



NORTHEAST IOWA COMMUNITY COLLEGE

Northeast Iowa Community College provides in-demand education and training focused on improving lives, driving business success and advancing community vitality.

BIO 125 94101 Plant Biology

Fall 2021

Delivery Method:

- Online

Meet Days/Times/Location:

- Online; ONL

Start and End Dates:

- 8/24/2021 - 12/13/2021

Academic Department: Liberal Arts, Science and Business

Instructor Information

Name: Matthew Simon

Phone: 8104

Email: simonma@nicc.edu

Office Location: DC 3

Office Hours: Monday, Tuesday, Thursday, 10:00am-12:00pm

Best Method to Contact Instructor: email, simonma@nicc.edu

NICC email is the official means of communication, you should regularly check your email.

NICC has a commitment to respond to student communication within 24 hours on a school day, and 48 hours on non-school days.

Required Materials

Concepts of Biology

This is an OER textbook, no purchase is necessary

Authors: Fowler, S., Roush, R., Wise, J.

Publisher: <https://openstax.org/books/concepts-biology>

Biology 2e

This is an OER textbook, no purchase is necessary

Authors: Clark, M., Douglas, M., Choi, J.

Publisher: <https://openstax.org/details/books/biology-2e>

Some laboratory activities for this class will require access to some equipment, all of which can be found in a “usual” at-home setting or purchased from local stores at a nominal cost and may include but not be limited to: Celery stalks, potatoes, food coloring, salt, some fruits, paper towel, plastic bags, cooking oil, rubber bands, small paper bag, small bowls. Again, this is not meant to be an exhaustive list but indicative of the types of materials you will/may need throughout the semester.

Course Information

Course Description: General concepts of botany with an emphasis on basic botanical terminology, anatomy, physiology, taxonomy and ecology. Special consideration given to the identification and cultural characteristics of local native plants.

Major Course Objective:

To develop an awareness of botanical processes and systems and an appreciation of the interrelationships between plant populations and humans in contemporary society.

Primary Common Learning Outcome Assessed: Critical Thinking

Educational Learning Outcomes:

- The Development of Plant Study
- The Nature of Life, Cells, and Tissues
- Roots, Stems, and Leaves, Flowers, Fruits, and Seeds
- Metabolism and Growth and Water in Plants and Soils
- Meiosis, Genetics, and Plant Biotechnology
- Evolution

- Plant Names and Classification
- Kingdoms Monera, Protista, and Fungi
- The Plant Kingdom and Vascular Plants
- Gymnosperms and Angiosperms
- Ecology and Flowering Plants and Civilization
- Identification and Cultural Characteristics of Local Native Plants

Grading Procedures and Scale

Grade	Grading Scale by Percent of Total Points <i>Ex. (94 - 100%)</i>	Grading Scale by Points <i>Ex. (940 - 1000+)</i>
A	100-93	360-334
A-	92-90	333-324
B+	89-87	323-313
B	86-83	312-298
B-	82-80	297-288
C+	79-77	287-277
C	76-73	276-262
C- (or P)	72-70	261-252
D+	69-67	251-241
D	66-63	240-226
D-	62-60	225-216
F (or NP)	59-0	215-0

	# of Assignments	Points / Percentage
Writing assignments	11	115
Discussion forums	15	145
Labs	10	100
Total Points possible		360

Scores for assignments will be included in Brightspace gradebook usually within one week after the due date. Larger projects may require more time and scores will be posted for them as available. If a student would like to challenge a grade (incorrect math, disagreement on grading, missing score, etc) they must begin that process (via

email with instructor) within one week after grades have been posted to Brightspace, after which time scores for individual assignments will be considered as final.

Final: The final date and time will be announced later in the semester. Faculty members may choose to give an exam or incorporate a project/presentation as a final. If a final exam is not given, class is still held at the scheduled final exam time to complete the required goals and objectives of the course and meet the scheduled required hours.

Course Calendar

The course calendar is a guide for activities and subject to change at faculty discretion.

Week	Tuesday of week	General Topics Covered	Writing Assignment	Discussion Topic(s)	Lab Activity
1 *Reading: BIO 2e Chap 30 introduction	8/24	Introduction, History of plant science, current state of plant science, future of plant science ELO, a; PLO, 1, 3, 5; CLO, CT	What do you know about plants? (5 pts)	Introductions! (5 pts)	NA
2 COB chap 1&2	8/31	scientific method, chemistry basics ELO, a; PLO, 1, 3, 5; CLO, CT	Scientific Claims (10 pts)	Legitimacy of science (10 pts)	Supermarket Molecules (10 pts)
3 COB chap 3	9/7	Organisms, cells, ELO, b; PLO, 1, 3, 5; CLO, CT	NA	Endosymbiosis (10 pts)	Cell Design (10 pts)
4	9/14	plant	Roots and	Cover	Potato Lab

BIO 2e Chap 30		structures and functions; stems, roots ELO, c; PLO, 1, 3, 5; CLO, CT	Stems (10 pts)	Cropping (10 pts)	(10 pts)
5 BIO 2e Chap 30	9/21	Plant structures and functions; leaves, flowers, fruits, seeds. Also monocots vs dicots, ELO, c, d; PLO, 1, 3, 5; CLO, CT	Fruits, Leaves, etc (10 pts)	NA	Potato Lab Continued
6 BIO 2e Chap 30 & 31	9/28	Soils and water movement through plants ELO, d; PLO, 1, 3, 5; CLO, CT	NA	Challenges of soil management (10 pts)	Soils Lab (10 pts)
7 COB chap 4 & 5	10/5	Photosynthesis and respiration ELO, d; PLO, 1, 3, 5; CLO, CT	Glycolysis and CA Cycle (10 pts)	Sweet Beets! (10 pts)	Soils Lab, Continued
8 BIO 2e Chap 30	10/12	Growth, hormones, tropisms, regulation ELO, d; PLO, 1, 3, 5; CLO, CT	Week 8	Tropism questions (10 pts)	Soils Lab, continued

9	10/19	sexual and asexual reproduction, genetics basics ELO, e; PLO, 1, 3, 5; CLO, CT	NA	Tropism questions, continued	Gravitropism Lab (10 points)
10	10/26	Genetic engineering and applications, evolution and natural selection ELO, e,f; PLO, 1, 3, 5; CLO, CT	Plant Researcher (10 pts)	GMOs! (10 pts)	Gravitropism Lab, continued
11	11/2	Systematics basics, prokaryotes, eukaryotes from protists to fungi ELO, f, g, h; PLO, 1, 3, 5; CLO, CT	NA	Significance of fungal interactions (10 pts)	NA
12	11/9	True plant systematics ELO, g, i; PLO, 1, 3, 5; CLO, CT	NA	Importance and utility of systematics (10 pts)	Phylogenetic Tree Lab (10 pts)
13	11/16	Seedless vascular plants	NA	Bryophytes	Phylogenetic Tree Lab, Continued

		ELO, g, i; PLO, 1, 3, 5; CLO, CT			
14 BIO 2e chap 26 & 32.1	11/23	Gymnosperms ELO, g, i, j; PLO, 1, 3, 5; CLO, CT	NA	NA	Pollinators Lab (10 pts)
15 BIO 2e chap 26 & 32	11/30	Angiosperms, pollination, diversity, utility ELO, g, i, j; PLO, 1, 3, 5; CLO, CT	NA	Pollinators Discussion(10 pts)	Pollinators Lab, continued
16 COB chap 19 & 20	12/7	Ecology, systems, succession, biomes ELO, k, l; PLO, 1, 3, 5; CLO, CT	Biomes (10 pts)	NA	NA
17	12/14		Final Exam (20 pts)		

Schedule and points awarded value are subject to change

*Readings will help you prepare your writing and discussions for each week and are from:

Concepts of Biology (COB)

<https://openstax.org/details/books/concepts-biology>

and/or

Biology 2e (BIO 2e)

<https://openstax.org/details/books/biology-2e>

All assignments will cover PLOs 1, 3, 5, 6 from below.

PLOs Associate of Science

1. Students will demonstrate the ability to communicate effectively with various audiences using various methods
2. Students will demonstrate competence in problem-solving, logical thinking, and the application of mathematical processes
3. Students will demonstrate the ability to apply fundamental concepts in the natural sciences
4. Students will understand the methods and models by which the social sciences study individuals, cultures and societies
5. Students will demonstrate an understanding of diverse cultures, historical viewpoints, and global perspectives
6. Students will locate, evaluate and responsibly use and share information
7. Competent and relevant technology skills

Primary Common Learning Outcome Assessed: Critical Thinking (CT)

Educational Learning Outcomes:

a The Development of Plant Study

b The Nature of Life, Cells, and Tissues

c Roots, Stems, and Leaves, Flowers, Fruits, and Seeds

d Metabolism and Growth and Water in Plants and Soils
e Meiosis, Genetics, and Plant Biotechnology
f Evolution
g Plant Names and Classification
h Kingdoms Monera, Protista, and Fungi
i The Plant Kingdom and Vascular Plants
j Gymnosperms and Angiosperms
k Ecology and Flowering Plants and Civilization
l Identification and Cultural Characteristics of Local Native Plants

Student Course Feedback

Prior to course completion you will receive an email providing a link to share your feedback. You are EXPECTED to complete the feedback form for each class.

Assessment

Northeast Iowa Community College is an institution dedicated to continuous instructional improvement as part of our assessment efforts. It is necessary for us to collect and analyze course level data. Data drawn from student work for the purposes of institutional assessment will be posted in aggregate and will not identify individual students. Your continued support in our ongoing effort to provide quality instructional services at NICC is appreciated.

College Policies

Attendance/Academic Engagement

(See College Handbook for more details) Regular attendance is expected. A strong relationship exists between success in college and class attendance. Absence in class interferes with the learning process and may lead to academic failure. Students should confer with the instructor immediately following an absence. When there is advance knowledge of an absence, students should discuss this with the instructor prior to the absence.

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

Academic Integrity

Academic integrity is the commitment to and demonstration of honesty, ethics, and taking personal responsibility for your work in an academic setting. Academic integrity includes honesty, fairness, respect and responsibility. Academic integrity requires student's work to be the product of their own thought and effort, and to ensure that the intellectual contribution of others is properly documented. Academic integrity applies to all academic activities, including, but not limited to, classwork, labs, clinical field, practicum or co-op assignments. Examples of violations of academic integrity include, but are not limited to, plagiarism, cheating, lying, falsifying data, and aiding dishonesty. Violations of academic integrity are addressed according to the [Academic Integrity Policy](#), and sanctions may include, but not be limited to, warnings (either verbal or written), grade reduction for an assignment, project or test, or a failing grade for the course. Sanctions for violations of academic integrity for a course shall be determined by the faculty member for the course. Pursuant to the Student Conduct Code, egregious or repeated violations of the academic integrity policy may result in the suspension or expulsion from a class or from the College, as determined by the College.

Class Continuation during Campus or Center Closing

Instructional continuity is critical to the College mission and to your success in this class. As such, should a campus or center close due to weather or unforeseen circumstances, please check your Brightspace class for specific instructions and expectations from your instructor due to the campus closure.

Classes will not be canceled, and students will be expected to continue to engage in this class remotely until such a time as classes can return to normal.

For notification on campus closures, please refer to the following:

<https://www.nicc.edu/about/consumer-information/emergency-response-and-procedure/>

Campus Emergencies

In the event of a campus emergency, an alarm will sound or an appropriate announcement will be made. An emergency response guide, building evacuation routes

and severe weather shelter areas are posted in each room. Safety drills are held on a regular basis. For more information, visit campus emergencies in the college catalog.

Course Section Policies

Absence/Illness

You are expected to meaningfully engage with all course material throughout the semester. You are expected to provide thoughtful discussion with your classmates in the online classroom environment as well as engage with instructor feedback and discussion in a timely fashion. This is an online course so time management is important, unless there is a severe illness or other major issue, I will not open up closed discussions, writing assignments, etc without full documentation and only at the instructors discretion.

Academic Integrity Violations

Academic honesty and integrity are integral to the academic process. Academic dishonesty – cheating, plagiarism and collusion – is a serious offense which undermines the educational process and the learning experience for the entire college community. If a student is found to be cheating the student will receive a zero for the assignment and may be referred for additional disciplinary action.

For a detailed explanation of plagiarism, visit the Lib Guide on plagiarism at <http://nicc.libguides.com/citingsources>

Late Work

Unexcused late work will not be accepted and will receive a grade of 0% except in cases of extreme emergency (family death, hospitalization, etc.), and documentation in the form of a doctor's note, obituary, etc. will be required. If you know you will miss a deadline you must contact the instructor and make adequate arrangement several days in advance to ensure you can get any work that may be due. Communication is required to avoid problems.

Missing Assignments

Missing assignments will receive a score of zero points.

Makeup Testing

Tests will not be able to be made up except in case of extreme emergency (family death, hospitalization, etc.) and documentation in the form of a doctor's note, obituary, etc. will be required.. These cases will be determined on a case-by-case basis with the instructor, timely and thorough communication is required.

Use of Technology

Cell Phone/Text Messaging Usage

N/A, online

Laptop Use

Laptops or other computers are encouraged

Recording

Please schedule a meeting with your instructor to discuss recording during class.

Classroom Conduct

As a student in this course (and at this College) you are expected to maintain a high degree of professionalism, commitment to active learning and participation in this class; and also integrity in your behavior in and out of the classroom in which the rights, dignity, worth, and freedom of all members of the class are respected. Please refer to the [College Catalog](#) for detailed information on the [Student Conduct Code](#).

Additional Information

Learning Center

The NICC Learning Centers provide tutoring assistance free of charge to any student in person Monday through Friday or virtually online with our online tutoring service 24/7 with [Upswing](#). Students are encouraged to utilize the Learning Centers in Calmar, Peosta or Dubuque.

Access

Take advantage of the *ReadSpeaker Listen Button* to enhance understanding and comprehension of the materials in this and any syllabus within the content area. All of the materials posted in the content area of NICC Brightspace classrooms have a *Listen*

Button to have the text highlighted and read for you. Listening to text read aloud is shown to improve reading comprehension. www.nicc.edu/readspeaker

ReadSpeaker for Brightspace by D2L



Course Copyright

All course materials students receive or to which students have online access are protected by copyright laws. Students may use course materials and make copies for their own use as needed, but unauthorized distribution and/or uploading of materials without the instructor's express written permission is strictly prohibited. Students who engage in the unauthorized distribution of copyrighted materials may be held in violation of the College's Code of Conduct, and/or liable under Federal and State laws.

Netiquette

The term "Netiquette" refers to the etiquette guidelines for electronic communications, such as e-mail and bulletin board postings. Netiquette covers not only rules to maintain civility in discussions, but also special guidelines unique to the electronic nature of forum messages.

Accommodation Policy

In accordance with the Americans with Disability Act, NICC ensures the accessibility of its programs, classes, and services to students with disabilities. For any questions or to apply for disability services please contact the Accessibility Services Office to set up an appointment, or visit the Accessibility Services website at:

<https://www.nicc.edu/academic-support/disability-services/accommodations/> for additional information. Any student eligible for and needing academic accommodations because of a disability is requested to speak with their instructor.

Sally Mallam, M.S.
Director of Accessibility Services
844.642.2338 ext. 1258
mallams@nicc.edu

Statement of Non-Discrimination

It is the policy of Northeast Iowa Community College not to discriminate on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family or marital status in its programs, activities, or employment practices as required by federal and state civil rights regulations. If you have questions, concerns or to read the full policy at:

<https://www.nicc.edu/aboutnicc/nondiscriminationpolicy/>.

Title IX: Confidentiality and Responsible Employee Statement

Northeast Iowa Community College faculty are committed to helping create a safe and open learning environment for all students. If you (or someone you know) have experienced any form of sexual misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available. The College strongly encourages all members of the community to take action, seek support and report incidents of sexual misconduct to the Title IX Office. Please be aware that under Title IX of the Education Amendments of 1972, I am required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact one of NICC's Counselors (Calmar Campus 844.642.2338, ext. 1378 / Peosta Campus 844.642.2338, ext. 2215). For more information about reporting options and resources visit [Sexual Respect and Title IX](#).

Disclaimer

This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check the Learning Management System (Currently Brightspace) for corrections or updates to the syllabus. Any changes will be clearly noted by your instructor or listed in the course announcements or through NICC email.