Syllabus
HNSC 2130
Nutrition Through the Life Cycle
(Winter 2023)

University of Manitoba

The University of Manitoba campuses are located on original lands of Anishinaabeg, Cree, Oji-Cree, Dakota and Dene peoples, and on the homeland of the Métis Nation. We respect the Treaties that were made on these territories, we acknowledge the harms and mistakes of the past, and we dedicate ourselves to move forward in partnership with Indigenous communities in a spirit of reconciliation and collaboration.
# TABLE OF CONTENTS

- COURSE DETAILS ........................................................................................................ 3
- INSTRUCTOR CONTACT INFORMATION .................................................................. 3
- COURSE DESCRIPTION ............................................................................................... 4
- COURSE GOALS .......................................................................................................... 4
- COURSE LEARNING OBJECTIVES ............................................................................. 4
- TEXTBOOK, READINGS, AND COURSE MATERIALS ............................................... 5
- USING COPYRIGHTED MATERIAL ........................................................................... 5
- COURSE TECHNOLOGY .............................................................................................. 5
- EXPECTATIONS: I EXPECT YOU TO ........................................................................... 5
- EXPECTATIONS: YOU CAN EXPECT ME TO ............................................................. 6
- CLASS SCHEDULE AND COURSE EVALUATION ..................................................... 7
- GRADING ...................................................................................................................... 8
- VOLUNTARY WITHDRAWAL ....................................................................................... 8
- CASE STUDY AND TEST DESCRIPTIONS ................................................................. 8
- ASSIGNMENT FEEDBACK .......................................................................................... 8
- CLASS PARTICIPATION .............................................................................................. 8
- UNIVERSITY SUPPORT OFFICES & POLICIES ....................................................... 9
- FOUNDATIONAL KNOWLEDGE CONTENT AREAS FOR DIETETICS EDUCATION .... 13
COURSE DETAILS

Course Title & Number: HNSC 2130 Nutrition Through the Life Cycle

Number of Credit Hours: 3.0

Class Times & Days of Week: Thursdays, 6:00 pm – 8:45 pm

Location for classes/labs/tutorials: 207 Human Ecology

Pre-Requisites: HNSC 1210

Instructor Contact Information

Instructor(s) Name & Preferred Form of Address: Dr. James (Jim) D. House

Office Location: 204 Richardson Centre for Food Technology and Research

Office Hours or Availability: Students should email me to set up an appointment. I will ensure that we can meet as soon as possible after your initial contact. Email: james.house@umanitoba.ca; Additionally, I will be available 30 minutes before and after class for questions and discussions.

Office Phone No. 204-474-8199

Email: james.house@umanitoba.ca

Please ensure to add the course code to your subject line

Note: All email communication must conform to the Communicating with Students university policy.

Contact: Email is the preferred method of communication; Please ensure that you add the course code (e.g. Question for HNSC 2130) to the email’s subject line
Course Description

U of M Course Calendar Description
Examination of nutritional needs throughout the life cycle, the nutritional concerns of different age groups and the development of healthy eating practices.

General Course Description
This course is designed to advance students’ understanding of the importance of nutrition across the life cycle, from pre-conception through to an aging population. Drawing heavily from the required readings, this course is designed to advance critical thinking skills on the role of nutrition in growth and development, and in the maintenance of healthy aging. Case studies will be used to allow students the opportunity to engage with the course material in a manner that is relevant and accessible. All students should feel free to engage in open discussion during the lecture period.

Course Goals
The aim of this course is to provide students with information about the changes in nutritional needs as humans develop, from pre-conception through to aging adults. Students will advance their critical thinking skills through the use of case studies and classroom discussions as we reflect on the human condition and the role that nutrition plays across the life cycle.

Course Learning Objectives
The overall objective of this course is to develop an understanding of nutrition across the life cycle with following sub-objectives.

- Identify the macro- and micronutrients critical for normal human growth and development
- Develop an understanding for the biological basis of nutrient requirements, from conception through to older adults
- Recognize the health consequences of under or excess nutrient intake at critical life stages
- Understand the rationale behind major public health nutritional interventions, particular in Canada
- Understand how additional lifestyle factors can affect nutrient requirements
- Identify socioeconomic and cultural barriers to meeting nutrient needs
Textbook, Readings, and Course Materials


The required textbook is available for purchase from the University of Manitoba Bookstore University of Manitoba Bookstore ([http://bookstore.umanitoba.ca/SelectTermDept](http://bookstore.umanitoba.ca/SelectTermDept)) in both paper and e-book format. Please order your materials immediately, if you have not already done so.

*Please note:* We will be using this textbook extensively during this course and readings will be expected to be completed in advance of all classes. Please ensure that you have an available copy.

**Supplementary readings** – All supplementary readings will be posted on UMLearn.

Using Copyrighted Material

Please respect copyright. We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and university guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website, unless an exception to the *Copyright Act* applies or written permission has been confirmed. For more information, see the University’s Copyright Office website at [http://umanitoba.ca/copyright/](http://umanitoba.ca/copyright/) or contact um_copyright@umanitoba.ca.

Course Technology

If you are using an ebook version of the required textbook, please note that the classroom has limited power receptacles. Please ensure that your devices are fully charged before coming to class.

Students will be required to access UMLearn for course notes, supplementary readings and uploading assignments. You can access the course content for HNSC 2130 from the main access page of UMLearn.

Additionally, please recognize that it is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner.

Expectations: I Expect You To

- Come to class having read the assigned readings. This course format will work best if you are prepared via the readings so that we can concentrate on the areas that may require further clarification and also so that we can delve into certain areas in more detail.
- Participate in the classroom discussions. We will have an open and accessible classroom environment. I encourage a diversit of opinions in relation to the subject material and expect students to engage with the lecture material. Participation will be further encourge via a specific mark allocation.
- I will treat you with respect and would appreciate the same courtesy in return. See [Respectful Work and Learning Environment Policy](#).
- I expect you to follow these policies around Class Communication, Academic Integrity, and Recording Class Lectures.
**Class Communication:**
You are required to obtain and use your University of Manitoba email account for all communication between yourself and the university. All communication must comply with the Electronic Communication with Student Policy: http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html.

**Academic Integrity:**
Each student in this course is expected to abide by the University of Manitoba Academic Integrity principles. Always remember to reference the work of others that you have used. Also be advised that you are required to complete your assignments independently unless otherwise specified. If you are encouraged to work in a team, ensure that your project complies with the academic integrity regulations. You must do your own work during exams. Inappropriate collaborative behavior and violation of other Academic Integrity principles, will lead to the serious disciplinary action. Visit the Academic Calendar, Student Advocacy, and Academic Integrity web pages for more information and support.

**Recording Class Lectures:**
No audio or video recording of lectures or presentations is allowed in any format, openly or surreptitiously, in whole or in part without permission from Dr. Jim House. Course materials (both paper and digital) are for the participant’s private study and research.

**Student Accessibility Services:**
The University of Manitoba is committed to providing an accessible academic community. Students Accessibility Services (SAS) offers academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

- Student Accessibility Services
- 520 University Centre
- Phone: (204) 474-7423
- Email: Student_accessibility@umanitoba.ca

**Expectations: You Can Expect Me To**
- Maintain a collegial and safe learning environment that fosters a diversity of opinions and perspectives
- Be available both before and after class for questions
- Be responsive to your emails related to course questions or to set up a meeting time (within 24 hours)
- Return assignments and examinations in a timely (7 day; next class) manner
- Be courteous and professional in my communications and lectures
## CLASS SCHEDULE AND COURSE EVALUATION

This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students but such changes are subject to Section 2.8 of ROASS.

<table>
<thead>
<tr>
<th>Date</th>
<th>Module</th>
<th>Required Readings</th>
<th>Assessments</th>
<th>Marks</th>
<th>Assignments and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-Jan-23</td>
<td>Intro &amp; Review; Nutrition Basics</td>
<td>Chapters 1 -3</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>19-Jan-23</td>
<td>Pre-conception; Pregnancy</td>
<td>Chapters 4 &amp; 5</td>
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<td></td>
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<tr>
<td>26-Jan-23</td>
<td>Pregnancy; Lactation</td>
<td>Chapters 6 &amp; 7</td>
<td>Case Study 1</td>
<td>5</td>
<td>Folate &amp; Gluten intolerance - Case study; Due Feb, 2, 2023</td>
</tr>
<tr>
<td>02-Feb-23</td>
<td>Lactation; Infancy</td>
<td>Chapters 8 &amp; 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09-Feb-23</td>
<td>Infancy</td>
<td></td>
<td>TERM TEST 1</td>
<td>20</td>
<td>Chapters 1 to 7; Course notes</td>
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<tr>
<td>16-Feb-23</td>
<td>Toddlers; Pre-adolescence</td>
<td>Chapters 10 &amp; 11</td>
<td>Case Study 2</td>
<td>5</td>
<td>Vitamin D in infancy - Case Study; Due March 2, 2023</td>
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<tr>
<td>23-Feb-23</td>
<td>NO CLASS - READING WEEK</td>
<td>Chapters 12 &amp; 13</td>
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<tr>
<td>02-Mar-23</td>
<td>Pre-adolescence; Adolescence</td>
<td>Chapters 14 &amp; 15</td>
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<tr>
<td>09-Mar-23</td>
<td>Adolescence; Adulthood</td>
<td>Chapters 16 &amp; 17</td>
<td>Case Study 3</td>
<td>5</td>
<td>Iron Deficiency Anemia - Case Study; Due March 16, 2023</td>
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<tr>
<td>16-Mar-23</td>
<td>Adulthood</td>
<td></td>
<td>TERM TEST 2</td>
<td></td>
<td>Chapters 8 to 13; Course notes</td>
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<tr>
<td>23-Mar-23</td>
<td>Nutrition &amp; Aging</td>
<td>Chapters 18 &amp; 19</td>
<td></td>
<td>20</td>
<td>Vitamin B12 - Case Study; Due April 6, 2023</td>
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<tr>
<td>30-Mar-23</td>
<td>Nutrition &amp; Aging</td>
<td></td>
<td>Case Study 4</td>
<td>5</td>
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<tr>
<td>06-Apr-23</td>
<td>Review</td>
<td></td>
<td></td>
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<tr>
<td>Exam Period</td>
<td>FINAL EXAM</td>
<td></td>
<td>FINAL EXAM</td>
<td>25</td>
<td>Participation</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
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</tbody>
</table>
Grading

Indicate your grading scale. A sample is given below that you can adjust to your course expectations.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage out of 100</th>
<th>Grade Point Range</th>
<th>Final Grade Point</th>
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</thead>
<tbody>
<tr>
<td>A+</td>
<td>90.0 - 100.0</td>
<td>4.25-4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>A</td>
<td>80.0 - 89.9</td>
<td>3.75-4.24</td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>75.0 - 79.9</td>
<td>3.25-3.74</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>70.0 - 74.9</td>
<td>2.75-3.24</td>
<td>3.0</td>
</tr>
<tr>
<td>C+</td>
<td>65.0 – 69.9</td>
<td>2.25-2.74</td>
<td>2.5</td>
</tr>
<tr>
<td>C</td>
<td>60.0 – 64.9</td>
<td>2.0-2.24</td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>50-59.9</td>
<td>Less than 2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Less than 50</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Voluntary Withdrawal

The Volunteer Withdrawal (VW) deadline for Winter 2023 courses is March 22, 2023.

Students who did not drop the course by the deadline would be assigned a final grade. The withdrawal of courses will be recorded on your official transcript. Please refer to the Registrar’s Office web page for more information. I am willing to discuss your progress at any time and to explore strategies for improvement prior the withdrawal date. Please consult with me before you decide to withdraw so that alternatives can be explored.

Case Study and Test Descriptions

Term Tests and Final Exam: Term Tests 1 and 2 and the Final Exam will be a combination of multiple choice, short answer and interpretive questions. Tests and the final exam will be based on the assigned readings and full class notes, as indicated in the table above. The Final Exam will be scheduled by the Registrar’s Office.

Case Studies: Case studies will be provided in class as indicated in the table above and will be due on the respective due dates. Case studies will feature a description of the case with follow up questions and interpretation required. Class time will be available to work in small discussion groups. Case study responses, in electronic format (Word Document; PDF; etc..) must be uploaded to UMLearn by 5:00 pm on the assigned due date. Late submissions will be penalized by 20% per day unless permission has been received. Students will need to discuss all deadline challenges with the instructor. A rubric for the case studies will be provided to the class in advance of the first case study assignment.

Assignment Feedback

Feedback on case studies will include comments and grades according the case study rubric. Comments and marks will be available within one week of submission.

Class Participation

Class attendance and engagement will be assessed out of a total mark of 15% of the final grade. It is imperative that all students attend class to supplement course notes and also to integrate knowledge not provided in the text book. This relates particularly to the Canadian perspective.
UNIVERSITY SUPPORT OFFICES & POLICIES

Instructors shall provide to every student the information on university support offices and policies in Schedule “A” within the first week of classes, either through a paper copy and/or via the university’s student information system (i.e., Aurora, UM Learn, or such other university information system as may be approved by the university from time to time).

Schedule “A”

Section A: Academic supports available to Students.

Writing and Learning Support

The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the writing process, whether you are just beginning to work on a written assignment or already have a draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few days before your paper is due so that you have time to work with the tutor’s feedback.

These Academic Learning Centre services are free for U of M students. For more information, please visit the Academic Learning Centre website at: http://umanitoba.ca/student/academiclearning/

You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 205 Tier Building.

University of Manitoba Libraries (UML)

As the primary contact for all research needs, your liaison librarian can play a vital role when completing academic papers and assignments. Liaisons can answer questions about managing citations, or locating appropriate resources, and will address any other concerns you may have, regarding the research process. Liaisons can be contacted by email or phone, and are also available to meet with you in-person. A complete list of liaison librarians can be found by subject: http://bit.ly/WcEbA1 or name: http://bit.ly/1tJ0bB4. In addition, general library assistance is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne campuses, as well as in many Winnipeg hospitals. For a listing of all libraries, please consult the following: http://bit.ly/1sXe6RA. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries’ homepage: www.umanitoba.ca/libraries.
Section B: Statement regarding mental health supports.

For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.

Student Counselling Centre
Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling. Student Counselling Centre: http://umanitoba.ca/student/counselling/index.html
474 University Centre or S207 Medical Services
(204) 474-8592

Student Support Case Management
Contact the Student Support Case Management team if you are concerned about yourself or another student and don’t know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team. Student Support Intake Assistant http://umanitoba.ca/student/case-manager/index.html
520 University Centre
(204) 474-7423

University Health Service
Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation. University Health Service http://umanitoba.ca/student/health/
104 University Centre, Fort Garry Campus
(204) 474-8411 (Business hours or after hours/urgent calls)

Health and Wellness
Contact our Health and Wellness Educator if you are interested in peer support from Healthy U or information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault. Health and Wellness Educator https://umanitoba.ca/student/health-wellness/welcome-about.html
britt.harvey@umanitoba.ca

Live Well @ UofM
For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site: http://umanitoba.ca/student/livewell/index.html
Section C: Notice with respect to copyright:

All students are required to respect copyright as per Canada’s Copyright Act. Staff and students play a key role in the University’s copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community. Visit http://umanitoba.ca/copyright for more information.

Section D: Statement related to University and Unit policies, procedures, and supplemental information available on-line:

Your rights and responsibilities

As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The Academic Calendar http://umanitoba.ca/student/records/academiccalendar.html is one important source of information. View the sections University Policies and Procedures and General Academic Regulations.

While all of the information contained in these two sections is important, the following information is highlighted.

- If you have questions about your grades, talk to your instructor. There is a process for term work and final grade appeals. Note that you have the right to access your final examination scripts. See the Registrar’s Office website for more information including appeal deadline dates and the appeal form http://umanitoba.ca/registrar/

- You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the Academic Integrity regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support http://umanitoba.ca/academicintegrity/ View the Student Academic Misconduct procedure for more information.

- The University is committed to a respectful work and learning environment. You have the right to be treated with respect and you are expected conduct yourself in an appropriate respectful manner. Policies governing behavior include the:

  Respectful Work and Learning Environment
  http://umanitoba.ca/admin/governance/governing_documents/community/230.html

  Student Discipline
http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html and,

**Violent or Threatening Behaviour**
http://umanitoba.ca/admin/governance/governing_documents/community/669.html

- If you experience **Sexual Assault** or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Sexual Assault** policy may be found at:  
  http://umanitoba.ca/admin/governance/governing_documents/community/230.html  
  More information and resources can be found by reviewing the Sexual Assault site  
  http://umanitoba.ca/student/sexual-assault/  

- For information about rights and responsibilities regarding **Intellectual Property** view the policy  

For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site  
http://umanitoba.ca/faculties/

Contact an **Academic Advisor** within our faculty/college or school for questions about your academic program and regulations http://umanitoba.ca/academic-advisors/

**Student Advocacy**

Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns.  
http://umanitoba.ca/student/advocacy/  
520 University Centre  
204 474 7423  
student_advocacy@umanitoba.ca
The Undergraduate Dietetics program is accredited by the Partnership for Dietetic Education and Practice (PDEP). The program is designed to meet the Integrated Competencies for Dietetic Education and Practice (ICDEP). Following are the foundational knowledge areas that this course is designed to meet towards the ICDEP.

Highest level achieved: 1= demonstrate broad knowledge; 2= demonstrate comprehension; 3 = analyze, interpret and apply knowledge

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Foundational Knowledge</th>
<th>Cognitive Complexity Level</th>
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</thead>
<tbody>
<tr>
<td>Human Nutrition across the Lifespan</td>
<td>Ingestion, digestion, absorption, metabolism and excretion of nutrients</td>
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</tr>
<tr>
<td></td>
<td>Biochemical utilization of nutrients and energy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nutrient and energy requirements</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Physical activity and energy balance</td>
<td>1</td>
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<tr>
<td></td>
<td>Nutrition recommendations and guidelines</td>
<td>1</td>
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<tr>
<td></td>
<td>Effect of deficiencies and toxicities of nutrients</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Food sources of nutrients and dietary supplements</td>
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</tr>
<tr>
<td></td>
<td>Role of nutrients and other food components in health</td>
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<tr>
<td></td>
<td>Dietary practices</td>
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<tr>
<td>Microbiology</td>
<td>Microbes in food production including prebiotics and probiotics</td>
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<tr>
<td></td>
<td>Microbiome in human health</td>
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<tr>
<td>Nutrition Assessment</td>
<td>Food and nutrient intake of individuals and populations</td>
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<tr>
<td></td>
<td>Environmental and individual factors affecting food intake</td>
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<tr>
<td>Nutrition Care Process and Medical Nutrition Therapy</td>
<td>Etiology and pathophysiology of nutrition-related diseases</td>
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<tr>
<td></td>
<td>Nutrition-related disease management strategies</td>
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