



Your University of Choice

COURSE SYLLABUS

Term: SPRING 2017

**Course: BIOL 205 PLANTS, ANIMALS AND ECOSYSTEMS
Lab – Section A**

Instructor Information:

Instructor Name	Dr. Fiona Groninger-Poe
Office Number:	331
Phone Number:	(219) 473-4357, leave a message
Email:	fpoe@ccsj.edu To contact Dr. Poe using e-mail: 1. Use your CCSJ account 2. Type "Biol 205" in the subject line 3. Compose and send your e-mail <i>These rules exist because Dr. Poe can easily find relevant emails based on the subject line; additionally, CCSJ email accounts should be used for all CCSJ communications.</i>
Hours Available:	Office hours are posted outside of room 331; typically available 1:30-3:30 pm Monday through Thursday
Instructor Background: B.S. Manchester University (Chemistry, 2008); Ph.D. University of Illinois at Urbana-Champaign (Biochemistry, 2014); Science Olympiad Volunteer Event Supervisor (2014-present); American Society for Microbiology science teaching fellow (2013); Robert L. Switzer Teaching Award (2012). Research interests include microbiology, enzymology, agar degradation pathways, and sugar metabolic pathways in plant pathogens.	

Course Information:

Course Time:	Lab: Wednesdays 10:15 am – 11:45 am
Classroom:	334
Prerequisites:	C or better in BIOL 115 and BIOL 115L and concurrent enrollment in BIOL 205
Required Books and Materials:	Laboratory notebook with copy pages, available through Amazon or through the bookstore.
Learning Outcomes/ Competencies: Students will: <ul style="list-style-type: none">• Develop and defend hypotheses	

- Create experiments with appropriate controls, following the scientific method
- Classify organisms based on structural features
- Use scientific nomenclature standards to correctly name organisms
- Explain the evolutionary development of microorganisms, plants, invertebrates, and vertebrates
- Compare structural features and function in plants
- Relate structure and function in invertebrates
- Describe structure and function in vertebrates
- Evaluate effect of human intervention on ecosystems
- Discuss unifying concepts of biology: evolution, structure/function relationships, adaptations, and selection

Course Description:

A 1-credit course. BIOL 230L is a laboratory experience with pure cultures and sterile techniques; methods of identification of unknown microorganisms; experiments demonstrating principles of microbial genetics, transformation, antibiotic sensitivity and resistance.

Learning Strategies:

Active learning, experiential learning, BlackBoard, group discussions, small group work, team projects, collaborative learning, laboratory exercises, demonstrations, field work

Experiential Learning Opportunities:

Laboratory experience is essential for a fundamental understanding of the scientific method. This laboratory portion that provides students with experiential learning through experimental design, hypothesis development, data interpretation, and communication of results through laboratory reports. The laboratory section allows students to design and implement their own research experiment to be conducted throughout the semester.

Assessments:

Laboratory reports	11 total, lowest score dropped. Due at the start of the next lab period.	50 pts x 10 = 500 pts*
Presentation of research	1 total; cannot be dropped. Students will create a short PowerPoint presentation on their work started in Lab 4 (Nature Garden part 2) and continued throughout the semester.	100 points
Laboratory dissection practicals	Fetal pig laboratory dissection practical; make up is available; will not be dropped	100 pts

TOTAL POINTS AVAILABLE = 700 POINTS*

***The total may be adjusted based on actual number of assignments, as needed. See BlackBoard for changes and current grade.**

Grading Scale:

	100 – 92: A	91 – 90: A-
89 – 88: B+	87 – 82: B	81 – 80: B-
79 – 78: C+	77 – 72: C	71 – 70: C-

69 – 68: D+ 67 – 62: D 61 – 60: D-
 59 and below F

LABORATORY TOPICS: This is the order in which topics will be covered

1. Laboratory ethics and safety
2. Dichotomous keys
3. Nature Garden 1 – design an experiment
4. Nature Garden 2 – set up an experiment
5. Water quality/ecology
6. Worm dissection
7. Crayfish dissection
8. Fetal pig dissection part 1
9. Fetal pig dissection part 2
10. Plant diversity
11. Plant identification

DUE DATES

- WEEKLY (check BlackBoard for these assignments)
 - Pre labs can be found on BlackBoard as part of the lab handout
 - Pre-labs are due at the start of that lab (Pre lab 2 is due at the start of Lab 2)
 - Completed lab reports (often done in a laboratory notebook with carbon copy pages) are due on the *next* lab meeting (e.g. Lab 1 is due on the day Lab 2 is performed)
 - Rubrics available on BlackBoard
 - Contact the professor if you are absent during lab to determine best course of action
 - In the event of absence, lab reports can be turned in via BlackBoard or by having another student hand it in for you. Do not email your report.

Course Schedule:

Class Date	Assignments due	Class Discussion/Activities
Week 1: Jan 9 - 12 NO LAB	Use an old laboratory notebook or purchase a new one with carbon copy pages	Orientation to lab; expectations
Week 2: Jan 16-19 LAB 1 – Safety/Ethics JAN 16 – NO CLASSES JAN 17 – Last day for course changes	None	Safety/ethics presentation
Week 3: Jan 23 -26 LAB 2 – Dichotomous keys	Prelab 2 due at start of lab Lab 1 due	Complete lab 2

Week 4: Jan 30 – Feb 2 LAB 3 – Nature Garden part 1: Design an experiment	Prelab 3 due at start of lab Lab 2 due	Complete lab 3
Week 5: Feb 6 – 9 Lab 4 – Nature Garden part 2: start a semester-long experiment Feb 6 – Last day to withdraw without instructor approval FEB 6 - MIDTERM	Prelab 4 due at start of lab Lab 3 due	Complete lab 4
Week 6: Feb 13 - 16 Lab 5 – Water quality/ecology	Prelab 5 due at start of lab Lab 4 due	Complete lab 5
Week 7: Feb 20 - 23 Lab 6 – Worm dissection	Prelab 6 due at start of lab Lab 5 due	Complete lab 6 Make arrangements for your semester-long experiment
Feb 27 – Mar 2 SPRING BREAK	<i>NO CLASS – make arrangements for your experiment</i>	<i>NO CLASS – make arrangements for your experiment</i>
Week 8: Mar 6 - 9 Lab 7 – Crayfish dissection	Prelab 7 due at start of lab Lab 6 due	Complete lab 7
Week 9: Mar 13 - 16 Lab 8 – Fetal pig dissection part 1	Prelab 8 due at start of lab Lab 7 due	Complete lab 8
Week 10: Mar 20 - 23 Lab 9 – Fetal pig lab practical	NO PRELAB Lab 8 due	Complete Fetal pig reflection
Week 11: Mar 27 - 30 Lab 10 – Plant diversity	Prelab 10 due at start of lab Lab 9 due	Complete lab 10
Week 12: Apr 3 - 6 Lab 11 – Plant identification	Prelab 11 due at start of lab Lab 10 due	Complete lab 11
Week 13: Apr 10 - 13	Lab 11 due at start of lab Experiment presentations	Complete evaluations and presentations

Experiment presentations part 1 April 14, 15 - Easter Recess		
Week 14: Apr 17 - 20 Experiment presentations part 2 April 21 - LAST DAY TO WITHDRAW	Experiment presentations	Complete evaluations and presentations
Week 15: Apr 24 - 27 SEMESTER EXAMINATIONS	Additional presentations as needed, TBA	

***I reserve the right to change this schedule to meet the needs of the class.**

Responsibilities	
Attending Class	<p>You cannot succeed in this class if you do not attend. We believe that intellectual growth and success in higher education occur through interaction in the classroom and laboratories. However, we do not want to penalize students for participating in college-sponsored events. When you miss class because of a college event, you must give notice of your absence at least 24 hours in advance, and you are responsible for all missed work. Being absent doesn't excuse you from doing class work; you have more responsibilities to keep up and meet the objectives of this course.</p> <p><u>Attendance is counted as being present from the first 10 minutes of class until the end of lecture and lab.</u> It is the student's responsibility to make attendance a priority. Anyone missing after the first 10 minutes of class will be marked absent unless a written excuse is provided within 24 hours of the occurrence. Similarly, anyone leaving early without a written excuse will be counted as absent.</p> <p>Participation through regular attendance is required to be successful in this course. Therefore, if a student is absent more than three (3) times from lecture or one (1) time from lab (excessive tardiness is counted as absence), the student will be subjected to a grade of F or FW per policy stated under the Withdrawal from Classes section on this syllabus.</p> <p><u>In the event of absence during an exam, the student will receive a ZERO (0) on that exam.</u> The lowest exam score is dropped, so that exam score will not be considered when determining the final grade. If a student is absent during more than one exam, the student will receive a ZERO (0) for each exam, but only one grade will be dropped. It is the student's</p>

	<p>responsibility to ensure attendance on exam dates. In the event of multiple <i>excused</i> absences (with acceptable documentation), it is the student's responsibility to contact the instructor to determine an appropriate course of action.</p> <p><u>In the event of absence during lab, the student must contact the instructor within 24 hours of the absence to determine an acceptable course of action.</u> Each laboratory exercise is different, and in some cases a make-up lab would be impractical due to costs or time restrictions. As with exams, one lab report is dropped so one absence is permitted without penalty. For excused absences, make-up labs <i>may</i> be permitted at the instructor's discretion only if an acceptable substitute assignment can be determined.</p> <p>ALL WORK IS DUE ON THE DUE DATE SPECIFIED IN THIS SYLLABUS OR ON BLACKBOARD. If a student is absent on lab 2, the student must still turn in lab 1 due that day. Contact the instructor if an extension is needed. See "Turning In Your Work" below.</p>
<p>Turning In Your Work</p>	<p>You cannot succeed in this class if you do not turn in all your work on the day it is due. Due dates are specified for each assignment on this syllabus; any changes will be announced in class and posted on BlackBoard.</p> <p>ASSIGNMENTS WILL NOT BE ACCEPTED AFTER THEIR DUE DATES LISTED ON THIS SYLLABUS OR ON BLACKBOARD. You may request an extension in writing within 24 hours of the due date for assignments, but it is up to the instructor's discretion whether or not to allow an extension.</p> <p>If you are absent the day that an assignment is due, follow these guidelines:</p> <ul style="list-style-type: none"> • HOMEWORK: turn in via BlackBoard <u>on its scheduled due date</u> • IN-CLASS ACTIVITIES: it is the student's responsibility to collect and do this work independently after an absence. Credit is awarded for excused absences only. • LAB REPORTS: turn in via BlackBoard or handed in to the professor (sliding under office door is acceptable) <u>on its scheduled due date</u>; do not email the report. You must contact the professor to determine what to do about missing the lab section. <p>If a link is not available through BlackBoard to turn in the assignment, notify the professor via email. Do not submit your assignments via email</p>
<p>Using Electronic Devices</p>	<p>Electronic devices can only be used in class for course-related purposes. If you text or access the Internet for other purposes, you may be asked to leave, in which case you will be marked absent and will lose all participation points for the day.</p>

	In the event of an emergency in which the student needs access to phone or pager during class, the student must communicate this potential distraction to the instructor in advance of the start of class to determine a reasonable course of action. If the student does not communicate this to the instructor in advance of class, the student may be asked to leave and be marked absent, losing participation points for the day.
Participating in Class	<p>You must be on time, stay for the whole class and speak up in a way that shows you are prepared for class. If you are not prepared for class discussion, you may be asked to leave, in which case you will be marked absent and lose participation points for the day.</p> <p>Students must be prepared for class, polite and respectful, help with in-class group work, show attentiveness throughout class, and ensure that conversations stay on topic. 2 points will be deducted for each infraction, up to the maximum points for the day. If cell phones are inappropriately used students will lose all participation points for the day. Grade notes will be entered on BlackBoard describing any subtraction of points.</p>
Doing Your Own Work	<p>If you turn in work that is not your own, you are subject to judicial review, and these procedures can be found in the College Catalog and the Student Planner. The maximum penalty for any form of academic dishonesty is dismissal from the College.</p> <p>Using standard citation guidelines to document sources avoids plagiarism. For this class, you MUST use American Chemical Society (ACS) style, available online for free at the following link: http://pubs.acs.org/userimages/ContentEditor/1246030496632/chapter14.pdf</p> <p>Be sure to use your own words <i>completely</i> (use your own sentence structure not just a thesaurus to change a few words or phrases), cite your source in the text using superscript or parenthetical notation, and attach a works cited page to the end of the assignment. If your paper is similar in sentence structure, phrasing, figures, etc, to another student's <u>both</u> students will be punished based on the severity of the plagiarism.</p> <p>PLEASE NOTE: All papers may be electronically checked for plagiarism.</p>
Withdrawing from Class	After the last day established for class changes has passed (see the College calendar), you may withdraw from a course by following the policy outlined in the CCSJ Course Catalog.

Resources	
Student Success Center:	The Student Success Center provides faculty tutors at all levels to help you master specific subjects and develop effective learning skills. It is open to all students at no charge. You can contact the Student Success Center at 219 473-4287 or stop by the Library.

Disability Services:	Disability Services strives to meet the needs of all students by providing academic services in accordance with Americans with Disabilities Act (ADA) guidelines. If you believe that you need a “reasonable accommodation” because of a disability, contact the Disability Services Coordinator at 219-473-4349.
CCSJ Alerts:	<p>Calumet College of St. Joseph’s emergency communications system will tell you about emergencies, weather-related closings, or other incidents via text, email, or voice messages. Please sign up for this important service annually on the College’s website at: http://www.ccsj.edu/alerts/index.html.</p> <p>In addition, you can check other media for important information, such as school closings:</p> <p>Internet: http://www.ccsj.edu Radio: WAKE – 1500 AM, WGN – 720 AM, WIJE – 105.5 FM, WLS – 890 AM, WZVN – 107.1 FM, WBBM NEWS RADIO 78 TV Channels: 2, 5, 7, 9, 32</p>

Emergency Procedures

MEDICAL EMERGENCY

EMERGENCY ACTION

1. Call 911 and report incident.
2. Do not move the patient unless safety dictates.
3. Have someone direct emergency personnel to patient.
4. If trained: Use pressure to stop bleeding.
5. Provide basic life support as needed.

FIRE

EMERGENCY ACTION

1. Pull alarm (located by EXIT doors).
2. Leave the building.
3. Call 911 from a safe distance, and give the following information:
 - Location of the fire within the building.
 - A description of the fire and how it started (if known)

BUILDING EVACUATION

1. All building evacuations will occur when an alarm sounds and/or upon notification by security/safety personnel. **DO NOT ACTIVATE ALARM IN THE EVENT OF A BOMB THREAT.**
2. If necessary or if directed to do so by a designated emergency official, activate the building alarm.
3. When the building evacuation alarm is activated during an emergency, leave by the nearest marked exit and alert others to do the same.

4. Assist the disabled in exiting the building! Remember that the elevators are reserved for persons who are disabled. **DO NOT USE THE ELEVATORS IN CASE OF FIRE. DO NOT PANIC.**
5. Once outside, proceed to a clear area that is at least 500 feet away from the building. Keep streets, fire lanes, hydrant areas and walkways clear for emergency vehicles and personnel. The assembly point is the sidewalk in front of the college on New York Avenue.
6. **DO NOT RETURN** to the evacuated building unless told to do so by College official or emergency responders.

IF YOU HAVE A DISABILITY AND ARE UNABLE TO EVACUATE:

Stay calm, and take steps to protect yourself. If there is a working telephone, call 911 and tell the emergency dispatcher where you are **or** where you will be moving. If you must move,

1. Move to an exterior enclosed stairwell.
2. Request persons exiting by way of the stairway to notify the Fire Department of your location.
3. As soon as practical, move onto the stairway and await emergency personnel.
4. Prepare for emergencies by learning the locations of exit corridors and enclosed stairwells. Inform professors, and/or classmates of best methods of assistance during an emergency.

HAZARDOUS MATERIAL SPILL/RELEASE

EMERGENCY ACTION

1. Call 911 and report incident.
2. Secure the area.
3. Assist the injured.
4. Evacuate if necessary.

TORNADO

EMERGENCY ACTION

1. Avoid automobiles and open areas.
2. Move to a basement or corridor.
3. Stay away from windows.
4. Do not call 911 unless you require emergency assistance.

SHELTER IN PLACE

EMERGENCY ACTION

1. Stay inside a building.
2. Seek inside shelter if outside.
3. Seal off openings to your room if possible.
4. Remain in place until you are told that it is safe to leave.

BOMB THREATS

EMERGENCY ACTION

1. Call 911 and report incident.
2. If a suspicious object is observed (e.g. a bag or package left unattended):
 - Don't touch it!
 - Evacuate the area.

TERRORISM AND ACTIVE SHOOTER SITUATIONS

EMERGENCY ACTION

1. Call 911 and report intruder.

RUN, HIDE OR FIGHT TIPS:

1. **Prepare** – frequent training drills to prepare the most effectively.
2. **Run and take others with you** – learn to stay in groups if possible.
3. **Leave the cellphone.**
4. **Can't run? Hide** – lock the door and lock or block the door to prevent the shooter from coming inside the room.
5. **Silence your cellphone** -- use landline phone line.
6. **Why the landline?** It allows emergency responders to know your physical location.
7. **Fight** – learn to “fight for your life” by utilizing everything you can use as a weapon.
8. **Forget about getting shot – fight!** You want to buy time to distract the shooter to allow time for emergency responders to arrive.
9. **Aim high** – attack the shooter in the upper half of the body: the face, hands, shoulder, neck.
10. **Fight as a group** – the more people come together, the better the chance to take down the shooter.
11. **Whatever you do, do something** – “react immediately” is the better option to reduce traumatic incidents.