

Jordan University of Science and Technology
Faculty of Agriculture
Department of Nutrition and Food Technology
Semester 2007

| Course Information | |
|---------------------------|----------------------------|
| Course Title | Advanced Food Microbiology |
| Course Number | NF 754 |
| Instructor | Dr. Tareq Osaili |
| Office Location | C4L3 |
| Office Phone | 22277 |
| Office Hours | ----- |
| E-mail | tosaili@just.edu.jo |
| Teaching Assistant | ----- |
| Course Description | |
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| Text Book | |
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| Title | Modern Food Microbiology |
| Author(s) | Jay, J. M., Loessner, M.J. and Golden, D.A. |
| Publisher | Springer Science and Business Media, Inc., NY, USA. |
| Year | 2005 |
| Edition | 7th |

| Assessment Policy | | |
|--------------------------|--------------------------|---------------|
| Assessment Type | Expected Due Date | Weight |
| First Exam | | 20% |
| Second Exam | | 20% |
| Final Exam | | 40% |
| Assignments | | 10% |
| Presentation | | 10% |

| Course Objectives | Weights |
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| This course is designed for graduate students in Nutrition and Food Technology to gain an understanding how spoilage microbes grow in food, how the food affects their growth, and how to control spoilage and foodborne organisms in food. | |

| Teaching & Learning Methods |
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| PowerPoint Data Show |

Useful Resources

- Doyle, M., L. Beuchat and T. Montville. 2001. Food Microbiology- Fundamentals and Frontiers. 2nd ed. ASM Press, Washington, D.C. USA. ISBN 1-55581-208-2
- Research articles from scientific journals

Course Content

| Week | Topics | Chapter in Text (handouts) |
|------|---|----------------------------|
| | Introduction to the course | |
| | Factors influence microorganisms growth | |
| | Spoilage Organisms | |
| | Introduction to foodborne pathogens | |
| | Microbial stresses and biofilm formation | |
| | Food preservation with chemicals and radiation | |
| | High temperature and low temperature preservation | |
| | Other food preservation methods | |
| | The HACCP system and Risk Assessment | |

Additional Notes

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| Attendance | Attendance is required and expected at each scheduled lecture. Absences will be excused for illness, official university sponsored trips and religious holidays. Please notify the instructor ahead of an expected absence when possible or as soon thereafter as possible |
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