Food Microbiology
11:400:423
Spring Semester, TOTAL 3 CREDITS
Lectures - 3 credits, 80 min session, twice a week, total of 28 sessions
Prerequisites: General Microbiology

Objective:
This course is designed to give students an understanding of the role of microorganisms in food processing and preservation; relation of microorganisms to food spoilage, foodborne illness and intoxication, general food quality, and role of microorganisms in health promotion.

Students completing this course should be able to:
1) understand the factors and predict microorganisms, which can cause food spoilage;
2) understand the causes of foodborne diseases and their etiology;
3) evaluate the measures required to control undesired microorganisms in food;
4) understand the role of microorganisms in food processing, preservation and safety, and the possible health benefits from the consumption of health-promoting microorganisms or products derived from their fermentation.

Student Evaluation:
Quizzes will be given to provide students feedback on their course performance and to prepare them for the exams. Quizzes will be arranged in various formats and will cover material presented in previous lectures and reading, assigned for the day of the quiz. In-class group presentations will be assigned on topics related to food microbiology but different from the in-class discussed topics. Each group will have to select its own topic. The course’s instructor may assist with the topic’s selection. In-class/take-home assignments will be given to evaluate each group’s presentation. Two exams in various formats will test students’ knowledge and their ability to independently make decisions and solve problems using the knowledge obtained during the course of study. Students may request re-evaluation of exam or quiz scores within 2 weeks of receiving a grade. No grades will be changed after two weeks. Students are required to follow the ACADEMIC INTEGRITY RULES:

ACADEMIC INTEGRITY (EXTRACT)
All exams, quizzes, and short written assignments should represent student’s exclusive effort. Books and reference material may be consulted for the exam, but students may not discuss exam questions, work together on the exam, or receive any other assistance. Do not copy material from books or Internet directly to answer a question.

Any work of the student should be original effort of a scholar, based on reading, digestion, and synthesis of primary literature. Failure to indicate direct quotes, inadequately citing others work, and presentation of another’s work as one’s own are all varying degrees of plagiarism, the theft of intellectual property. Plagiarism and other ethical breeches are not tolerated at Rutgers University. Students should consult and be familiar with the full policy on academic integrity published in the Graduate School Handbook. Should the student have any doubts about understanding of the distinctions therein, it is strongly advised to see the course co-ordinator for explanations and clarification. Academic dishonesty will be severely penalized, with punishment up to and including dismissal from Rutgers University.
Expectations:
*Students are not forced but expected* to attend all lectures and *to prepare for lectures ahead of time* by consulting food microbiology textbooks and the lectures materials. They are also *expected to actively participate in class discussions and to ask questions* in class, to complete and turn in assignments on time and to notify in advance about their possible absence. The lectures and activities in this course are designed to help students learn the basic principles of food microbiology, to solve problems, and to report clearly and concisely their knowledge in both an oral and written format.

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<th>Final course grade will be based on:</th>
<th>Approximate grading cut-offs:</th>
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<tr>
<td>Mid-term Exam</td>
<td>90-100 A outstanding</td>
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<td>End of Term Exam</td>
<td>85-89 B+ excellent in most areas</td>
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<td>Quizzes and assignments</td>
<td>80-84 B above average</td>
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<td>Students are given a chance to improve their grade by submitting an extra-credit essay (2-3 pages on a topic not discussed in the class). This is entirely voluntarily.</td>
<td>75-79 C+ above satisfactory knowledge</td>
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<td>70-74 C satisfactory factual knowledge</td>
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<td>60-69 D poor but passable</td>
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<td>&lt; 60 F unsatisfactory</td>
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**Textbook and references:**
Students are expected to learn a significant amount of information on their own by reading. There is no required text for this course. Any textbooks on food microbiology may be used as references. The suggested textbooks are:

**Communication:**
Students are encouraged to ask questions and to express any concerns that they may have. Should they like to talk with the instructor outside of class, an appointment can be set up. Students can talk to the professor before or after class, send an email, or stop by the professors' offices. If the student stops by without an appointment, s/he should understand that the professor may have other commitments and may not be able to talk at that time.

Faculty:
Dr. Michael L. Chikindas* 848-932-5405

*Course coordinator; please address administrative issues to him.
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