

FLORIDA ATLANTIC UNIVERSITY™

Undergraduate Programs—COURSE CHANGE REQUEST¹

UUPC APPROVAL _____
 UFS APPROVAL _____
 SCNS SUBMITTAL _____
 CONFIRMED _____
 BANNER POSTED _____
 CATALOG _____

DEPARTMENT: BIOLOGICAL SCIENCE	COLLEGE: COLLEGE OF SCIENCE
COURSE PREFIX AND NUMBER: MCB 3020L	CURRENT COURSE TITLE: GENERAL MICROBIOLOGY LAB
CHANGE(S) ARE TO BE EFFECTIVE (LIST TERM): FALL 2013	_____ TERMINATE COURSE (LIST FINAL ACTIVE TERM):

<p>CHANGE TITLE TO:</p> <p>CHANGE PREFIX FROM: TO:</p> <p>CHANGE COURSE NO. FROM: TO:</p> <p>CHANGE CREDITS² FROM: TO:</p> <p>CHANGE GRADING FROM: TO:</p> <p>CHANGE WAC/GORDON RULE STATUS³ ADD* _____ REMOVE _____</p> <p>CHANGE GENERAL EDUCATION REQUIREMENTS⁴ ADD* _____ REMOVE _____</p> <p><small>*WAC and General Education criteria must be clearly indicated in attached syllabus. For WAC Guidelines: www.fau.edu/WAC. Please attach General Education Course Approval Request: www.fau.edu/deanugstudies/GeneralEdCourseApprovalRequests.php</small></p>	<p>CHANGE DESCRIPTION TO:</p> <p>CHANGE PREREQUISITES/MINIMUM GRADES TO*:</p> <p><u>EXISTING</u></p> <p><u>NEW PRE/REQ.</u></p> <p><u>MINIMUM PASSING GRADE C-</u></p> <p>EXISTING COREQUISITES: MCB 3020</p> <p>CHANGE COREQUISITES TO*: NONE</p> <p>CHANGE REGISTRATION CONTROLS TO:</p> <p><small>*Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).</small></p>
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Attach syllabus for ANY changes to current course information.

Should the requested change(s) cause this course to overlap any other FAU courses, please list them here.	Please consult and list departments that might be affected by the change(s) and attach comments. ⁵
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Faculty contact, email and complete phone number:
 David Binninger; binninge@fau.edu; 561.297-3323

<p>Approved by:</p> <p>Department Chair: <u><i>David Binninger</i></u></p> <p>College Curriculum Chair: <u><i>J.C. Wynn</i></u></p> <p>College Dean: <u><i>J. B. Johnson</i></u></p> <p>UUPC Chair: <u><i>J.C. Wynn</i></u></p> <p>Undergraduate Studies Dean: <u><i>Elizabeth P. Smith</i></u></p> <p>UFS President: _____</p> <p>Provost: _____</p>	<p>Date:</p> <p>Feb. 27, 2013</p> <p><u>3/21/13</u></p> <p><u>3/20/13</u></p> <p><u>3/22/13</u></p> <p><u>3/27/13</u></p>	<ol style="list-style-type: none"> 1. Syllabus must be attached; syllabus checklist recommended; see guidelines and checklist: www.fau.edu/academic/registrar/UUPCinfo 2. Review Provost Memorandum: Definition of a Credit Hour www.fau.edu/provost/files/Definition_Credit_Hour_Memo_2012.pdf 3. WAC approval (attach if necessary) 4. Gen. Ed. approval (attach if necessary) 5. Consent from affected departments (attach if necessary)
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Email this form and syllabus to mianning@fau.edu seven business days before the University Undergraduate Programs Committee meeting so that materials may be viewed on the UUPC website prior to the meeting.

General Microbiology Laboratory Syllabus

MCB 3020L-001 (19164) 1 credit

Fall Semester 2013

Lab Coordinator: Dr. Daniela Scheurle
Biological Sciences/Building 1, Room 120
dscheurl@fau.edu
(561) 297 2904

TA: Lindsay Bruce **Email:** lbruce5@fau.edu
Office Hours: Monday 10am-12pm SC 223

Class time and room number: Wednesday 12pm-2:50pm SC 107.

Course Description: The application of fundamental techniques in the isolation, cultivation and identification of microorganisms.

Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, CHM 2045, CHM 2045L, CHM 2046, CHM 2046L, Minimum Grade of C-

Co-requisite: None

Objectives: MCB 3020L is a one credit upper division laboratory course on General Microbiology. This course introduces to and acquaints the student with basic principles and laboratory techniques, used in a Microbiology lab as well as in a Biotechnology lab – the use of aseptic technique, the growth of microorganisms, as well as isolation and detection of plasmid and bacterial DNA - It is the intent of the course to provide an opportunity to learn the skills necessary to understand and get a feel for the basic ideas embodied within the various facts that they will encounter, and how those ideas are related. This should allow them to establish a firm foundation for advanced Microbiology and Biotechnology courses.

Required Text: General Microbiology Laboratory Manual MCB 3020L, Scheurle, ISBN: 0-558-84082-5

Required Supplies: You must provide your own lab coat to be worn whenever you are in the laboratory. Lab coats can be purchased at any local uniform store for approximately \$30.00. You must have your lab coat by the 2nd week of lab. Goggles are not necessary.

General Safety Rules

- **No Eating or Drinking in the Lab!**
- Your lab coat must be worn while you are in the teaching laboratory.
- You must wear closed shoes! No open toes or open heels!
- Long hair must be neatly tied back.
- If you are injured—no matter how minor—report it to the teaching assistant. If necessary, you will be taken to receive medical attention.

Blackboard: The TAs and the lab coordinator will send out announcements and post additional material using Blackboard.

Determination of your Grade:

Your final course grade will be based on two multiple-choice exams, a lab practical exam, and participation points.

- Two in class multiple choice written exams – 20% each for a total of 40%
- Lab Practical Exam -20%
- Participation (Quizzes, Lab Participation, Lab Review Questions, Lab Reports, and CPR) - 40%

Written Exams

The two multiple-choice exams are written by the lab coordinator. It is up to the TAs if they hand out study guides and/or will set up out of class reviews.

Make-Up Exams

Any student who is absent during their assigned lab period on which a written exam is given will be allowed to take a make-up exam only if the student has verifiable, written documentation for a reasonable excuse for missing their lab. **The make-up exams will be either essay format or multiple choice questions.**

Practical Exam

At the end of the semester there will be a practical exam which consists of 19 different stations. Each TA will give an in class review going over each station. Since there are no make-up exams for the practical exams the student who is unable to attend any of the practical exam time slots can receive an "I". Grades of Incomplete ("I") are reserved for students who are passing a course but have not completed all the required work because of exceptional circumstances. A grade of "I" will only be given under certain conditions and in accordance with the academic policies and regulations put forward in FAU's University Catalog. The student must show exceptional circumstances why requirements cannot be met. A request for an incomplete grade has to be made in writing with supporting documentation, where appropriate

Participation Grade

1.) Quizzes:

There will be a quiz **during the first** 10 to 15 minutes of each lab. If you are late for the lab you have whatever time is left to take the quiz! The quiz will contain questions about the previous or/and the actual lab. There will be no quiz at the days of the written exams. Each quiz is worth 10 points (**Exception:** the first quiz for the Monday labs will be worth 20 points).

2.) Lab Participation:

The major purpose of a laboratory course is to provide you with hands-on experience. The factors concerned are attendance, punctuality, participation and preparedness. Each lab is worth 10 points. The following is a list of "behaviors" which will result in point deductions.

- Being late for class
- "Disappearing" for extended periods of time
- Leaving before the lab is over
- Not cleaning up properly
- Improper waste disposal
- Wrong labeling of plates and tubes
- Non-participation (your lab partner is doing all of the work)
- Failure to follow safety rules, negligence, horseplay, and/or abuse of equipment. May result in penalties up to and including dismissal from the course with a grade of "F".

3.) Lab Review Questions:

The lab manual contains review questions at the end of each chapter. Students are required to complete the review questions upon completion of the experiment(s) and turn in the review questions at the beginning of the lab period the following week (see schedule for due dates). The review questions for each chapter are worth 10 points. **Review questions turned in late will not be accepted!**

4.) Lab Reports:

There will be a total of 4 lab reports during the semester (see schedule). Each lab report is worth 20 points. The lab report should cover...

- The main concepts of the experiment
- The result of the experiment
- A discussion of the experiment

Your TA will give you more details how to write a lab report. The reports must be turned in at the beginning of the lab period following the evaluation of the experiment. **Reports turned in late will not be accepted!**

Grading Scale

93-100	A	73-76.9	C
90-92.9	A-	66-72.9	C-
87-89.9	B+	62-65.9	D+
83-86.9	B	58-61.9	D
80-82.9	B-	55-57.9	D-
77-79.9	C+	<55	F

Cheating and Plagiarism:

Any form of copying and turning in someone else's work as your own is considered academic dishonesty. If you are caught cheating or committing plagiarism, you will be referred to the lab coordinator and the Dean of Student Services for the College of Science. For more information see the Code of Academic Integrity in the University Regulations on the FAU website.

Code of Academic Integrity Policy Statement: Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information see University regulation 4.001 at http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

Make-Up of Missed Labs

Labs can only be made up during the week in which they are scheduled. If you are going to miss or have already missed a lab you must notify the lab coordinator and /or your TA **within 24 hours** of the relevant lab. Ask the **lab coordinator** what other lab section you can attend to make up your missed lab. If you attend a make up lab without the lab coordinator's approval you will receive zero participation points for it. If you can not make up the missed lab during the week in which it is scheduled the lab coordinator will give you a **written assignment** which will cover quiz and participation points. Review questions and lab reports that were due the day you missed the lab have to be turned in to the **lab coordinator the same week**. You are allowed to miss two labs for which justifiable and verifiable reason(s) can be documented in writing. If you miss more than two labs you receive zero points for each additional missed lab. So be aware that you might lower your final grade by one full letter if you do not make up the two allowed missed labs or if you miss two more labs.

Religious Accommodations:

Students who wish to be excused from coursework, class activities or examinations must notify the instructor in advance of their intention to participate in religious observation and request an excused absence

Accommodations for Students with Disabilities:

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton - SU 133 (561-297-3880), in Davie - MOD I (954-236-1222), in Jupiter - SR 117 (561-799-8585), or at the Treasure Coast - CO 128 (772-873-3305), and follow all OSD procedures.

MCB 3020L-001 General Microbiology

Spring 2013 Laboratory Exercise Schedule

Week of	Topics	Assignments Due
January 9 Week 1	Introduction. Discussion Chapters 1 – 3, 6	Reading of chap. 1-3 and 6
January 16 Week 2	Chapter 4 – Preparation of LB Agar Plates Chapter 5 – Aseptic Technique – Part I	Rev.questions 1-3, 6
January 23 Week 3	Chapter 5 – Aseptic Technique - Part II Chapter 7 – Bacterial Growth – Part I Chapter 9 – Cultural Characteristics of Microorganisms (only theory) Chapter 10 – Isolation of Bacterial Species from a Mixed Culture – Part I	Rev.questions 4 and 5
January 30 Week 4	Chapter 7 – Bacterial Growth – Part II Chapter 10 – Isolation of Bacterial Species from a Mixed Culture – Part II Chapter 8 – Using the Microscope Chapter 11 – Simple Staining Chapter 14 – IMViC Test – Part I (only theory)	Rev. questions 7,9,10
February 6 Week 5	Chapter 12 – Gram Stain Chapter 13 – Carbohydrate Fermentation – Part I Chapter 14 – IMViC Test – Part II	Report 7 Rev. questions 8, 11
February 13 Week 6	Written Lab Exam I [Chapters 1 - 14] Chapter 13 – Carbohydrate Fermentation – Part II Chapter 14 – IMViC Test – Part III Chapter 15 – Litmus Milk Reactions – Part I	Report 10-12 (optional) Rev. questions 12
February 20 Week7	Chapter 15 – Litmus Milk Reactions – Part II Chapter 16 – Sterilization Chapter 17 – Effects of Electromagnetic Radiation on Bacteria – Part I Chapter 18 – Antiseptics, Disinfectants, and Antibiotics – Part I	Report 10-12 Rev. questions 13, 14
February 27 Week 8	Chapter 17 – Effects of Electromagnetic Radiation on Bacteria - Part II Chapter 18 – Antiseptics, Disinfectants, and Antibiotics -Part II Chapter 19- Bacterial Transformation A – Part I [Note: Drop Deadline is March 1st.]	Rev. questions 15-18
March 4-10	SPRING BREAK!!!!	
March 13 Week 9	Chapter 19- Bacterial Transformation A – Part II Chapter 20 – Bacterial Transformation B – Part I Chapter 21 – Enumeration of Virus – Part I	Rev. questions 19 Report 17, 18
March 20 Week 10	Chapter 20 – Bacterial Transformation B - Part II Chapter 21 – Enumeration of Virus - Part II Chapter 22 – DNA Fingerprinting – Part I Chapter 27 – Skin Microbiota – Part I	Rev. questions 21
March 27 Week 11	Chapter 22 – DNA Fingerprinting - Part II Chapter 27 – Skin Microbiota – Part II + III Chapter 26 - Bioinformatics	Reading of chap. 23 Rev. questions 20, 22
April 3 Week 12	Chapter 27 – Skin Microbiota – Part IV Chapter 24 PCR of hair follicle DNA– Part I Chapter 25 – Enzyme Immunoassays	Rev. questions 27

April 10 Week 13	Chapter 24 PCR of hair follicle DNA– Part II Written Lab Exam II [Chapters 13 - 27]	Rev. questions 24, 25 Report 27
April 17 Week 14	Practical Lab Exam	None
April 24 Week 15	Discussion of Written and Practical Lab Exam	None