Life and Physical Sciences
Texas A&M University
Core Curriculum Cover Sheet
Initial Request for a course to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): NFSC
2. Course prefix and number: NUTR 222
3. Texas Common Course Number: Click here to enter text.
4. Complete course title: Nutrition for Health and Health Care
5. Semester credit hours: 3
6. This request is for consideration in the following Foundational Component Area:
   - Communication
   - Mathematics
   - Life and Physical Sciences
   - Language, Philosophy and Culture
   - Creative Arts
   - American History
   - Government/Political Science
   - Social and Behavioral Sciences
7. This course should also be considered for International and Cultural Diversity (ICD) designation:
   - Yes
   - No
8. How frequently will the class be offered? Fall, Spring, Summer
9. Number of class sections per semester: One to three
10. Number of students per semester: 100+
11. Historic annual enrollment for the last three years: Sp 12 - 48, Sum 12 - 7, Fa 12 - 57

This completed form must be attached to a course syllabus that sufficiently and specifically details the appropriate core objectives through multiple lectures, outside activities, assignments, etc. Representative from department submitting request should be in attendance when considered by the Core Curriculum Council.

12. Submitted by:

   Course Instructor

   Date: 6/24/13

   Approvals:

   Department Head

   Date: 6/25/2013

   College Dean/Designee

   Date: 6/25/13

For additional information regarding core curriculum, visit the Texas Higher Education Coordinating Board website at www.thecb.state.tx.us/corecurriculum2014

See form instructions for submission/approval process.
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

Foundational Component Area: Life and Physical Sciences

In the box below, describe how this course meets the Foundational Component Area description for Life and Physical Sciences. Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

The proposed course must contain all elements of the Foundational Component Area. How does the proposed course specifically address the Foundational Component Area definition above?

The learning outcomes and teaching strategies used in Nutrition for Health and Healthcare, NUTR 222, fully meet the expectations for the Life and Physical Sciences foundational component area. The primary focus of this course is to describe the fundamental principles of nutrition and the role the diet plays in disease prevention and treatment. Basic understanding of impaired physiology that leads to diagnosis of disease is presented. Students then learn how specific dietary components such as nutrients influence the systems, which ultimately results in either enhanced or suppressed risk of chronic disease development. In addition, how the scientific method is used to develop correlations between dietary choices and disease incidence are also discussed. Finally, students learn how modifications to lifestyle choices related to food selections have a significant impact on health status. This is an online course that meets the core objectives through instructional techniques and individual assignments.

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Core Objectives

Describe how the proposed course develops the required core objectives below by indicating how each learning objective will be addressed, what specific strategies will be used for each objective and how student learning on each objective will be evaluated.

The proposed course is required to contain each element of the Core Objective.

Critical Thinking (to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information):

Critical thinking is a key component of this course. Much of the lecture content will focus on examples of epidemiological and experimental observations that have lead to the scientifically grounded correlations between an individual’s diet and health status. In addition, questions will be posed in lectures in the latter half of the course that challenge the students to apply what we have been learning in the earlier examples to scientific questions relevant to that day's lecture. The primary place that critical thinking will be assessed is in case study assignments. For these assignments students must take knowledge learned in the course and analyze a hypothetical situation regarding the health status of an individual(s). Typically these assignments result in the student needing to synthesize information from multiple sources and sections of the course in order to come up with novel answers to questions asked.

Communication (to include effective development, interpretation and expression of ideas through written, oral and visual communication):

Within the case study assignments described above a student’s ability to effectively communicate their interpretations of the problems and descriptions of correct answers to the questions will be routinely assessed in both peer- and instructor-evaluation formats. For the first case study, students will work in groups and students will be
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required to communicate ideas in written format via the chat function in eLearning a specific grading rubric is
used by team members to evaluate other students in their group while a separate rubric is used by the
instructor to assess overall communication skills. For the second case study, students will complete the
assignment individually and will submit their response to the questions in the form of a short oral
presentation. This will be conducted in a live video conference via Skype. If enrollment in the course is such
that this becomes impractical, students will submit their responses via recorded video. A video recorded
lecture will provide instruction on how to effectively communicate complex scientific information to a general
audience. The assignments will be graded using rubrics for content and oral communication and feedback
provided by the instructor. In addition, students are encouraged to participate in online discussions that go
on throughout the course and are incentivized to do so by offering bonus points on tests. These activities are
not graded assignments because we have found that open communication between students results in an
intriguing flow of ideas. However, the instructor will provide routine feedback to students as to how they
may most effectively communicate their ideas to garner support for their point of view. Finally, the videos
and slide sets used for lectures in this course are intended to teach students how appropriate visual aids and
graphics can dramatically improve the effectiveness of communicating complex scientific ideas to multiple
types of audiences.

Empirical and Quantitative Skills (to include the manipulation and analysis of numerical data or observable facts
resulting in informed conclusions):

As stated above, much of the basis for what we know about the influence of diet on chronic disease is based on
epidemiological and experimental findings. In the course, specific observational facts are presented and
appropriate numerical data provided to support these claims. Students are then required to utilize these
findings to draw conclusions to answer examination questions. These quantitative skills are also routine
assessed in the case study assignments depending on the hypothetical situation proposed. However,
intentional instruction is provided as to how to quantitatively interpret these types of data and all exams
include test questions related to evaluating a student’s competency in this area.

Teamwork (to include the ability to consider different points of view and to work effectively with others to support a
shared purpose or goal):

As previously stated, the first case study assignment is a group project in which three to four students work together.
The ability of students to express their opinions and views and to accept those of others is central to this
assignment. The nature of the hypothetical situations presented in these assignments is that while they are
based on scientific fact related to human physiology, they also very often have a sociological/psychological
component that results in different points of view that must be resolved between students prior to
completing the assignment. For example, we often challenge students to use scientific findings to come up
with specific recommendations for complex problems such as the growing prevalence of childhood obesity.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the
future course recertification process.
Nutrition for Health and Health Care
NUTR 222
Department of Nutrition and Food Science
Course Syllabus- Fall 2013

Instructor:  
Dr. Clinton Allred  
Office: 214B Cater Mattil  
Phone: 979-862-7767

Credits:  3  
Office Hours: by appointment

All e-mail communication should go through the e-Learning website.

Pre-requisites: None

Class Materials: Recorded lectures will be made available in a timely manner, usually two per week and will remain available the remainder of the semester. Lectures will be posted by 10:00 am Monday morning each week. In addition, copies of the slides from each lecture will be available in two different file formats so students can print them and take notes. All materials for each lecture will be provided in individual folders on the eLearning website.

Announcements: Please check the eLearning website frequently (i.e. daily) for important class announcements.


Course Content: Analysis of nutrition with emphasis on providing a basic understanding of nutrition and its role in disease prevention and treatment.

Course Objectives and Outcomes:
Upon completion of the course students will be able to
1. Describe the basic chemistry and biological functions of macro- and micro-nutrients in the body.
2. Summarize the digestion and absorption of these nutrients.
3. Identify nutritional and dietary factors that influence growth, development, maintenance of health, and development of chronic disease.
4. Evaluate dietary intake, nutritional needs, and overall health of individuals
5. Understand the role that individual health care providers (e.g. nurses, registered dieticians, physicians, and health educators) play in clinical nutritional therapy.

Evaluation:  

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments (2 case studies 25 pts each)</td>
<td>50</td>
</tr>
<tr>
<td>Quizzes (best 5 of 6 given x 10 pts) covering most recent lecture material</td>
<td>50</td>
</tr>
<tr>
<td>Tests (4x 100 pts)</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td>500</td>
</tr>
</tbody>
</table>

[A=≥89.5%; B=89.4-79.5%; C=79.4-69.5%; D=69.4-59.5%; F=≤59.4% Total Points]
Readings: It is suggested that students get a copy of the text book and read the associated chapters at the same time as we are covering the materials in lectures. A reading list that coincides with each lecture is provided at the end of this syllabus.

Quizzes and Exams: All quizzes and tests will be of a multiple choice format. On the dates listed in the course timeline the appropriate quiz will be posted. Students will sign in to take the quiz and will be given a set amount of time (approximately 8 min) to complete the examination. Six quizzes will be given and the five best scores will be counted. Tests will be given on the dates listed at 7:00 pm in room 123 in the Kleberg Building, or otherwise coordinated with the instructor and student. Each quiz will be worth a total of 10 points and the tests will be worth 100 each. Each quiz/test will be weighted in the grading scale as described under the evaluation section of this syllabus.

Exam Make-Up Policy: Make-up tests will only be given for university excused absences. In this case, it is the student's responsibility to arrange a date and time to make up the missed test with the instructor. Please reference Student Rule 7 regarding attendance and make-up policies. See: http://student-rules.tamu.edu/rule07.

Assignments: The primary outside of lecture assignments will be case studies. For case studies, materials from class will be utilize to explain a underlying health concern for an individual in a hypothetical situation and typically what modifications to their lifestyle including diet can be made to improve/prevent the health problem. The first of these two assignments will be a group project. Each student will be assigned to a group of three to four people. It is anticipated that students will communicate with each other via the chat function on the eLearning website or by some other means that allows for equal exchange of idea and documentation of the oral communications. After completing the case study each student will evaluate the other team members and accuracy of answers and written and oral communication during the project will be assessed.

Participation and Bonus Points: It is expected that students will be viewing the online lectures and taking notes in a timely manner throughout the class. Success in the class will depend on it as many of the questions on tests will come from material that I verbally provide in the lectures as opposed to the slides themselves. In addition, prior to each test, during one of the lectures, I will introduce a discussion topic. Then I will post a “starter comment” to a new discussion board topic on the classes’ eLearning webpage. If you enter a topic relevant statement in response to my comment or that of another student, then you will receive bonus points on the upcoming test. Topics will be chosen to induce debate and multiple comments per student are encouraged. However, comments need to be respectful and limited to the topic at hand. Inappropriate comments will result in no points for the offending student.
Academic Dishonesty: Texas A&M University students are responsible for authenticating all work to an instructor. The inability to authenticate one’s work, should the instructor request it, is grounds to initiate an academic dishonesty case.

Academic dishonesty includes, but is not exclusive to the following acts.

1. Cheating:
   Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise.

2. Fabrication:
   Making up data or results, and recording or reporting (submitting) them.

3. Multiple Submissions:
   Submitting substantial portions of the same work (including oral reports) for credit more than once without authorization from the instructor of the class.

4. Plagiarism:
   The appropriation of another person’s ideas, processes, results, or words without giving appropriate credit.

5. Complicity:
   Intentionally or knowingly helping, or attempting to help, another commit an act of academic dishonesty.

Additional information may be obtained at http://aggiehonor.tamu.edu

Students with disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cairn Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.
## Nutrition 222
### Fall 2013
### Tentative Course Outline

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>What’s Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 26th</td>
<td>Course introduction video and lecture 1</td>
<td>Lecture 1 &amp; 2</td>
</tr>
<tr>
<td>September 2nd</td>
<td>Lecture 2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Day of Week</th>
<th>Activity</th>
<th>What’s Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 11th</td>
<td>Wednesday</td>
<td>(Quiz 1)</td>
<td>Lecture 1 &amp; 2</td>
</tr>
<tr>
<td>September 18th</td>
<td>Wednesday</td>
<td>(Quiz 2)</td>
<td>Lecture 3 &amp; 4</td>
</tr>
<tr>
<td>September 24th</td>
<td>Tuesday</td>
<td>TEST I</td>
<td>Lecture 1 - 6</td>
</tr>
<tr>
<td>October 2nd</td>
<td>Wednesday</td>
<td>(Quiz 3)</td>
<td>Lecture 7 &amp; 8</td>
</tr>
<tr>
<td>October 9th</td>
<td>Wednesday</td>
<td>(Quiz 4)</td>
<td>Lecture 9 &amp; 10</td>
</tr>
<tr>
<td>October 15th</td>
<td>Tuesday</td>
<td>TEST II</td>
<td>Lecture 7 - 11</td>
</tr>
<tr>
<td>October 23rd</td>
<td>Wednesday</td>
<td>(Quiz 5)</td>
<td>Lecture 12 &amp; 13</td>
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<tr>
<td>October 31st</td>
<td>Thursday</td>
<td>(Case Study #1 Due)</td>
<td>Lecture 12 - 16</td>
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<tr>
<td>November 5th</td>
<td>Thursday</td>
<td>TEST III</td>
<td>Lecture 17 &amp; 18</td>
</tr>
<tr>
<td>November 13th</td>
<td>Wednesday</td>
<td>(Quiz 6)</td>
<td></td>
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<tr>
<td>November 22nd</td>
<td>Friday</td>
<td>(Case Study #2 Due)</td>
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<tr>
<td>December 3rd</td>
<td>Tuesday</td>
<td>TEST IV</td>
<td>Lecture 17 - 21</td>
</tr>
</tbody>
</table>

### Lecture #

- Lecture 1: Overview of nutrition
- Lecture 2: Nutrition in health care
- Lecture 3: Carbohydrates
- Lecture 4: Health effects of sugars, starches and fibers
- Lecture 5: Lipids
- Lecture 6: Health effects of fats
- Lecture 7: Proteins and amino acids
- Lecture 8: Health effects of protein
- Lecture 9: Energy balance and body composition
- Lecture 10: Weight management: over and underweight
- Lecture 11: Vitamins
- Lecture 12: Water and Minerals
- Lecture 13: Digestion and absorption.
- Lecture 14: Enteral and parenteral nutrition support
- Lecture 15: Nutrition and upper gastrointestinal disorders
- Lecture 16: Nutrition and lower gastrointestinal disorders
- Lecture 17: Nutrition and liver diseases
- Lecture 18: Nutrition in metabolic and respiratory stress
- Lecture 19: Nutrition and diabetes mellitus
- Lecture 20: Nutrition and disorders of the heart and blood vessels
- Lecture 21: Nutrition and cancer and HIV Infection
SUGGESTED READING

The text for this course is *Nutrition for Health and Health Care, 4th Edition* and the suggested portions of the book to be read to accompany topics covered in class are listed below.

**Textbook Readings:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>CHAPTER</th>
<th>PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture 1 Overview of Nutrition</td>
<td>1</td>
<td>1-32</td>
</tr>
<tr>
<td>Lecture 2 Nutrition in Health Care</td>
<td>1; 13</td>
<td>33-36; 381-405</td>
</tr>
<tr>
<td>Lecture 3 Carbohydrates</td>
<td>3</td>
<td>63-76</td>
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<tr>
<td>Lecture 4 Health Effects of Sugars, Starches, and Fibers</td>
<td>3</td>
<td>77-90</td>
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<tr>
<td>Lecture 5 Lipids</td>
<td>4</td>
<td>91-98</td>
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<tr>
<td>Lecture 6 Health effects of fats</td>
<td>4</td>
<td>98-118</td>
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<tr>
<td>Lecture 7 Proteins and amino acids</td>
<td>5</td>
<td>119-126</td>
</tr>
<tr>
<td>Lecture 8 Health effects of protein</td>
<td>5</td>
<td>126-140</td>
</tr>
<tr>
<td>Lecture 9 Energy balance and body composition</td>
<td>6</td>
<td>141-166</td>
</tr>
<tr>
<td>Lecture 10 Weight management: over and underweight</td>
<td>7</td>
<td>167-199</td>
</tr>
<tr>
<td>Lecture 11 Vitamins</td>
<td>8</td>
<td>200-236</td>
</tr>
<tr>
<td>Lecture 12 Water and Minerals</td>
<td>9</td>
<td>237-270</td>
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<tr>
<td>Lecture 13 Digestion and absorption</td>
<td>2</td>
<td>37-62</td>
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<tr>
<td>Lecture 14 Enteral and parenteral nutrition support</td>
<td>15</td>
<td>435-467</td>
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<tr>
<td>Lecture 15 Nutrition and upper gastrointestinal disorders</td>
<td>17</td>
<td>488-512</td>
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<tr>
<td>Lecture 16 Nutrition and lower gastrointestinal disorders</td>
<td>18</td>
<td>513-543</td>
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<tr>
<td>Lecture 17 Nutrition and liver diseases</td>
<td>19</td>
<td>544-561</td>
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<tr>
<td>Lecture 18 Nutrition in metabolic and respiratory stress</td>
<td>16</td>
<td>468-487</td>
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<tr>
<td>Lecture 19 Nutrition and diabetes mellitus</td>
<td>20</td>
<td>562-590</td>
</tr>
<tr>
<td>Lecture 20 Nutrition and disorders of the heart and blood vessels</td>
<td>21</td>
<td>591-620</td>
</tr>
<tr>
<td>Lecture 21 Nutrition and cancer and HIV infection</td>
<td>23</td>
<td>406-434; 648-672</td>
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