

# THE SCIENCE OF FOOD- 11:400:103

COURSE OUTLINE Fall 2017

Tuesdays & Fridays

11:30am-12:50pm

Loree 024 – Cook Campus  
Wright Lab-Busch Campus

## Faculty:

<b>Chitra Ponnusamy</b> , PhD Food Science Department, Room 315-C Office hours: After class; By appointment Phone & Voicemail: 848-932-5452 Email: <a href="mailto:cp470@scarletmail.rutgers.edu">cp470@scarletmail.rutgers.edu</a>	<b>Shiuying Ho</b> , PhD Email: <a href="mailto:syho@sebs.rutgers.edu">syho@sebs.rutgers.edu</a>
<b>Licheng Huang</b> Email: <a href="mailto:lh528@scarletmail.rutgers.edu">lh528@scarletmail.rutgers.edu</a>	
Dr. Ponnusamy or Dr. Ho will be present in Loree or Wright lab during all lecture times.	
<b>All students must mention “Science of Food Fall 2017” in the subject of their emails. Otherwise, most definitely, you will NOT receive a reply.</b>	
We are here to help you get through with this course. Make use of it!	

## COURSE DESCRIPTION FROM THE CATALOG:

“Overview of the major food components, food related diseases in the U.S., food preservation, food legislation and *current food issues*.”

## LEARNING GOALS:

At the conclusion of this course, students will be able:

1. To exhibit a basic understanding of the Biology, Chemistry and Engineering Sciences that comprise the foods we eat (NS-e)<sup>1</sup>.

<sup>1</sup> *The designation indicate which goals of the New Brunswick Core Curriculum are fulfilled by this course.*

2. To identify and critically assess ethical and societal issues in science pertaining to current and future food related controversies (NS-g).
3. To acquire skills for and tools for life-long learning.

### **SUGGESTED READING MATERIALS:**

Textbook: Essentials of Food Science, Author: Vickie Vaclavik. Any ed.

Websites: [www.foodsafety.gov](http://www.foodsafety.gov)      [www.biotechbasics.com](http://www.biotechbasics.com)  
[www.cspinet.org](http://www.cspinet.org)      [www.ift.org](http://www.ift.org)  
[www.food-irradiation.com](http://www.food-irradiation.com)      [www.consumersinternational.org](http://www.consumersinternational.org)

### **ATTENDANCE IN CLASS:**

5 random lecture days will be chosen to take attendance in class. Your being in class really would help me push your final grade over if you are on the borderline. Please note that Exam days do not really count towards class attendance.

### **EXAM POLICY: Be honest and face the exams**

Anyone caught cheating on the exams will be dealt with **harshly**. It is not that hard to do well in this class; do not risk your academic career by cheating. Cheating is a high risk, low payoff gamble.

### **EXAMS: It isn't rocket science; a little hard work can help you earn an "A"**

All students must attempt all 3 exams in order to get through the course.

NO cumulative exam. They are scheduled exams, suitable for grading using Scantron®. Exams will be given during regular class hours.

NO MAKEUP EXAMS.

You need to bring proof of absence and talk to me in person if you need an alternative date for the exam(s).

**EXAM VENUE:** All students **MUST** write all 3 exams in the site they are registered for.

All students **MUST** sign an EXAM SIGN-UP FORM IN CLASS during the 1<sup>st</sup> 3 lecture days, confirming their exam site.

Seating in your assigned classroom on exam days will be coordinated by the instructor(s) and proctors.

**GRADING: You earn your own grade.**

Each exam consists of 50 questions and total points for each exam would be 100. The final grade for the course will be an average of the 3 exams. **NO CURVE**, whatsoever.

**EXTRA CREDIT (EC): (= extra work for you & me)**

All students will be given 3 opportunities for gaining extra credits. Extra credit work must be submitted via Sakai. Timed. NO submissions after closing ☹️

Points from the 3 extra credit assignments will be added to the corresponding exam. A maximum of 20 points can be earned by a student via extra credit.

**Extra credit 1 for exam 1: 5 points maximum**

Submit on or before 9.29 (11:59 pm): Details in Sakai Lecture- 1

**Extra credit 2 for exam 2: 5 or 10 points maximum**

submit on or before 11.2 (11:59 pm): Details in Sakai Lecture - 10

**Extra credit 3 for exam 3: (9.7 at 11:59 pm; 12.1 at 11:9 pm)  
5 points maximum**

(Pre- & post- course evaluation) Details in Sakai Lecture- 1

This is a 2-part evaluation, posted in Sakai. Pre- course evaluation must be completed before lecture-2 (9.7 at 11:59 pm) and Post-course evaluation by end of lecture 25 (12.1 at 11:59 pm). Upon completion of both evaluations, extra credit points will be added to Exam-3.

**If you do just 1 evaluation, you will NOT receive any extra credit points.**

**BONUS**

If at least ~70% students in the class complete the Instructors' Rating Survey, +2 points will be added to the lowest exam score of each student in the class.

It is an online survey and you will receive an email towards the end of the semester.

Example of a students' score with and without extra credit

Student #1	Student #2	Student #3
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(No extra Credit)	(with 3 extra credits)	(with 3 extra credits)
Exam 1: 74/100= 74%	Exam 1: 74/100=74%	Exam 1: 74/100=74%
	EC 1: 5/5	EC 1: 5/5
	Exam 1: 74+5= 79%	Exam 1: 74+5= 79%
Exam 2: 83/100= 83%	Exam 2: 83/100= 83%	Exam 2: 83/100= 83%
	EC 2: 5/5	EC 2: 10/10
	Exam 2: 83+ 5= 88%= 83%	Exam 2: 83+ 10= 93%
	Exam 3: 78/100= 78%	Exam 3: 78/100= 78%
Exam 3: 78/100= 78%	Exam 3: 78+5= 83%	Exam 3: 78+5= 83%
	Ex Cr 3: 5/5	Ex Cr 3: 5/5
Final Score: 74+83+78= 240/300	Final score: 79+ 88+88= 250/300	Final Score: 79+ 93+83= 255/300
<b>78% "C"</b>	<b>83% "B"</b>	<b>85% "B+"</b>

**GRADING GRID:**

"A"= 90 and above	"B+"= 85-89
"B"= 80 - 84	"C+"= 75-79
"C"= 70 - 74	"D": 60-69
"F" = below 60% <u>and/or</u> if you do not attempt or more exam(s)	

1

**IN- CLASS POLICIES: Follow them.....makes class run smooth.....every time.**

- It is a large lecture class, synchronously taught in 2 campuses; please talk to myself or Dr. Ho before or after class.
- Make of use of my office hours: For appointment, TALK TO ME or you may go to <https://foodscience.youcanbook.me> and choose a time slot for appointment
- Listening and participating in class keeps you well; otherwise, you run into the risk of my open embarrassment
- Arrive on time and leave when class ends; otherwise, again, you run into the risk of my open embarrassment
- No use of cell phones, no IM, no Facebook, no whatsapp, skype, telegram (and none of their e-predecessor and e-successor), no movies or music permitted
- No distractions in classroom.....talking, music, head phones unplugging by themselves or by your neighbor, gum popping, snoring (list seems endless.....)
- Remember, you are a celebrity student..... all your activities are monitored via satellite... 😊😊😊

**ALL THE VERY BEST TO ALL OF YOU!!!!**

**GOOD LUCK!!!!**

**CLASS SCHEDULE- FALL 2017\*\***

LEC #	DAY/DATE	TITLE
<b>INTRODUCTION</b>		
1	Tu 9.5	OVERVIEW OF COURSE- SYLLABUS Extra Credit 1 & 3 Instructions
2	F 9.8	MEET & GREET FOODS
<b>FOOD CHEMISTRY</b>		
3	Tu 9.12	WATER
4	F 9.15	CARBOHYDRATES
5	Tu 9.19	FATS
6	F 9.22	PROTEINS
7	Tu 9.26	VITAMINS & MINERALS
8	F 9.29	SUMMING UP ON THE INTAKE
<b>9</b>	<b>Tu 10.3</b>	<b>EXAM-1</b>
<b>FOOD BIOLOGY</b>		
10	F 10.6	CALORIES & NUTRIENT INTAKE; Extra Credit 2 Instructions
11	Tu 10.10	UNDER- & OVER- INTAKE: FOODS PERSPECTIVE
12	F 10.13	DIGESTION OF FOODS
13	Tu 10.17	MICROORGANISMS IN FOODS- I
14	F 10.20	MICROORGANISMS IN FOODS- II- Guest
15	Tu 10.24	"SLIPPAGE"/ MOVIE
16	F 10.27	SENSORY EVALUATION OF FOODS
17	Tu 10.31	FOOD INGREDIENTS & MORE- I
18	F 11.3	FOOD INGREDIENTS & MORE- II
<b>19</b>	<b>Tu 11.7</b>	<b>EXAM- 2</b>
<b>FOOD ENGINEERING</b>		
20	F 11.10	MASS PRODUCTION OF FOODS
21	Tu 11.21	INTRODUCTION TO FOOD ENGINEERING- Guest
22	F 11.17	HEAT PROCESSING OF FOODS
23	W 11.22	COLD PROCESSING OF FOODS
24	Tu 11.28	NON-THERMAL PROCESSING & DEHYDRATION- Guest
25	F 12.1	FOOD BIOTECHNOLOGY- Guest
<b>SOME OTHER ASPECTS OF FOODS</b>		
26	Tu 12.5	FOOD LAWS & BIOTERRORISM
27	F 12.8	FOOD PACKAGING & LABELING
<b>28</b>	<b>Tu 12.12</b>	<b>EXAM-3</b>

**\*\* THIS IS A TENTATIVE CLASS SCHEDULE.**

LECTURE TOPICS AND DATES MAY CHANGE; EXAM DATES ARE NOT  
LIKELY TO CHANGE.

## STUDENT WELLNESS SERVICES

**Just In Case Web App** <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

### **Counseling, ADAP & Psychiatric Services (CAPS)**

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 /  
[www.rhscaps.rutgers.edu/](http://www.rhscaps.rutgers.edu/)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

### **Violence Prevention & Victim Assistance (VPVA)**

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 /  
[www.vpva.rutgers.edu/](http://www.vpva.rutgers.edu/)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932- 1181.

### **Disability Services**

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your

campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

**Scarlet Listeners**

(732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.