms of liver disease and the nutritional implications of each
  o Define the consequences of liver disease (i.e., portal hypertension, varices, ascites, and hepatic
encephalopathy) and describe the nutritional management of each.
Nutrition and Cancer:
  o Define cancer, identify types of cancer, potential causes, and treatment options.
  o Identify the nutritional implications associated with cancer and its treatment.
  o Describe conventional nutritional therapies and complementary and alternative medicine in cancer treatment
Required Reading/Assignments:
  o Kane and Prelack: Chapters 15 and 19
Assignments Due:
  o Nutrition in Cancer quiz by 7/21 11:59 pm EST
  o Nutrition in Liver Disease Case Study by 7/21 11:59 pm EST

Week 10
Course Topics: Nutrition in Gastroenterology
Learning Objectives:
Upon completion of this class, students will be able to:
Nutrition in Gastroenterology:
  o Define and differentiate maldigestion and malabsorption.
  o Identify factors with cause maldigestion and malabsorption.
  o Describe the efficacy and safety of using probiotics and prebiotics under specific clinical conditions.
  o Describe the clinical manifestations and nutritional management of several gastroenterological disease states,
such as pancreatitis and inflammatory bowel disease.
Required Reading/Assignments:
  o Kane and Prelack: Chapters 12 and 13
  o Watch Gastroenterology recorded lecture
Assignments Due:
  o Gastroenterology Case Study due by 7/28 11:59 pm EST

Week 11
Course Topics: Eating Disorder
Learning Objectives:
Upon completion of this class, students will be able to:
Eating Disorders:
  o Recognize the differences between disordered eating and eating disorders and classify eating disorders.
  o Identify nutrition related consequences of disordered eating and eating disorders.
  o Describe the role of the registered dietitian and of medical nutrition therapy in the treatment of eating
disorders.
Required Reading/Assignments:
  o Kane and Prelack: Chapter 25
  o Watch Eating Disorder recorded lecture
Assignments Due:
  o Complete Eating Disorder quiz by 8/4 11:59 EST
  o Complete Eating Disorder Case Study by 8/4 11:59 EST

Week 12
Course Topics: Clinical Controversy Panel

Learning Objectives:
Upon completion of this class, students will be able to:
  o Interpret scientific research as presented in peer reviewed journals
  o Abstract relevant information
  o Communicate findings effectively and persuasively to others

Required Reading/Assignments:
  o Read assigned paper

Assignments Due:
  o Complete Online Discussion: Clinical Controversy. Initial post by Thursday by 8/8 11:59 EST and follow up post by Sunday 8/11 11:59 pm EST

Week 13
Assignments Due:
  o Submit Research Paper by 8/18 11:59 pm EST

This schedule is subject to modification at the instructor’s discretion.