

Tufts University, Friedman School of Nutrition Science and Policy

NUTC280 – Nutrition and Innovation  
Fall 2020

**Class Meetings:** Online

**Instructor(s):** Barbara Lyle, PhD  
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Mobile 847.769.6106 (Central time zone)

**Office hours:** By Appointment: Phone or Skype meeting

**Teaching Assistant:** TBD

**Semester hour units:** 3

**Prerequisites:** Undergraduate degree

**Course Description:** Have you ever thought: “This would be a great idea for a new nutrition product or service?” but didn’t get very far in pitching the idea to others? In this class you will develop skills for identifying and advocating solutions to important consumer needs through case studies, team discussions, and real-life assignments. You’ll gain experience cultivating an innovator’s mindset in order to effectively understand real consumer needs, identify, improve and prioritize solutions, and take your idea pitching skills to a new level. What you learn in this course applies directly to developing products/services in industry, but many concepts can also be applied in public and community health.

**Course Objectives:** During the course of the semester students will gain experience identifying and clarifying consumer needs and translating a consumer need into a product idea; learn innovation tools and approaches used to improve health through nutrition products/services by creating their own idea pitch; and develop business savvy in working as a team by advocating, influencing, and communicating concisely and effectively.

**Texts or Materials:**

*The Little Black Book of Innovation: How it Works/How to do It.* Scott D. Anthony, 2011

*Switch: How to Change Things when Change is Hard.* Chip Heath & Dan Heath, 2010. [Selected pages. One copy of the book is online at Tufts if you want to download pages or read online]

*Disciplined Entrepreneurship: 24 Steps to a Successful Startup / Edition 1.* William Aulet. 2013. [Selected pages. Multiple copies available online at Tufts]

*The Fearless Fish Out of Water: How to Succeed When You're the Only One Like You.* Robin Fisher Roffer. [3 online viewers at a time at Tufts or purchase your own copy]

**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:**

To be successful in this class, you will need to review materials and seek additional perspectives beyond those presented to you. Importantly, weekly discussions with your classmates are a key component of the class and depend on your original contribution of ideas as well as the support you provide to classmates. It is expected that you will learn from seeing how others in class approach the same problem in a very different manner.

The intent of substantial class discussion is to emulate virtual teams in an industry setting in which success depends on the ability to work through others rather than delivering independent results. To effectively advocate nutrition perspectives in industry, you need to be a problem solver – not the problem to be solved on a team.

Constructive criticism and helpful suggestions to ideas posted by your classmates will be rewarded in grading as compared to discussion board postings with little to no substance (which do not count toward a grade).

Creative communications vehicles are encouraged, although concise straightforward text documents are the norm in most professional settings. The most important factor is that the key point you are making is communicated in a concise, clear, and compelling manner.

Students will engage on a weekly basis with classmates and it is expected they will learn from each other as if they were on a virtual team in an industry setting. However, if you need to discuss an issue related to class logistics or content, email your instructor. If you do not receive a response within 48 hours, please email a second time or leave a phone message, in case there is a communications issue.

### **Assessment and Grading:**

Introduction Letter to Instructor (5% of Grade)

Success Factor Assignment (10% of Grade)

Advocacy Assignment (10% of Grade)

Problem-Solution Idea Log (10% of grade)

Virtual Ideation Session (5% of Grade)

Discussion Board (35% of Grade)

Final Project: Idea Pitch (20% of Grade)

Final Letter to Instructor (5% of Grade)

**Assignments and Submission Instructions:**

Assignments and discussion boards are described in the syllabus. Assignments and discussion board postings received after their posted deadline will not be accepted or graded unless the extension was approved in advance. Students who are unable to complete an assignment or discussion posting on time should request an extension from the instructor by email, text message or phone call prior to the deadline (prefer at least 72 hours), with a brief explanation for why the extension is necessary. **Do not assume the deadline will be extended...it will depend on the assignment and only for circumstances beyond the student's control.** Time management is a critical capability in industry and is a basic expectation in this course. Do not wait until last minute to complete assignments, participate on the discussion board, or complete projects.

**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.

**Course Schedule:** This schedule is subject to modification at the instructor's discretion.

<u>Week #</u>	<u>Topic &amp; Lecturer</u> (Weekly lectures by Barbara Lyle)	<u>Assignments and Discussion Postings</u>
<b>#1 Industry Landscape</b>	<b>Who are the major players</b> (consumer goods, ingredient manufacturers, commodity groups, services providers).  <b>Nutrition roles in industry</b>  <b>New product development process</b> – illustrating nutrition roles.	<b>Letter to Your Instructor</b>  <b>Discussion Board</b>
<b>#2 Learn from Success Stories</b>	<b>Nutrition Product &amp; Services Success Stories</b>  Case Studies	<b>Success Factors Case Study</b>

<b>#3 Role of Advocacy</b>	<p><b>Advocacy Role of Nutrition on Cross-Functional Teams.</b> Key functions with a focus on product teams. <b>(Topic choice must be pre-approved)</b></p> <p><b>Preparing for Meetings with the Intent of Influencing.</b></p> <p><b>Investing in Relationships-</b></p>	<p><b>Advocacy Assignment</b></p> <p><b>Discussion Board</b></p>
<b>#4 Introduction to Innovation</b>	<p><b>Describe Innovation</b></p> <p><b>Innovation Stories</b></p>	<p><b>Problem – Solution Idea Log (Initiate)</b></p> <p><b>Discussion Board</b></p>
<b>#5 What is the Problem</b>	<p><b>Problem Identification</b></p>	<p><b>Problem – Solution Idea Log (Continue)</b></p> <p><b>Discussion Board</b></p>
<b>#6 Lots of Diverse Ideas</b>	<p><b>Ideation with Diverse teams</b></p> <p><b>Diverge to Get Lots of Ideas Then Converge</b></p> <p><b>Learn from who has already solved the problem</b></p> <p><b>Prioritize and Select Top Ideas to Move Ahead</b></p>	<p><b>Virtual Ideation Session – daily through the week</b></p> <p><b>Problem – Solution Idea Log (Cont’d)</b></p> <p><b>Discussion Board</b></p>
<b>#7 Figure Out What Works and What to Improve</b>	<p><b>Prototyping</b></p> <p><b>Mini- Experiment</b></p> <p><b>Targeting</b></p> <p><b>Watch-Outs</b></p>	<p><b>Problem – Solution Idea Log (Continue)</b></p> <p><b>Discussion Board</b></p>
<b>#8 Make it Better</b>	<p><b>Revise/Experiment</b></p> <p><b>Role of Technology and Open Innovation</b></p> <p><b>Intellectual Property</b></p>	<p><b>Problem – Solution Idea Log (Continue)</b></p>

	<b>Successful adoption.</b>	<b>Discussion Board</b>
<b>#9 Efficacy – Part 1</b>	<b>Efficacy for Impact</b> <b>Nutrition Claims</b> <b>Roles for Developing and Substantiating Claims</b>	<b>Problem – Solution Idea Log</b> (complete) <b>Discussion Board</b>
<b>#10 Efficacy – Part 2</b>	<b>Dealing with Ambiguity and Managing Risk When Existing Evidence is not Straightforward</b>  Authority Experts Efficacy Plan	<b>Discussion Board</b>
<b>#11 Differentiate to Win</b>	<b>Establish Superiority</b>  SWOT analysis  Superior	<b>Discussion Board</b>
<b>#12 Pulling Together Your Pitch</b>	<b>The final project will pitch a nutrition product/service idea.</b> <b>What: Breakdown the components of the Idea Pitch.</b>  - Problem to Solve (Job to be Done) & What Success Looks Like - Consumer Benefit Message - Pitch to the Stakeholder - Do First - Fail Fast Plan - Close	<b>Discussion Board</b>
<b>#13 The One and Only You</b>	<b>The real you</b> <b>SMART goals.</b>	<b>Final letter to instructor</b>  <b>Discussion Board</b>
<b>#14 Final week</b>	<b>Idea Pitch</b>  Final project pitch due	<b>Final Project Idea Pitch</b> (Submit)

## **Course Topics, Learning Objectives and Assignments**

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

### **Week 1: Industry Landscape**

Students will become aware of various roles that nutrition professionals undertake in the food and nutrition industry.

#### **Learning objectives:**

Upon completion of this week, students will be able to:

- 1) List industry sectors involved in food and nutrition.
- 2) Describe various roles that nutrition professionals undertake in the food industry.
- 3) Explain key stages of new product development in the food industry.

#### **Required Reading:**

Selected online materials

#### **Preparation for Class:**

Review syllabus.

View materials presented in the Course Overview and Week 1.

#### **Assignments:**

**Write Letter to Your Instructor** 500 word limit

**Discussion Board:** Share insights on the industry landscape and new product development.

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### **Week 2: Success Stories**

Students will learn how to compare products or services to identify key success factors.

#### **Learning objectives:**

Upon completion of this week, students will be able to:

- 1) Determine success factors for products in the nutrition sector.
- 2) Distinguish between new products/services with a high probability of success compared to low potential.

#### **Required Reading:**

Readings from selected online materials

#### **Preparation for Class:**

View materials presented in the online module.

**Assignments:**

**Success Factors Case Study** – Compare a successful food/food-related product to a product for which claims appear to be stronger than actual benefits to identify critical success factors.

**Discussion Board:** Post your Success Factor Case Study on the discussion board and work as a team to agree on factors most important for food/food product or service related innovations to succeed.

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**Week 3: Role of Advocacy**

Students will learn how health professionals have an advocacy responsibility in industry as part of cross-functional teams with diverse and often competing priorities (e.g., low cost ingredients, conflict between real consumer needs and perceived desires).

**Learning objectives:**

Upon completion of this week, students will be able to:

- 1) Defend a recommendation that is not understood and possibly at odds with goals of a team.
- 2) Demonstrate skills to influence a team with diverse perspectives and multiple competing goals.

**Required Reading:**

Readings from selected online materials

**Preparation for Class:**

View materials presented in the online module.

**Assignments:**

**Advocacy Assignment** – Convince a cross-functional team to decide for a more expensive but more effective option to fortify a product OR alternative topic if PREAPPROVED by the TA or instructor.

**Discussion Board:** Post your Success Factor Case Study on the discussion board and work as a team to agree on factors most important for food/food product or service related innovations to succeed.

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#### **Week 4: Introduction to Innovation**

Students will appreciate what makes innovation special compared to good ideas and begin to practice identifying problems to solve, which is a critical component in developing an innovators mindset to approach opportunities

#### **Learning objectives:**

Upon completion of this week, students will be able to:

- 1) Distinguish innovation from creativity and ideas.
- 2) Analyze and summarize characteristics of successful innovations and innovators.

#### **Required Reading:**

Assigned reading from *The Little Black Book of Innovation*

On-line reading.

#### **Preparation for Class:**

View materials presented in the online module.

#### **Assignments:**

**Problem – Solution Idea Log** This log will be continued through week 8.

**Discussion Board:** Summarize an innovation story and distinguish features of the innovation or the innovator. Then respond to Innovation Stories submitted by classmates and come to agreement as a class on the factors that appeared to be most important based on these case studies.

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#### **Week 5: What is the Problem**

Students will learn how to identify underlying problems, become familiar with tools to aid this process and then concisely communicate them.

#### **Learning objectives:**

Upon completion of this week, students will be able to:

- 1) Identify and analyze “real” consumer problems to solve.

## 2) Formulate concise Consumer Problem Statements

### **Required Reading:**

Assigned reading from *The Little Black Book of Innovation*

### **Preparation for Class:**

View materials presented in the online module.

### **Assignments:**

**Problem – Solution Idea Log** - Continued

**Problem Statement.** Write a first draft problem statement.

**Discussion Board:** Describe a mini-experiment to test and improve on an idea from your Problem – Solution Idea log. Then respond to classmates posted mini-experiments offering suggestions to improve on their experiments and ideas.

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## **Week 6: Lots of Diverse Ideas**

Students will learn how to utilize a diversity of perspectives and ideas as the means to generate better ideas and then strategically prioritize.

### **Learning objectives:**

Upon completion of this week, students will be able to:

- 1) Apply ideation techniques.
- 2) Collaborate with team members to improve a product idea.
- 3) Appraise ideas in order to achieve strategic prioritization.

### **Required Reading:**

Select readings from *The Little Black Book of Innovation: How it Works/How to do It*.

Select readings from *Switch: How to Change Things when Change is Hard*.

Select readings from *Disciplined Entrepreneurship: 24 Steps to a Successful Startup*

Online materials

### **Optional Materials:**

Online materials

### **Preparation for Class:**

View materials presented in the online module.

**Virtual Ideation Session:** Diverge, converge, and prioritize. Daily participation is expected this week. Grades will be based on quantity of ideas, both original ideas and those that build on ideas submitted by others.

**Discussion Board:** Post first draft problem statement and brief background on the problem to solve. Throughout the week, student will provide constructive input to help classmates improve their problem statements. Grading will focus on how well each student helped others and how well they integrated suggested changes in their own statements.

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### **Week 7: Figure Out What Works and What to Improve**

Students will learn how to build better ideas by actively seeking critical, but constructive, feedback.

#### **Learning objectives:**

Upon completion of this week, students will be able to:

- 1) Construct a test to challenge an idea, translate results, and revise ideas.
- 2) Critique work of colleagues in a constructive manner.
- 3) Integrate critical input and suggestions from a team in order to improve ideas.

#### **Required Reading:**

Assigned reading from *The Little Black Book of Innovation*

Assigned reading from *Disciplined Entrepreneurship: 24 Steps to a Successful Startup*

#### **Preparation for Class:**

View materials presented in the online module.

**Discussion Board:** Each student is to construct and then conduct one or more mini-experiments of an idea they think might work against the problem they selected to solve and describe it concisely on the discussion board as if writing an email to the team introducing the experiment goal and plans in order to get input that will be helpful in experiment design or conduct. Students will work collaboratively to provide constructive input to help classmates improve their experiments. The discussion board in week 8 will be used to discuss results and application of the mini-experiments.

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### **Week 8: Make it Better**

Students will learn how to improve solutions by considering technology sourcing, intellectual property, and adoption factors.

#### **Learning objectives:**

Upon completion of this week, students will be able to:

1. Compare types and uses of intellectual property.
2. Explain approaches to utilize technology in solving problems.
3. Apply principles of successful adoption to new product development.

#### **Required Reading:**

Select readings from *Switch: How to Change Things when Change is Hard*.

#### **Preparation for Class:**

View materials presented in the online module.

**Discussion Board:** Students will discuss results and application of the mini-experiments they planned and conducted in week 7 as they relate to solution ideas for the problem they plan to solve in their final project assignment.

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### **Week 9: Efficacy – Part 1**

Students will learn how to advocate for efficacy in product design and messaging and understand what type of evidence is used to substantiate types of messaging.

#### **Learning objectives:**

Upon completion of this week, students will be able to:

1. Compare types of nutrition messaging (content claims, structure/function, and health claims).
2. Construct action standards as they relate to nutrition efficacy (i.e., significant and meaningful).
3. Connect roles of internal and external partners in developing, substantiating, and approving nutrition benefit messages.

**Required Reading:**

Readings from selected online materials

**Preparation for Class:**

View materials presented in the online module.

**Discussion Board:** Students discuss nutrition claims

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**Week 10: Efficacy – Part 2**

Students will learn how to seek expert advice and translate into decision-making in circumstances of ambiguity in nutrition messaging.

**Learning objectives:**

Upon completion of this week, students will be able to:

1. Judge various authoritative bodies and experts in nutrition to select credible expertise when nutrition benefits are ambiguous or not clearly defined in regulations.
2. Formulate a plan to develop realistic and meaningful nutrition benefit statements.

**Required Reading:**

Readings from selected online materials

**Required Content:**

View materials presented in the online module.

**Discussion Board:** Compose and post the nutrition benefit statement for their idea pitch. Students will formulate questions about classmates proposed nutrition benefit statements, offer suggestions for improving the benefit statement, propose alternative benefit statements, and pose helpful questions to consider related to the rationale to substantiate it.

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**Week 11: Differentiate to Win**

Students will learn how to improve ideas by differentiating.

**Learning objectives:**

Upon completion of this week, students will be able to:

1. Construct a superiority statement.
2. Create and draw conclusions from a SWOT situation analysis.
3. Bring multiple criteria to bear in evaluating and improving ideas.

**Required Reading:**

Assigned reading from *Disciplined Entrepreneurship: 24 Steps to a Successful Startup*

Online materials

**Required Content:**

View materials presented in the online module.

**Discussion Board:** Post one example of an idea for a design or environmental cue that could be used either to make your idea work better or if not relevant to your idea, select another you observed that is related to improving food or nutrition choices. Students will provide constructive input on classmate's examples.

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**Week 12: Pulling Together Your Final Assignment**

Students will integrate all aspects of the course in preparing a pitch for a nutrition-related product or service solution.

**Learning objectives:**

Upon completion of this week, students will be able to:

1. Compose a compelling solution to a well-articulated problem.
2. Anticipate needs to support this product or service, including how to overcome hurdles and potential disbeliefs.
3. Explain key first steps to ensure a fail fast scenario (rather than long and slow).
4. Compose the "ask" in a concise and compelling business manner.

**Required Reading:**

Assigned readings from *The Little Black Book of Innovation: How it Works/How to do It*

Assigned readings from *Disciplined Entrepreneurship: 24 Steps to a Successful Startup / Edition 1*. William Aulet. 2013. [Selected pages. Multiple copies available online at Tufts]

Start reading *The Fearless Fish Out of Water: How to Succeed When You're the Only One Like You*

**Required Content:**

View materials presented in the online module.

**Assignment:**

**Initiate Final Project - Develop an Idea Pitch.** (Due Saturday midnight of week 14)

The final project will pitch a nutrition product/service idea developed and revised throughout the class. The pitch will include the following components and will be graded on how well the original idea was improved during the class, the content of the pitch, and the how well the pitch is communicated (i.e., concise and compelling).

- 1) **Problem to Solve (Job to be Done) & What Success Looks Like**
- 2) **Consumer Benefit Message** (Problem-solution consumer benefit statements in simple, compelling terms for use with consumers)
- 3) **Pitch to the Stakeholder**  
Proof of concept, anticipate and answer likely hurdles to overcome and disbeliefs to dispel, differentiation that makes this the better alternative to what's out there and to other obvious solutions, key assumptions and the ask (what resources are needed).
- 4) **Do First** in order to Fail Fast – Identify key risks to test and either pass through or recommend revision.
- 5) **Close**

**Discussion Board:** Post your Consumer Benefit Message on the first day of week 12. State the target audience of your product and who your stakeholders are (e.g., funding agents, product/service provider, etc). Students will discuss with classmates their initial reaction to the pitch in terms of hurdles they see that need to be addressed or disbeliefs that should be dispelled by the classmate as they prepare their overall idea pitch to stakeholders.

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**Week 13: The One and Only You**

Students will learn how to turn their personal “uniqueness” into an advantage in business.

**Learning objectives:**

Upon completion of this week, students will be able to:

1. Assess their experiences and skills to identify strengths.
2. Reframe their personal differences as strengths in a business setting.

**Required Reading:**

Complete reading *The Fearless Fish Out of Water: How to Succeed When You're the Only One Like You*.

**Required Content**

View materials presented in the online module.

**Assignment:**

**Final Letter to Instructor** Summarize from your perspective the most valuable results you gained from this class, ideas to improve the course and a personal goal to leverage your unique characteristics in your daily professional or personal life.

**Discussion Board:**

The discussion board will be open for classmates to post items they would like classmate's input on to improve their final projects. Students must post at least once to get feedback on their final project. To motivate teamwork, an incentive will be offered (e.g., **double points**) for classmates posting at least 4 postings containing helpful suggestions to classmate requests for input.

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**Week 14: Final Week****Assignment:**

**Final Project- Idea Pitch** (Submit by midnight Saturday of week 14. 50 MG size limit)