Tufts University, Friedman School of Nutrition Science and Policy

NUTR 211 - Theories of Behavior Change
and Their Application in
Nutrition and Public Health Interventions

FALL 2019

Class Meetings: Monday 9 AM – 12 PM Jaharis 118

Instructors:
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Teaching Assistant:
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Office hours by appointment

Semester Hour Units: 3.0

Prerequisites: Graduate standing or instructor consent.

Course Description and Goals:
Welcome to this class exploring theories of behavior change. This course will be conducted in a workshop format rather than a lecture format, because theories are best learned by discussion and experience. We will generally be covering one theory per class session. The theories we will be covering are some of the most widely used in public health. You will be required to read about the theory and write a brief paper before each class. Class sessions will generally include a discussion of the readings and your thoughts about the theory as it applies to a particular research or clinical question. In that context, we will explore some of the strengths and limitations of each theory. We will also engage in activities, either as small groups or as a class, that are related to the theory. Examples of these activities include creating public service announcements or other messaging based on the theory or role-playing one-on-one counseling sessions using the theory’s tenets. The second to last class will include a discussion of the ethics of behavior change, and the final class will consist of student presentations based on a short paper describing your application of a theory or theories to a research project, program intervention, or clinical case, and how these theories might inform the design of your project.
The course itself is designed so that students preparing for work involving the study of and motivations for food intake and physical activity will be better able to compete for research grants, counsel clients, and design more effective program interventions. In the short-term, we hope what you learn contributes to your dissertation, a grant proposal, or to your getting a job. In the fields of nutrition, food intake and physical activity behavior, any attempts to design interventions aimed at changing individuals’ behavior need to be based on theory. Without such justification, any changes in behavior of individuals or populations will be difficult to explain, and therefore will not be easily generalized to other individuals and populations. In fact, in the research community, most granting agencies will not fund studies unless they are theory-driven. To design sound program interventions and behavioral research, students need to discover what behavior theories are available, what aspects of behavior each theory attempts to explain, and how to apply theory to inform their research and intervention designs. In understanding these theories, you will be well-served whether you enter the fields of academia, clinical dietetics, public relations or public health.

Course Objectives:
By the end of the course, students will be able to:

- Describe the fundamental features of the major theories related to health behavior change;
- Have a basic understanding of the issues around construct measurement, including reliability and validation;
- Understand how to apply health-related behavior theory to the student’s own research, clinical cases, or evaluation-based program intervention of interest;
- Challenge each theory and describe its strengths and limitations in relation to particular research and clinical contexts;
- Be able to consider the ethical implications of using theory to change human behavior;
- Continually question, in work and in general life, what drives people to do what they do.


The course website, on Canvas (https://canvas.tufts.edu) lists all other course materials.

Academic Conduct:
Each student is responsible for upholding the highest standards of academic integrity, as specified in the Friedman School’s Policies and Procedures manual (http://nutrition.tufts.edu/student/documents) and Tufts University policies (http://students.tufts.edu/student-affairs/student-life-policies/academic-integrity-policy). It is the responsibility of each student to understand and comply with these standards, as violations will be sanctioned by penalties ranging from failure on an assignment and the course to dismissal from the school.

Classroom Conduct:
Participation Policy
A major part of your learning will take place within the classroom, and this is why class attendance is a significant part of your grade. You can still get full credit for up to two missed
classes if you schedule a tutorial session with one of the TAs. If you think it is likely that you will have to miss more than two class sessions, you would be much better off taking the course at another time.

Time extensions, make-up work, and a grade of Incomplete will only be given under the most extreme circumstances. Requests for these items must be made in advance, in writing, to the Academic Dean for Education and must have prior approval, in writing, of the academic advisor and the instructor.

**Assessment and Grading:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>11 weekly memos and responses to comments on them</td>
<td>50%</td>
</tr>
<tr>
<td>Participation in discussions – thoughtful comments on other memos, follow up to continue dialogue</td>
<td>35%</td>
</tr>
<tr>
<td>Final 1-2-page paper and presentation</td>
<td>15%</td>
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</tbody>
</table>

**Class memos**
I believe that learning is best undertaken as a continuous dialogue, not as a one-way flow of information. To begin that dialogue, you will be required to write a short reflection paper, or memo, that helps you explore how the ideas covered in the readings influence your thinking about your own specific research project, program intervention, or clinical situation. (You do not need to have a behavior or situation ready for the first class; we will discuss this further then). For Week 2 through Week 12, you will submit the memo by the Saturday prior to class at 5 PM. Memos may be submitted any time prior to this deadline. The reflection paper can be short– it should not be more than one page. It should be informal but thoughtful. These will be the primary writing assignments you will have for the entire course; there will be no lengthy papers and no exam. However, because of that, these weekly writings will be very important. Besides beginning the dialogue, they may also serve as a starting point for sections of a dissertation or a grant proposal.

**Grading criteria:**

<table>
<thead>
<tr>
<th>Components</th>
<th>Expected Level of Competence (“check-plus”)</th>
<th>Moving Towards Expected Level of Competence (“check”)</th>
<th>Below Expected Level of Competence (“check-minus”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely submission of assignment</td>
<td>Complete memo on time each week.</td>
<td>Memo is submitted late, but within 24 hours of the due date/time.</td>
<td>Memo is submitted more than 24 hours from due date/time. (If not submitted at all, receives a “0”).</td>
</tr>
<tr>
<td>Style guidelines</td>
<td>Writing is clear and succinct. Demonstrates care in writing, which may be informal, but thoughtful.</td>
<td>Writing lacks clarity in some places. Flow of ideas could use some improvement.</td>
<td>Writing lacks clarity throughout. Flow of ideas is rough. Memo is not well organized.</td>
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</tbody>
</table>
NUTR211 Theories of Behavior Change and their Application in Nutrition and Public Health Interventions

Class attendance and participation
The class will be in a workshop format, with an emphasis on discussion and experiential learning activities. Because of this, a significant portion of your grade will be based on class attendance and participation.

Why is there so much emphasis on discussion and participation in this course?
- The discussion and activities are designed to help you gain a better understanding of the theories – we want you to come away with a living, breathing appreciation for them.
- You all engage in health behaviors (or sometimes don’t!), and have all experienced the joys and frustrations of others’ behavioral decisions, either professionally and/or with family and friends. Therefore you are all experts on behavior, and have a tremendous amount to learn from each other. Within the class there will be both commonalities and diverse perspectives – these will enrich your learning and understanding of behavioral theory. In interacting with others, you will learn to identify and confront your own assumptions.
- Many of the professional situations that you will encounter in your future work will not offer easy solutions. The class will afford you practice in exploring ambiguity and complexity in a “safe” situation, as you discuss your hypothetical professional situations.
- It helps you further develop your communications skills.

This may be worrying for some of you. However I want to stress how important it is to have your voice (and all voices) in the discussion. It doesn’t matter if you don’t have much professional experience, because you bring a lifetime of experience. It doesn’t matter if you are not entirely facile with English, because the insights you bring about these theories and culture is critical, it is gold. If you are an introvert and need to take time to think through your response, you can and should take it. Each of you has something critical to offer in our collective learning. The goal of learning behavioral theory is for you to become change agents in public health, whether you are working at the individual, group, or population level. I know the difference you will make in part because alumni come back and talk about their work and the differences they have made. So my goal is for you to have your voice, learn what you most need to learn, and learn in a way...
that will change and challenge how you think. That will not happen if I am a mere depositor of knowledge.

Grading criteria for attendance and participation:
- Arrived on-time to best of ability
- Attended all classes, barring exceptional unforeseen circumstances
- Contributed to discussion at least once per class, and/or actively participated in small groups
- Listened actively to others
- If disagreed, did so respectfully
- Did not dominate the discussion
- Asked all genuine questions, even if they seemed simple or obvious

Final Paper and Presentation
For the last day of the class, a final memo (1-2 pages, no more) is due, describing the theory or theories that you are considering applying to your research project, program intervention, or clinical case, and how these theories might inform the design of your project or case (complete with citations and references). This is due at 5 PM on the Sunday before the final class (so Sunday 8 December at 5 PM). In addition, in the last class each of you will spend 3-5 minutes summarizing the memo for the class.

Grading criteria:
- Background: Provided appropriate background to the behavioral issue, including some (brief) statistics to contextualize it
- Rationale: Provided a clear and compelling rationale for choice of theory or theories, and was able to effectively defend choice
- Plan: Provided examples of specific and appropriate strategies based on theories chosen, and was able to synthesize what was learned over the semester into an integrated plan
- Formally written with appropriate use of references

Instruction for Submission of Assignments:
Please see the Course Schedule below and the course website for a list of assignments and due dates. Late memos will be penalized per the grading rubric above. Students who are unable to complete a memo on time should notify the instructor by email prior to the deadline. Extensions will be granted only for exceptional circumstances.

Diversity Statements:

Instruction Team
We believe that the diversity of student experiences and perspectives is essential to the deepening of knowledge in this course. We consider it part of our responsibility as instructors to address the learning needs of all of the students in this course. We will present materials that are respectful of diversity: race, color, ethnicity, gender, age, disability, religious beliefs, political preference, sexual orientation, gender identity, socioeconomic status, citizenship, language, or national origin among other personal characteristics.
Assignments are due weekly. If this will present a conflict with your religious observances at any point, please let us know as soon as possible so that we can work together to make arrangements.

We welcome any suggestions that you have about other ways to include the value of diversity in NUTR 211.

Dr. Folta
Diversity, inclusion, and equity are values that I deeply hold. In my role as co-chair of the Friedman School’s Committee on Social Justice, Inclusion, and Diversity, I have heard feedback from students about upsetting experiences in the classroom. Hearing these always makes me realize how difficult it is to live up to these ideals, even when one is philosophically on board. I want to assure students that I am philosophically on board, but I am also human and come with my own set of experiences, beliefs, and prejudices. I work hard to challenge these within myself, but like any human being I am a work in progress, and it is often only through being challenged from the outside that meaningful change can happen within. I strongly adhere to the "growth mindset" and hope that all of us, myself included, will take opportunities to learn from our mistakes. It is my hope that unsettling comments that may be insensitive to differences and lived experiences will be openly addressed in my classroom, without labelling, which takes an absolute, "fixed" stance. I hope that everyone in the classroom, myself most notably included given my leadership position, will be open to learning and change through honest dialogue and deep respect for the experiences of others.

Accommodation of Disabilities:
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.

Tufts WebEx:
Friedman’s on-campus courses may be offered by Tufts WebEx (https://it.tufts.edu/webex) on days when the Boston campus is closed due to weather or a temporary cancellation issue. Students should expect to be notified by email in the event that class is cancelled and will be provided with the WebEx link for students to use for any remote class sessions. Also, any relevant course slides or materials will be made available on Canvas.

Course & Assignment Schedule:
This schedule is subject to modification at the instructor’s discretion. Please refer to the course website for the very latest information on readings and assignments.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignments Due</th>
<th>Class Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 9, 2019</td>
<td>What is “Theory”? Why do we need it? Usefulness of Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 16, 2019</td>
<td>Health Belief Model</td>
<td>Memo #1 DUE by Saturday 9/14/19 at 5pm EST</td>
<td></td>
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<tr>
<td>September 23, 2019</td>
<td>Theory of Reasoned Action/Theory of Planned Behavior</td>
<td>Memo #2 DUE by Saturday 9/21/19 at 5pm EST</td>
<td></td>
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<tr>
<td>September 30, 2019</td>
<td>Self-efficacy</td>
<td>Memo #3 DUE by Saturday 9/28/19 at 5pm EST</td>
<td></td>
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<tr>
<td>October 7, 2019</td>
<td>Trans Theoretical Model/Stages of Change</td>
<td>Memo #4 DUE by Saturday 10/5/19 at 5pm EST</td>
<td></td>
</tr>
<tr>
<td>October 15, 2019</td>
<td>Self Determination Theory and Motivational Interviewing</td>
<td>Memo #5 DUE by Saturday 10/12/19 at 5pm EST</td>
<td><em>(NOTE: Monday schedule on Tuesday – we meet on Tuesday!)</em></td>
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<tr>
<td>October 21, 2019</td>
<td>Social Cognitive Theory</td>
<td>Memo #6 DUE by Saturday 10/19/19 at 5pm EST</td>
<td>Midterm evaluations are also due</td>
</tr>
<tr>
<td>October 28, 2019</td>
<td>Social Support/Social Networks, Diffusion of Innovations</td>
<td>Memo #7 DUE by Saturday 10/26/19 at 5pm EST</td>
<td></td>
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<tr>
<td>November 4, 2019</td>
<td>Dual-Process Models</td>
<td>Memo #8 DUE by Saturday 11/2/19 at 5pm EST</td>
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<tr>
<td>November 11, 2019</td>
<td>NO CLASS – Veterans Day</td>
<td></td>
<td></td>
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<tr>
<td>November 18, 2019</td>
<td>Behavioral Economics</td>
<td>Memo #9 DUE by Saturday 11/16/19 at 5pm EST</td>
<td>Guest Lecturer: Sean Cash</td>
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<tr>
<td>November 25, 2019</td>
<td>Eco-Social Models</td>
<td>Memo #10 DUE by Saturday 11/23/19 at 5pm EST</td>
<td>Guest Lecturer: Linda Hudson</td>
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<tr>
<td>December 2, 2019</td>
<td>Ethics of Behavior Change</td>
<td>Memo #11 DUE by Saturday 11/30/19 at 5pm EST</td>
<td></td>
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<tr>
<td>December 9, 2019</td>
<td>Student Presentations</td>
<td>Final paper DUE by Sunday 12/8/19 at 5pm EST</td>
<td>Last Class</td>
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</tbody>
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Weekly Readings and Learning Objectives

Week 1: What is “Theory”? Why do we need it?
September 9, 2019

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

- Understand the concept of a behavioral theory and how theory can inform research and practice
- Understand what a construct is

Required Readings:


Week 2: Health Belief Model  
September 16, 2019

Learning Objectives: Upon completion of this class, students will be able to:
- Explain the concepts of perceived severity, perceived susceptibility, barriers, benefits
- Give examples of cues to action
- Discuss the strengths and weaknesses of the HBM
- Understand the issues of construct measurement and validation

Required Readings:


Assignments for this week: Memo #1
Week 3: Theory of Reasoned Action/Theory of Planned Behavior
September 23, 2019

Learning Objectives:
- Understand what expectancy-value theory is
- Understand the TRA/TPB constructs and the relationships among them
- Understand how to apply TRA/TPB to clinical and research situations
- Discuss the limitations of the TRA/TPB
- Compare and contrast the TRA/TPB with the HBM

Required Reading:


Assignments for this week: Memo #2
Week 4: Self-Efficacy
September 30, 2019

Learning Objectives: Upon completion of this class, students will be able to:
- Describe different methods of increasing self-efficacy
- Distinguish self-efficacy from self esteem or self confidence
- Examine the confluence of outcome expectations and self-efficacy in predicting behavior

Required Readings:


Assignments for this week: Memo #3
Week 5: Transtheoretical Model/Stages of Change  
October 7, 2019

**Learning Objectives:** Upon completion of this class, students will be able to:
- Describe the different stages of change
- Describe the processes of change
- Describe how identifying stages can be used for intervention targeting
- Explain the non-linear nature of progression through the stages

**Required Readings:**


**Assignments for this week:** Memo #4
**Week 6: Self Determination Theory and Motivational Interviewing**
October 16, 2019 (Monday Schedule on Tuesday)

**Learning Objectives:** Upon completion of this class, students will be able to:
- Understand different levels of internalization of motivation and the influence of external rewards on behavior
- Understand the basic principles of motivational interviewing
- Describe the relationship between the SDT and MI

**Required Readings:**


**Optional Reading:**

**Assignments for this week:** Memo #5
Week 7: Social Cognitive Theory
October 21, 2019

Learning Objectives: Upon completion of this class, students will be able to:
- Understand the basics of inter-personal behavioral theory and the influence of the immediate environment on behavior
- Apply the concepts of observational learning and reciprocal determinism
- Describe the place of self-efficacy in the SCT

Required Readings:


Optional Reading:

Assignments for this week: Memo #6 and midterm evaluations
Week 8: Social Support/Social Networks, Diffusion of Innovations
October 28, 2019

Learning Objectives: Upon completion of this class, students will be able to:
- Enumerate the attributes of an innovation that make it more likely to diffuse
- Explain the mechanisms through which social support may influence individual behavior
- Introduce the role of social network characteristics in determining social support, diffusion of behaviors and norms, and social capital

Required Readings:


Assignments for this week: Memo #7
Week 9: Dual-Process Models
November 4, 2019

Learning Objectives: Upon completion of this class, students will be able to:
- Explore the role of emotions and the unconscious in determining behavior
- Discuss the strength of habit in determining behavior and the benefits and drawbacks of habit replacement

Required Readings:


Highly Recommended Reading for Nail Biters:

Assignments for this week: Memo #8

Recommended Activity:
Take an Implicit Association Test:
https://implicit.harvard.edu/implicit/demo/
Week 10: Behavioral Economics
November 18, 2019

Learning Objectives: Upon completion of this class, students will be able to:
  - Understand basic tenets of behavioral economics
  - Apply concepts within appropriate individual and group interventions
  - Compare and contrast behavioral economics principles with concepts from other theories

Guest Lecturer: Sean B. Cash, PhD

Required Readings:


Assignments for this week: Memo #9

Optional Activity:
View TED talk by Keith Chen: Could your language affect your ability to save money? (http://www.ted.com/talks/keith_chen_could_your_language_affect_your_ability_to_save_money.html)
Week 11: Eco-Social Models
November 25, 2019

Learning Objectives: Upon completion of this class, students will be able to:
• Distinguish between different levels of influence on individual behaviors
• Give examples of ways the community, political, social, and built environment can influence individual behavior
• Discuss potential methods of intervening at each of these levels to change health behavior

Guest Lecturer: Linda B. Hudson, ScD MSPH

Required Readings:


Assignments for this week: Memo #10
NUTR211 Theories of Behavior Change and their Application in Nutrition and Public Health Interventions

**Week 12: Ethics of Behavior Change**
December 2, 2019

*Learning Objectives:*
- Consider the ethical implications of behavior change in a wide range of settings

*Required Readings:*


*Optional Readings:*


*Assignments for this week:* Memo #11
Week 13: Student Presentations
December 9, 2019

Learning Objectives:
- Synthesize what has been learned and choose the most applicable behavioral theory/ies for a particular public health intervention or research question, and describe how the concepts might be applied

Required Readings:
NO READINGS REQUIRED.

Assignments for this week: Final Memo and Presentation