

## Contact Information:

**Professor:** Dr. Clifton Franklund

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## Catalog Course Description:

Introduction to the microbial world with an emphasis on human microbial disease mechanism and the basis of a protective immune response. The laboratory provides practical experience with fundamental techniques and instrumentation. Designed for students in allied health associate degree programs. This course meets General Education requirements: Scientific Understanding, Lab.

## Prerequisites:

None.

## Course Meeting Time and Location:

Lectures will be held on Mondays and Wednesdays from 4:00 to 4:50 pm in SCI 126. Laboratory sessions meet at various times in SCI 215 – check your schedule. **You** are responsible for all announcements, assignments, and handouts given both in class and online – even if you are late or absent.

## Required Materials:

**Textbook:** *Microbiology: A Systems Approach*, Third Edition by Marjorie K. Cowan and Kathleen P. Talaro. McGraw-Hill Companies.

*You may use older editions of the textbook if you wish; the page numbers for assignments will not correspond correctly, but you should be able to figure that out without too much trouble.*

**Lab manual:** We will be using online lab resources, handouts, and a printed laboratory course pack for this semester.

**Other supplies:** Cloth lab coat, marking pen (sharpie), CPS Pulse (you must have the gray Pulse clicker – the blue and white ones will not work for our assignments) student remote clicker. Optional materials include a scientific calculator, a set of colored pencils and a wax pencil for the laboratory. These are available in the bookstore and are highly recommended.

### Dr. Franklund's office hours policy:

I will maintain regular office hours as shown to the left (first come, first served – you are encouraged to make appointments but walk-ins are welcome and will be accommodated whenever possible). I have posted my schedule outside of my office door. All of my free time is available to you as office hours. Simply find the day that works for you and sign up for a meeting (in 15-minute increments).

If you score below 60% on any lecture exam, I **require** you to schedule attend at least one office hours session to go over your results. You will need to bring your copy of the exam, your lecture notes, and the feedback that you receive from me by email to this session. I would like to help you do well in this course. That may involve trying some new learning strategies.

If you have a question during class, don't wait for office hours to address it. Feel free to speak right up. Odds are, if you have a question some of your classmates will as well.

**General Education Learning Outcomes:**

This course may be used to fulfill the general education requirement for **Scientific Understanding (with a lab)**. As such, a student succeeding in this course should be able to do the following:

- 1) Have a working knowledge of the fundamental principles of a natural science discipline;
- 2) Be able to use appropriate scientific reasoning skills to interpret and analyze content in the natural sciences;
- 3) Have a basic understanding of the scientific method, scientific concepts, and the evolution of scientific ideas;
- 4) Have a more positive attitude toward science and an increased confidence in their ability to understand science

**Course Learning Objectives:**

Each of the general education outcomes listed above will be addressed and assessed during the span of this semester. Some will be dealt with in lecture, others in laboratory, and yet others in both. I have several specific learning objectives for students in this course and they are listed below. By the conclusion of this course, you should be able to:

- A. Microbial Diversity** - Give examples of and compare and contrast different types of microbes (including viruses, bacteria, fungi, and protozoa) as well as identify various structures and define their functions.  
*Assessed via the homework, laboratory quizzes, lecture exam questions, the laboratory practical, and the comprehensive final exam.*
- B. Microbial Physiology** - Explain the various metabolic strategies employed by microbes providing specific examples of how metabolism is linked to environmental cycling of elements and pathogenesis. Describe basic concepts involving how genetic information flows in microbial cells, detailing the importance of mutation, recombination, and lateral genetic exchange in virulence.  
*Assessed via the homework, laboratory quizzes, lecture exam questions, the laboratory practical, and the comprehensive final exam.*
- C. Antimicrobials and Immunity** - Distinguish between chemical, physical, and biological means of controlling microbial growth. Decide which means would be most appropriate when given a hypothetical scenario. Summarize and diagram the interrelated systems of the host immune defenses, differentiating between the innate, humoral, and cellular defenses and identify points of interaction. Explain how inappropriate immune responses can result in host damage.  
*Assessed via the homework, laboratory quizzes, lecture exam questions, the laboratory practical, and the comprehensive final exam.*
- D. Microbial Diseases** - Identify microbial pathogens and correlate them to the diseases that they cause. Describe several different molecular strategies employed by microbial pathogens and give several specific examples of each. List the most important microbial diseases in the U.S. or worldwide.  
*Assessed via the homework, laboratory quizzes, lecture exam questions, the laboratory practical, and the comprehensive final exam.*
- E. Laboratory Techniques** - Correctly perform proper laboratory skills and display a habit of good laboratory practices that extend to your everyday life. Perform simple and differential stains on isolates and properly use compound light microscopes to visualize and describe microbial cell morphologies.

*Assessed via laboratory quizzes, the laboratory task book, the unknown project, and the laboratory practical.*

- F. Critical Thinking** - Accurately follow instructions and collect data based upon observations from laboratory exercises or clinical case studies. Plot data when appropriate and interpret any trends. Make inferences and predictions based upon the interpretations.

*Assessed via the homework, laboratory quizzes, lecture exam questions, the laboratory practical, and the comprehensive final exam.*

- G. Communication** - Demonstrate an ability to work in group settings and exchange ideas concerning course-related topics. Read, write, and speak about Microbiology with classmates and members of the community.

*Assessed via the study guides, reflective learning journal, and unknown project.*

- H. Metacognition** - Articulate preferences and dislikes (strengths and weaknesses) for learning new and complex information. Adopt new learning strategies to improve retention of information and comprehension of the course materials.

*Assessed via the study guides, reflective learning journal, post-exam bonus assignments, and class surveys.*

### **Modified Bloom's Taxonomy:**

Each of the graded course activities will correspond to one or more of our six course outcomes. In addition, these activities can be involved different levels of cognitive skill or ability. One way to classify these levels is the modified Bloom's taxonomy of Anderson and Krathwohl.

Anderson, L W, & Krathwohl D R (eds.) (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman

Our class assignments will require you to use each of their six cognitive levels. Each requires more complex and abstract thought than those preceding it. The basic aspects of these levels (and the relative importance of each) are described below. Examples of questions pertaining each level will be provided to you throughout the semester.

- 1) Identify and correctly use appropriate microbiological terms and concepts.

*This constitutes "**Remembering**" – the lowest level of the modified Blooms' cognitive outcomes. This objective will be assessed using online homework assignments, lecture exams, laboratory quizzes, the laboratory practical exam, and the comprehensive final exam. You should expect about **20%** of all course points to correspond to this outcome.*

- 2) Classify or provide examples of microbiological concepts and be able to make simple conclusions based upon those principles.

*This constitutes "**Understanding**" – also a low-level of the modified Blooms' cognitive outcomes. This objective will be assessed using online homework assignments, lecture exams, laboratory quizzes, the laboratory practical exam, and the comprehensive final exam. You should expect about **35%** of all course points to correspond to this outcome.*

- 3) Carry out correct calculations of microbiology problems and apply appropriate formulae to novel problems.

*This constitutes "**Applying**" – a mid-level of the modified Blooms' cognitive outcomes. This objective will be assessed using online homework assignments, lecture exams, laboratory quizzes, the laboratory practical exam, and the comprehensive final exam. You should expect about **15%** of all course points to correspond to this outcome.*

- 4) Organize available data, find and select relevant facts and interpret them to address specific microbiological problems or cases.

This constitutes “**Analyzing**” – a high-level of the modified Blooms’ cognitive outcomes. This objective will be assessed using online homework assignments, lecture exams, laboratory quizzes, the unknown project, the laboratory practical exam, and the comprehensive final exam. You should expect about **15%** of all course points to correspond to this outcome.

- 5) Judge the validity of scientific statements or potential courses of action and detect errors or inconsistencies in such statements.

This constitutes “**Evaluating**” – also a high-level of the modified Blooms’ cognitive outcomes. This objective will be assessed using online homework assignments, lecture exams, laboratory quizzes, the unknown project, the laboratory practical exam, and the comprehensive final exam. You should expect about **10%** of all course points to correspond to this outcome.

- 6) Construct tables or figures to illustrate data or concepts and compose reports regarding abstract concepts.

This constitutes “**Creating**” – the highest level of the modified Blooms’ cognitive outcomes. This objective will be assessed using the unknown project lab quizzes, and the learning journal. You should expect about **5%** of all course points to correspond to this outcome.

### Grade Calculation:

I use an objective point-based system to grade all work, tests and quizzes. The nature and relative point values of all assignments are explained in the following section. I have designed this course to be worth a total of 1,200 points. **Mid-term grades will be posted by March 5, 2012** so that you may assess your class standing. Final grades for the course will be assigned based upon your total earned score as indicated in this table. **These breakpoints are not negotiable.** The online homework (100% for completion) and bonus points should give you more than adequate buffer against any poor assignment performances.

Point Range	Grade	Percent
1,116 to 1,200 points	A	93-100%
1,080 to 1,115 points	A-	90-92.9%
1,044 to 1,079 points	B+	87-89.9%
996 to 1,043 points	B	83-86.9%
960 to 995 points	B-	80-82.9%
924 to 959 points	C+	77-79.9%
876 to 923 points	C	73-76.9%
840 to 875 points	C-	70-72.9%
804 to 839 points	D+	67-69.9%
756 to 803 points	D	63-66.9%
720 to 755 points	D-	60-62.9%
0 to 719 points	F	0-59.9%

### Course Assignments:

**Lecture Exams** – There will be three 120-point lecture exams (see the lecture syllabus for dates). They will be comprehensive and consist of questions in a multiple-choice format. The exam items will assess your comprehension of course materials at several different cognitive levels. They may be based upon diagrams, clinical cases, or material drawn from the textbook or assigned readings. You will submit your answers using the CPS clicker system.

- 360 points (30.0% of your final grade)

**Homework Questions** – You will be required to complete daily homework assignments prior to lecture. Your responses will be entered into the CPS clicker system using the homework mode. Sometime during the first 15 minutes of each class, your recorded responses will be electronically collected and graded. There will be no make-ups for missed assignments for any reason.

- 240 points (20.0% of your final grade)

**Laboratory Quizzes** – There will also be eleven 10-point laboratory quizzes (see the lab syllabus for dates). These will cover the prior lab’s material as well as the assigned readings for the current lab period. Questions may include matching, multiple-choice, and problem solving. Your lowest score will be dropped from the final grade calculation.

- 100 points (8.3% of your final grade)

**Unknown Report** – While working in pairs, you will be given a mixture of bacteria to isolate and identify in the laboratory. This project will act as a capstone project for our lab. More precise instructions, a grading rubric, and assignment deadlines can be found on our Blackboard site.

• *50 points (4.2% of your final grade)*

**Laboratory Task Book** – While working in the lab, you will be expected to demonstrate a mastery of several standard microbiological techniques. I will observe your performance in lab and provide feedback throughout the semester. When you have completed each task, I will sign you off in a provided task book.

• *100 points (8.3% of your final grade)*

**Study Guides** – I will provide templates of lecture exam study guides for the lecture exams this semester. You will be expected to complete these documents and use them to prepare for our course exams. On the day of an exam, you will turn in your completed document for evaluation. You will be graded on neatness, accuracy, and completeness.

• *80 points (6.7% of your final grade)*

**Reflective Learning Journal** – Over the course of the semester, you will make periodic entries into an online learning journal. You will be reflecting about your progress in the course and responding to specific prompts. More precise instructions about this assignment, specific prompts, a grading rubric, and assignment deadlines can be found on our Blackboard site.

• *50 points (4.2% of your final grade)*

**Laboratory Practical** – At the end of the semester, there will be one 100-point laboratory practical. This will consist of twenty-five timed stations covering the materials seen and worked with over the course of the semester. The penultimate lab session will be devoted to reviewing the materials for this exam.

• *100 points (8.3% of your final grade)*

**Comprehensive Exam** – There will be two comprehensive lecture exams. Each will consist of 60 two-point multiple-choice questions. You will take these exams using your CPS clicker. The lowest of your exam scores (either a lecture exam or a final exam) will be dropped from the final grade calculation.

• *120 points (10.0% of your final grade)*

**Bonus Points** – At various points during the semester, bonus assignments may be given. The nature of the assignments, their due dates, and point values will be announced during the semester.

• *Up to 50 points possible (up to an extra 4.2% added to your base score)*

**THERE WILL BE NO OTHER EXTRA-CREDIT ASSIGNMENTS AVAILABLE DURING THIS COURSE.**

### **Class Attendance, Late Assignments, and Make Up Policy:**

Students are expected to attend class regularly. I have noted a direct correlation, historically, between student attendance and class performance. However, it is ultimately up to you to show up for class. You will be responsible for all reading, discussions, and lecture materials. The lab is an essential component of this course. Therefore, anyone with **more than two (2) absences from lab will receive an 'F'** for the course.

All graded materials must be completed on time. Make up *exams* will be provided only in the case of an excused absence. You must contact me within **one week** of the missed exam and provide **written** evidence to explain your absence. If you know in advance that you will be absent for an exam, please contact me immediately. I will attempt to make arrangements to accommodate you (within reason) with no penalty. You may always turn in assignments before their due dates. If you miss a lab, you may attend a different section in order to participate in graded work. **There are no make-ups for quizzes and other reports.**

The following are instances of excused absences:

1. Hospitalization, with documentation from your physician
2. Severe illness, with documentation from your physician
3. Jury duty, with a copy of your court summons
4. Bereavement, with a letter from a family member
5. Ferris-sponsored sporting event, with a letter from your coach

The following are NOT instances of excused absences:

1. Oversleeping – get a better alarm clock
2. Work – You agreed to the class schedule when you signed up for the course
3. Appointments – see number two
4. Traveling – see number two
5. Other classes conflict – see number two
6. Jail or prison time – you have bigger problems than a missed deadline
7. Illness without documentation – you must have a physician's note
8. Forgot deadlines – they are your responsibility
9. Bad weather – if Ferris is open, our classes will meet as scheduled
10. Confusion – ask questions earlier rather than later!
11. Computer problems – there are over 100 computers available in the library alone. Don't wait until the last possible moment to start an assignment!!!

### Due Dates:

Your grade will be based upon many different assignments this semester. The following is a chronological compilation of the due dates (last acceptable date) for each assessment. Do not leave everything until the last possible minute! Technical snafus and other gremlins lurk about for just such instances. A missed deadline will result in a **zero (0)** unless you have a valid and documented excuse.

<u>Date</u>	<u>Time</u>	<u>Assignment Description</u>	<u>Value</u>
Daily	In lecture	Your homework responses will be collected	240 pts
Sept. 5/6	In lab	Lab quiz 1 given at the beginning of class	10 pts*
Sept. 12/13	In lab	Lab quiz 2 given at the beginning of class	10 pts*
Sept. 19/20	In lab	Lab quiz 3 given at the beginning of class	10 pts*
Sept. 24	4:00 pm	Study guide 1 turned in before the exam	20 pts
Sept. 24	4:00 pm	Exam 1 given in class	120 pts**
Sept. 26/27	In lab	Lab quiz 4 given at the beginning of class	10 pts*
Oct. 3/4	In lab	Lab quiz 5 given at the beginning of class	10 pts*
Oct. 10/11	In lab	Lab quiz 6 given at the beginning of class	10 pts*
Oct. 17/18	In lab	Lab quiz 7 given at the beginning of class	10 pts*
Oct. 17	4:00 pm	Study guide 2 turned in before the exam	20 pts
Oct. 17	4:00 pm	Exam 2 given in class	120 pts**
Oct. 24/25	In lab	Lab quiz 8 given at the beginning of class	10 pts*
Oct. 31/Nov. 1	In lab	Lab quiz 9 given at the beginning of class	10 pts*
Nov. 7/8	In lab	Lab quiz 10 given at the beginning of class	10 pts*
Nov. 12	4:00 pm	Study guide 3 turned in before the exam	20 pts
Nov. 12	4:00 pm	Exam 3 given in class	120 pts**
Nov. 14/15	In lab	Lab quiz 11 given at the beginning of class	10 pts*
Dec. 2	11:59 pm	The final entries in the online journal are due	50 pts
Dec. 3/4	In lab	Completed bacterial unknown report due in class	50 pts
Dec 3/4	In lab	Completed lab task books are turned in	100 pts
Dec. 5	4:00 pm	Study guide 4 turned in before the exam	20 pts
Dec. 5	4:00 pm	Comprehensive final exam 1 given in class	120 pts**

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Dec. 5/6	In lab	Lab practical given during the last lab session	100 pts
Dec. 10	4:00 pm	Comprehensive lecture 2 exam given in class	120 pts**

\* *The lowest score from the 11 lab quizzes will be dropped from the calculation of your final grade.*

\*\* *The lowest score from the 5 exams will be dropped from the calculation of your final grade.*

### **FerrisConnect:**

This semester, we will be extensively using Blackboard Learn 9.1 (branded Learn at FSU). This site will contain a variety of materials to *supplement*, but not replace, class attendance and reading. I am always interested in comments, corrections, or suggestions with regard to the electronically delivered course content! This semester, the site will contain the following:

1. A PDF copy of this syllabus.
2. Course announcements
3. Additional course materials for lecture and lab. This section includes PDF copies of the lecture slides for your note-taking convenience, lecture study guides, sentence outlines, interactive copies of the slides, practice materials in a variety of formats, and links to additional information on the internet.
4. A calendar of all course assignments and deadlines.
5. Assignment descriptions for all graded work.
6. Online communication tools for you to contact me or your classmates
7. A link to your online reflective learning journal page.
8. On-line access to your course grades.
9. An extensive glossary of terms used during the semester. I hope that you find this material to be helpful in preparing for exams and pursuing your interests. Please feel free to offer constructive criticism.

### **Cheating and Plagiarism:**

In a word - **don't**. Cheating and plagiarism are in violation of the Ferris State University administrative code (refer to your student handbook for details). Any student in violation of this code in any assignment or examination related to this course shall minimally receive a zero on the assignment and will also be subject to the options specified by the Code of Student Community Standards (these include failing the entire course outright).

### **Electronic Devices:**

Students are permitted to use PDAs, and/or tape recorders during lectures and laboratories. These devices are not allowed during quizzes and exams, however. You may use scientific calculators in some labs, but their use is not strictly required. Please be considerate of your classmates; ensure that the ringers on your cell phones and pagers are disabled when you attend class. The use of electronic devices for non-class activities during lecture or lab may result in a their complete banishment – don't abuse your resources.

### **Dropping From the Course:**

If you wish to drop a class, you must do so ***officially***, through the dean's office, in order to avoid receiving an "F" grade in the course.

### **DO NOT ASSUME THAT I WILL DROP YOU IF YOU CEASE ATTENDING CLASS!**

After you miss three labs, I will record your final grade as "F" unless you officially withdraw.

I will only *consider* giving an "I" (incomplete) grade to students that: 1) have completed all assignments for the class except the lab practical and/or final exam, and 2) have a compelling personal or medical reason for temporarily postponing the completion of those assignments.

If you need to totally withdraw from school, you must do so **officially** at Admissions and Records in CSS 101. The last day to withdraw with a W grade is November 3, 2011. In case of extenuating circumstances (e.g., a serious illness requiring you to withdraw from school), contact Birkam Health Center at 591-2614.

### **Laboratory Safety and Supplies:**

In addition to the laboratory manual, each student will be required to purchase a lab coat and marking pen. General and specific laboratory safety procedures will be explained during the first lab session and must be followed by every one participating in the course. There will be no exceptions. Each participant must read and sign the laboratory safety guideline form before she or he is allowed to begin laboratory-learning activities. Failure to observe these safety guidelines will result in expulsion from the laboratory for the day – this will be considered an unexcused absence. Only students currently enrolled in BIOL108 will be permitted in the laboratory.

### **Registering Your CPS Clicker:**

To complete this process, you will need the following: a pulse clicker (gray and white), a computer with Internet access, and an enrollment code coupon.

1. Turn on your computer.
2. Connect to the Internet using your favorite browser.
3. Go to the MyFSU website and log in. (<http://myfsu.ferris.edu/>)
4. Click on “FerrisConnect” icon at the top of the screen.
5. Click on the “Courses” icon at the top of the page.
6. Select “BIOL108: Medical Microbiology, Fall 2012” from the list of online courses.
7. If you have used a clicker before, you can enter your name and password.
8. If you are new to clickers, click on “Create a new account”.
9. When prompted, enter your Ferris email address and a security question.
10. Then provide your clicker serial number from the back of your pad (ignore any leading zeros, they are just there to confuse you)
11. Choose a user name (use the part of your Ferris email account before the “@”) and fill in your first and last names (telephone is totally optional)
12. The class code for our course is – **G69234C474**
13. You will need to enter a coupon code for your clicker. If you purchased a new textbook, a coupon may have come with it. They can also be purchased from the bookstore. If you have already set up a lifetime code, just leave that field blank. If you leave it blank and do not have a coupon code, the system will prompt you to purchase one online (\$15 for the semester or \$35 for life).
14. Click on “Enter the Class” and you should be assigned a clicker number.
15. If you are experiencing trouble in registering your clicker, please bring your clicker and your coupon to my office hours. I will help you to get set up.

### **If a pad stops responding, or responds as the incorrect pad number:**

1. Take the batteries out of the pad(s).
2. Press any answer key on the pad(s) and hold it down for approximately 10 seconds.
3. Replace the batteries and try the pad(s) again.

If you have any questions about CPSOnline, log onto [www.einstruction.com](http://www.einstruction.com), and use the **Customer Support** menu option. From the Tech Support page, go to the bottom and type in your name to enter the live Text Chat room for immediate help (or call 888-333-4988).

### **Final Note:**

I reserve the right to make needed and appropriate changes to this syllabus during the semester.





# LECTURE SCHEDULE

	Dates	Topic	Text Reference
Microbial Diversity	Mon Aug. 27	00) Introduction and Course Policies	
	Wed Aug. 29	01) The Scope and History of Microbiology	Chapter 1
	<b>Mon Sept. 3</b>	<b><i>LABOR DAY – NO CLASS</i></b>	
	Wed Sept. 5	02) The Chemistry of Biology	Chapter 2
	Mon Sept. 10	03) The Tools of Microbiology	Chapter 3
	Wed Sept. 12	04) The Prokaryotes	Chapter 4
	Mon Sept. 17	05) The Eukaryotic Microbes	Chapter 5
	Wed Sept. 19	06) The Viruses and Infectious Particles	Chapter 6
	<b>Mon Sept. 24</b>	<b>First Exam</b>	
Microbial Physiology	Wed Sept. 26	07) Bacterial Growth and Differentiation	Chapter 7
	Mon Oct. 1	08) Microbial Metabolism	Chapter 8
	Wed Oct. 4	09) Fermentation and Respiration	Chapter 8
	Mon Oct. 8	10) Microbial Genomes	Chapter 9
	Wed Oct. 10	11) Genetic Expression and Gene Regulation	Chapter 9
	Mon Oct. 15	12) Horizontal Gene Transfer and Mutagenesis	Chapter 9
	<b>Wed Oct. 17</b>	<b>Comprehensive Second Exam (20% prior material)</b>	
Microbial Control	Mon Oct. 22	13) Physical and Chemical Control of Microbes	Chapter 11
	Wed Oct. 24	14) Chemotherapeutic Agents and Drug Resistance	Chapter 12
	Mon Oct. 29	15) Host Parasite Interactions	Chapter 13
	Wed Oct. 31	16) The Innate Immune Response	Chapter 14
	Mon Nov. 5	17) The Acquired Immune Response	Chapter 15
	Wed Nov. 7	18) Vaccinations and Immune Dysfunction	Chapter 16
	<b>Mon Nov. 12</b>	<b>Comprehensive Third Exam (40% prior material)</b>	
Microbial Pathogenesis	Wed Nov. 14	19) Infections of the Body's Surfaces	Chapter 18
	Mon Nov. 19	20) Cardiovascular and Nervous System Infections	Chapters 19 & 20
	<b>Wed Nov. 21</b>	<b><i>THANKSGIVING BREAK – NO CLASS</i></b>	
	Mon Nov. 26	21) Respiratory System Infections	Chapter 21
	Wed Nov. 28	22) Digestive System Infections	Chapter 22
	Mon Dec. 3	23) Genitourinary System Infections	Chapter 23
	<b>Wed Dec. 5</b>	<b>Comprehensive Final Exam 1* (60% prior material)</b>	
	<b>Mon Dec. 10</b>	<b>Comprehensive Final Exam 2* (60% prior material)</b>	4:00 – 5:40 PM

*\* The lowest of the five exam scores will be dropped from the calculation of your final grade.*

I will allow each student to prepare and bring one 8 1/2 x 11 sheet of notes to the final exam. You prepare and print them with a computer. You may only use one side of the sheet. Your sheet **must** have your name on it and you will turn it in to me at the completion of the exam.



# LABORATORY SCHEDULE

Dates	Description
M/T Aug. 27/28	Lab Safety, Medium Preparation & Environmental Surveillance
W/R Aug. 29/30	Pure Cultures and Microscopy
M/T Sept. 3/4	<b>LABOR DAY HOLIDAY – NO LABS ON MONDAY OR TUESDAY</b>
W/R Sept. 5/6	<b>Quiz #1</b> , Environmental Surveillance Follow-Up, Simple Stain,
M/T Sept. 10/11	Gram Stain
W/R Sept. 12/13	<b>Quiz #2</b> , Acid Fast Stain and Flagella Slide Demos
M/T Sept. 17/18	Capsule and Endospore Stains
W/R Sept. 19/20	<b>Quiz #3</b> , Fungal Slide Culture and Protozoa
M/T Sept. 24/25	Aseptic Pipetting/Viable Count
W/R Sept. 26/27	<b>Quiz #4</b> , Fungal Slide Culture & Viable Count Follow-Ups
M/T Oct. 1/2	Bacteriophage Assay
W/R Oct. 3/4	<b>Quiz #5</b> , Bacteriophage Assay Follow-Up & Microbial Symbiotic Relationships,
M/T Oct. 8/9	Symbiosis Follow-Up and Anaerobes
W/R Oct. 10/11	<b>Quiz #6</b> , Water Testing, and Anaerobe Follow-up
M/T Oct. 15/16	Effects of Environmental Conditions on Microbial Growth
W/R Oct. 17/18	<b>Quiz #7</b> , Water Testing Follow-Up
M/T Oct. 22/23	Antiseptics, Disinfectants & Antibiotic Susceptibility
W/R Oct. 24/25	<b>Quiz #8</b> , Environmental Conditions Follow-Up & Genetic Transformation I
M/T Oct. 29/30	Antiseptics, Disinfectants & Antibiotic Follow-Ups & Transformation II
W/R Oct. 31/Nov. 1	<b>Quiz #9</b> , Genetic Transformation III
M/T Nov. 5/6	Exoenzymes and ID of the Enterobacteriaceae
W/R Nov. 7/8	<b>Quiz #10</b> , Exoenzymes and Enterobacteriaceae Identification Follow-Ups
M/T Nov. 12/13	Identification of Gram-Positive Cocci, <b>Begin Unknown Project</b>
W/R Nov. 14/15	<b>Quiz #11</b> , Identification of Gram-Positive Cocci Follow-Up
M/T Nov. 19/20	Review of Staining Procedures, Work on Bacterial Unknown Project
W/R Nov. 21/22	<b>THANKSGIVING BREAK – NO LABS ON WEDNESDAY OR THURSDAY</b>
M/T Nov. 26/27	Continue Work on Bacterial Unknown Project
W/R Nov. 28/29	Complete Work on Bacterial Unknowns Project
M/T Dec. 3/4	Lab Practical Review Session, <b>Turn in Bacterial Unknown Reports</b>
W/R Dec. 5/6	<b>Laboratory Practical Exam (*Lab Checkout)</b>

\*NB: All lab coats left in the laboratory after check out will be held until Friday, Dec. 14. After that, they will be donated to area schools.

**SYLLABUS ATTACHMENT**  
**COLLEGE OF ARTS AND SCIENCES – FERRIS STATE UNIVERSITY**  
**FALL 2012**

**CONSIDERED ADDING A MINOR OR MAJOR TO YOUR CURRENT PROGRAM?**

See what classes may already apply.

**For more information, stop by the Arts and Sciences Dean's Office!**

IMPORTANT DATES		
Late registration	Wed. – Fri.	Aug. 22 – 24
First day of classes	Monday	Aug. 27
Last day for Drop/Add	Thursday	Aug. 30
Labor Day (no classes)	Monday	Sept. 3
Mid-term grades due	Monday	Oct. 22
Last day for "W" grades	Thursday	Nov. 1
Thanksgiving recess begins (no classes)	Wed (noon)	Nov. 21
Thanksgiving recess ends (classes resume)	Monday	Nov. 26
Last day of classes	Friday	Dec. 7
Examination Week	Mon – Fri	Dec. 10 – 14
Commencement	Saturday	Dec. 15
Final grades due by 1:00 pm	Monday	Dec. 17
Grades available to students on MyFSU	Tuesday (after 8AM)	Dec. 18

Sessions	Dates	Last Day to Withdraw
Full Session	Aug. 30 – Dec. 7	Nov. 1
Session A	Aug. 27 – Oct. 16	Sept. 27
Session B	Oct. 17 – Dec. 7	Nov. 16
Session D	Aug. 27 – Sept. 28	Sept. 17
Session E	Oct. 1 – Nov. 1	Oct. 19
Session F	Nov. 2 – Dec. 7	Nov. 26

**DEPARTMENT OFFICES**

Biology	ASC 2004	591-2550
Humanities	JOH 119	591-3675
Languages & Literature	ASC 3080	591-3988
Mathematics	ASC 2021	591-2565
Physical Sciences	ASC 3021	591-2580
Social Sciences	ASC 2108	591-2735
Dean's Office	ASC 3052	591-3660

**WHAT YOU NEED TO KNOW**

**E-MAIL**

All registered FSU students have a Ferris Gmail account. This is the only e-mail to which all official University information about registration, financial aid, student activities, and class cancellations will be sent. Please check your account at least once a week. E-mail is our primary communication resource for students.

**CLASS ATTENDANCE IS IMPORTANT!**

Attendance usually has a high correlation with how well you do in a course. Many instructors have mandatory attendance policies by which your grade will be affected by absences. Some instructors also have policies about class tardiness, to encourage students to be present for the full class period. Check your course syllabus or talk to your instructor about his/her policies.

**HOW TO CONTACT A FACULTY MEMBER OR ADVISOR**

If you have questions or need help, talk to your instructor. Faculty office locations, phone numbers, and office hours may be obtained from the class syllabus or department office, through the College of Arts and Sciences web page at <http://www.ferris.edu/htmls/colleges/artsands/>, or through the Directories & Maps link on the FSU home page.

**DROPPING CLASSES OR WITHDRAWING**

Dropping and adding only occurs during the first four days of the term. You can adjust your schedule **online during the first four days** or in person at the Timme Center (from 8-5 except for the last day when it is 12-5). *If you add a class you must pay for your additional charges by the fourth day or your schedule will be dropped.*

If you need to withdraw from a class after the official drop/add period, you must do so **OFFICIALLY**, through your dean's office, in order to avoid receiving an "F" grade in the course. **You may not withdraw online after the first four days of the term.** You will receive a "W" for the course. *You will not receive a refund.* If you need to totally withdraw from the University, you must do so **officially** at Admissions and Records in CSS 101. The last day to withdraw or drop a class may be different for different classes. **CHECK THE SESSIONS DATES SECTION ABOVE OR THE REGISTRATION AND ACADEMIC GUIDE FOR THE WITHDRAWAL DEADLINES FOR THE SEMESTER.** In cases of extenuating circumstances (e.g., a serious illness requiring you to withdraw from school), contact Birkam Health Center at 591-2614.

**INCOMPLETES**

The "I" is only considered for extenuating circumstances that have led to a student missing a portion of the course. The intent and appropriate use of the "I" grade is NOT to avoid student probation, dismissal, or unacceptable grades, nor should it be considered as an extended alternative to withdraw from a class (W). Extenuating circumstances are generally defined as those situations over which the student has little or no control—e.g., illness, birth, jury duty, death of a parent, serious injury. Instructors may require suitable documentation.

Students must have completed at least 75% of the coursework at passing levels before an "I" will be considered, and they may be required to sign an agreement regarding course completion. An "I" grade automatically changes to an "F" after one semester (not counting summer) unless the faculty member files another grade or extends the incomplete.

## GRADUATION

Students should apply for graduation the semester prior to their last semester of completion. For associates in arts or associates in science degrees, this needs to be completed at the Dean's Office. For bachelor degrees, this needs to be completed with your program coordinator. Be aware of deadlines for participation in commencement.

## INCLEMENT WEATHER CONDITIONS

Only during the most severe weather conditions – which could potentially endanger the safety of students or staff – will the Big Rapids campus consider cancelling classes. The decision to cancel classes due to weather conditions at the Big Rapids site will be made as early as possible. In the event it is necessary to cancel classes, periodic announcements will be made on area radio and television stations. It is the student's responsibility to listen for these announcements. A student may also call the Ferris Information Line at 231-591-5602 to obtain information or check the Ferris website.

## ACADEMIC MISCONDUCT

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Academic misconduct refers to dishonesty or misrepresentation with respect to assignments, tests, quizzes, written work, oral presentations, class projects, internship experience, or computer usage; violation of computer licenses, programs, or data bases; or unauthorized acquisition or distribution of tests or other academic material belonging to someone else. It includes such behaviors as cheating, copying materials from the internet without documentation, presenting another person's ideas or work as your own, taking someone else's exam for them, violating computer software licenses or program/data ownership, etc. It is the expectation of the College of Arts and Sciences that all work you turn in is your own and is original for the course in which it is being submitted. If you are uncertain about whether a particular behavior might represent academic misconduct, be sure to ask your professor for clarification.

Penalties for academic misconduct can include **FAILURE** of the assignment or the course, and/or disciplinary action up to and including probation or dismissal from the University.

### DISRUPTIVE BEHAVIOR

The College of Arts and Sciences strives to maintain a positive learning environment and educational opportunity for all students. Consequently, patterns of behaviors which obstruct or disrupt the teaching/learning environment will be addressed. The instructor is in charge of his or her course (e.g., assignments, due dates, attendance policy) and classroom (e.g., behaviors allowed, tardiness). Harassment, in any form, will not be tolerated.

Penalties for disruptive behavior can include involuntary withdrawal from the course and/or disciplinary action up to and including probation or dismissal from the University. The full Disruptive Behavior Policy is available on the College of Arts and Sciences website at <http://www.ferris.edu/htmls/colleges/artsands/student-resources/disruptive-behavior.htm>

**For additional policies and helpful information, check out the College of Arts & Sciences Student Resources page at <http://www.ferris.edu/HTMLS/colleges/artsands/student-resources/>**

## WHERE TO GO FOR HELP

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### ACADEMIC ADVISING

All students have an assigned advisor and should confer with that advisor regularly. Students who have declared a major should see an advisor in that major. To find out who your advisor is, login to MyFSU and click on the Academics and Services tab, then Registration Status / Advisor Information link.

**ACADEMIC SUPPORT CENTER.....ASC 1017 – 591-3543**

**THE WRITING CENTER.....ASC 1017 – 591-2534**

**The Academic Support Center, Tutoring Services, and Writing Center** join together to offer FSU students an array of academic support services. Tutors are available to answer questions for many courses. The Writing Center helps writers individually and in workshops with skills and assignments. There is also study skills assistance to help with note-taking, test-taking, memory and reading strategies, and time management.

**DISABILITIES SERVICES.....STR 313 – 591-3057**

According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. Students requiring a classroom accommodation due to a physical, learning, mental or emotional disability should contact the Disabilities Services Office.

**SCHOLAR PROGRAM.....ASC 1021 – 591-5976**

SCHOLAR is an academic support program that aids in the student's successful progression by offering a Peer Mentor Program, a Student Retention Program, and an Academic Student Advisory Committee.

**PERSONAL COUNSELING, SEXUAL ASSAULT, SUBSTANCE ABUSE BIRKAM HEALTH CENTER ..... 2<sup>nd</sup> Floor - 591-5968**

Personal counseling is available confidentially and free of charge. Counselors are available to assist with personal and stress-related problems, family and relationship issues, substance abuse, sexual assault, depression, or other similar problems. Call or stop by to obtain an appointment.

***If you or a friend is in immediate crisis, call 911.***

### SAFETY

Please observe the posted shelter and evacuation routes in the hallway nearest your classroom.

## OTHER RESOURCES

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**BIRKAM HEALTH CENTER.....591-2614**

The Birkam Health Center provides medical care including evaluation and treatment for illness and injury anytime during the year. Patients are seen on a walk-in and by appointment basis.

The following services are available to any Ferris student, free of charge. They are designed to help you succeed in your courses, in your career planning, and in meeting the challenges of university life. Don't hesitate to explore and use these services at Ferris.

**FLITE LIBRARY.....591-2669**

Regular hours for FLITE:

Monday – Thursday . . . . . 7:30 am – Midnight  
Friday . . . . . 7:30 am – 6:00 pm  
Saturday . . . . . 12:00 pm – 5:00 pm  
Sunday . . . . . 1:00 pm – Midnight

**FSU BOOKSTORE.....RANKIN CENTER - 591-2607**

Regular hours for Bookstore:

Monday – Thursday . . . . . 9:00 am – 6:00 pm  
Friday . . . . . 9:00 am – 5:00 pm  
Saturday . . . . . 11:00 am – 4:00 pm  
Sunday . . . . . CLOSED

## HELPFUL NUMBERS

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Admissions	2100	Inst. Testing	3628
Business Office	2125	Public Safety	5000
Financial Aid	2110	Records	2792
Housing	3745	TAC	4822

When calling from off campus, extensions can be called by using the prefix 231-591-\_\_\_\_\_.