



**22 Spring Semester**

## **Introductory Biology**

**BIO 110.H3**

**Number of Credits:** 4 credits

**Hybrid Course:** Online with face-to-face labs

**Meeting Times:** Thursdays 12:30-2:30pm

**Online Office Hours:** 9-11am Tues & Thurs

**Instructor:** Dr. Curt Blankespoor

**Contact Email:** blankescurtis@jccmi.edu

**Contact Phone:** 616.401.1848

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### **Course Description**

Students will investigate the nature of science and critically analyze scientific data and current biological issues. Basic biological concepts including cell structure and function, context of current issues. This course is designed for non-science majors. This course includes a laboratory component.

### **Prerequisite(s)**

ENG 085 or 090, and MAT 031

### **Course Focus**

The main focus of this course is to improve scientific literacy. Many students fail to see the relevance of science in their lives. To address this, this course will approach science from current topics that you should be able to relate to in your life. We will then need to learn some biology to understand these topics.

### **Course Objectives**

Students successfully completing this course should be able to:

1. Describe the nature of science and how it is a self-correcting process
2. Understand the factors affecting global warming and other human impacts on the environment
3. Identify cell structures and describe their functions
4. Explain the origin of cancer cells and factors affecting their growth
5. Understand the basic structure and function of DNA
6. Understand the mechanisms of evolutionary change and how evolution differs from non-scientific explanations

### **General Education Outcomes**

The course goals and objectives incorporate specific General Education Outcomes (GEOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges and universities and reflect input from the professional communities we serve. GEOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The GEOs and course objectives addressed in this class include the following:

**GEO 4—Demonstrate Scientific Reasoning** (addressed through course objectives 1-6)

***IMPORTANT: NO TEXTBOOK REQUIRED FOR THIS COURSE***

***(but other course fees may still apply)***

Please review the cost of your required materials fall *all* your classes this semester to determine the best option for you to purchase your materials. See <https://www.jccmi.edu/bookstore/textbook-program/> Please note, the opt-out option is for your *entire* semester schedule. You cannot opt out/opt into individual courses. And you must opt out by the due date of your first class, which is the 3<sup>rd</sup> day after the start of your earliest course.

For account billing questions, please contact the Jackson College Cashier at [jccashier@jccmi.edu](mailto:jccashier@jccmi.edu)

## Grading Procedure

The course is structured around 7 content modules. Most modules contain 7 assignments (a “passport” worksheet, two lab reports, a movie worksheet, a deep dive assignment, a position paper, and a summary quiz). All assignments, with the exception of module quizzes, are graded daily on a S/U (Satisfactory/Unsatisfactory) scale. Each assignment can be resubmitted an unlimited number of times prior to its deadline, **but only once on the date it is due.**

**Late work:** Unless special arrangements are made in advance, no credit will be given for late work. In fairness to students who complete their work on time, this policy will be strictly enforced.

**Extra Credit:** No extra credit will be given/accepted under any circumstance.

## Grading Scale

The requirements for a 2.0 grade are found in the table below.

Assessment Category	Number	Requirement
Module “Passport” Worksheets	7	Must earn an “S” grade on each worksheet
Lab Reports	13	Must earn an “S” grade on each report
Movie Worksheets	6	Must earn an “S” grade on each worksheet
Module Quizzes	7	Must an “S” grade (75% or higher) on each quiz

Important note: Failure to achieve a grade of “S” by the due date on any of the assignments above will result in you being immediately dropped from the course (or given a 0.0 grade).

Grade enhancer requirements are found in the table below.

Assessment Category	Requirement	Grade Enhancer
Deep Dives	Must earn an “S” grade on 6 of 7 assignments	+0.5 GPA unit
Position Papers	Must earn an “S” grade on 6 of 7 assignments	+0.5 GPA unit
Module Quizzes	Must have an average score between 85-90% (all 7 quizzes)	+0.5 GPA unit
	Must have average score of 90% or higher (all 7 quizzes)	+1.0 GPA unit

Important notes: All S/U assignments must be completed on or before their due date. You may qualify for more than one grade enhancer.

## Failure

The college is required to drop students from classes if they are not participating. Examples of non-participation include, but are not limited to:

- Failure to attend the first or second day of class without contacting the instructor
- Failure to complete three or more required assignment by its due date

Any of these examples of non-participation may result in your immediate dismissal from the course. If you fail to participate after the final reporting period you will not be automatically dropped from the course, but will receive a grade of 0.0 for failing to participate in the course.

Students own the responsibility of the effect of being dropped. Being dropped from the class may affect financial aid or housing status. If you are dropped, the drop status will NOT be changed due to the impact on financial aid, housing status, etc.

## Course Management

**Incompletes:** In accordance with JC's Incomplete Grade policy, a student may request the grade of Incomplete if they are unable to complete the course work for some documentable unforeseen circumstance. The Incomplete will be granted if at least 50% of the assigned work in the course (including both assignments and exams) has been performed with sufficient quality (with an average grade of 2.0) and the student provides documentation of the circumstance. The student will be required to provide a detailed written schedule with due dates for making up the missing work during the following semester.

## Academic Honesty Policy

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

Plagiarism is defined as the failure to give credit for the use of material from outside sources. Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

Cheating is defined as obtaining answers/material from an outside source without authorization. Cheating includes, but is not limited to:

- Copying
- Falsifying data
- Altering graded work
- Plagiarizing in any form
- Allowing your work to be submitted by others
- Exhibiting other behaviors generally considered unethical
- Using notes/books/electronic material without authorization
- Submitting others' work as your own or submitting your work for others

**Any violations of this policy may result in immediate dismissal from the course with a 0.0 grade.**

## Accessibility

Jackson College understands that cultivating a broadly diverse community is crucial to our educational mission and to our foundational commitment to leadership and service. Jackson College is fully committed to ensuring our courses are accessible to everyone including those with disabilities. We are currently working to increase accessibility and usability of our course materials in order to meet or exceed the requirements of Section 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1991 and Web Content Accessibility Guidelines (WCAG) 2.0. For more information about Jackson College's efforts to ensure accessibility please visit the [Jackson College accessibility web page](#).

If you have an accessibility need in any of your classes, please e-mail the Center for Student Success at [JCCSS@jccmi.edu](mailto:JCCSS@jccmi.edu) or visit the [Center for Student Success web page](#).

## Support

At the Center for Student Success (CSS), we are committed to providing all students the opportunity to achieve academic success by providing a variety of support services free of charge to Jackson College students. This includes, but is not limited to, peer and faculty tutoring, mental health referral, temporary assistance with transportation, various workshops/seminars, and the TRIO program.

In addition, the CSS staff is committed to adapting the College's general services to meet the individual needs of otherwise qualified students with disabilities, for the purpose of providing equal access to all programs and facilities.

If you need any specific accommodations, it is your responsibility to make me aware of those needs as soon as possible so suitable arrangements may be made. Accommodations cannot be applied retroactively.

## Oasis Center

During a student's college experience, one might encounter situations that impact their learning environment. When these situations occur, support from the Oasis Center is available to provide short-term assistance. If the situation requires ongoing support, the Oasis Center staff can provide that level of support or will assist the individual in securing an outside agency to provide it.

For more information visit the Jackson College Oasis Center webpage <https://www.jccmi.edu/the-oasis-center/>

## Health Clinic

Jackson College has partnered with Henry Ford Allegiance Health to offer healthcare to Jackson College students and employees. The Jackson College Health Clinic (JCHC) is located on Central Campus in the Justin Whiting Hall, Room 111. The caring and professional staff at the JCHC provides quality healthcare, including annual exams (physicals, program physicals and sports physicals), acute and chronic illness care and preventative health care (It's Your Life).

For more information visit the Jackson College Health Clinic webpage <https://www.jccmi.edu/health-clinic/>

## Dental Clinic

Community members may utilize Jackson College Dental Hygiene Clinic, which offers dental hygiene services while helping students gain experience. Students work under the supervision of license dental hygiene instructor and dentist as they offer preventative services.

For more information visit the Jackson College Dental Clinic webpage <https://www.jccmi.edu/dental-hygiene/dental-hygiene-dental-clinic/>

## Attendance Policy

Just as in a traditional classroom course, regular class participation and keeping up on the reading and assignments is strongly correlated with survival in college. It is my recommendation that you plan to do your assignments and take your exams BEFORE the last day they are due. If problems occur, there is time to fix them before the deadline.

In compliance with Federal Title IV funding requirements, as well as college initiatives, I will be monitoring student participation on a regular basis and officially reporting student activity throughout the term to assure compliance with college policy and federal regulations. It is imperative that you log in to the course and actively participate **within the first couple of days of the term** to validate your enrollment in the course. After that, not actively

participating in class may result in you being withdrawn from the course. Being withdrawn from a course can have an impact on financial aid, billing, athletic eligibility, and housing status. As a college student you are responsible for how your participation impacts your academic progress; the accountability lies with you.

### **Caveat**

The policies included in this document are subject to change at the instructor's discretion. Some minor revisions may be necessary during the semester due to unforeseen circumstances (e.g., weather-related school closings, instructor illness, etc.).

### **Expectations & Guidelines for Success**

- Attend all classes and arrive on time
- When you have an unavoidable absence, contact the instructor for missed assignments
- Read the assigned chapters, either before or after lecture. This will help reinforce the topics covered.
- Study class materials for at least 2 hours outside of class for each hour in class.
- Participate in class discussions.
- Participate in group study sessions, this can be the most effective form of learning for many students
- Do not hesitate to contact the instructor about concerns you may have with the class.
- Make use of the instructor's office hours.
- Review study practices at <https://www.jccmi.edu/science/how-to-study-science/>

## Calendar

### Syllabus Revisions/Changes

All schedules and policies contained in this document are tentative and are subject to revision at the instructor's discretion with timely notice.

### Course Outline

The course will be divided into 7 modules, each will take 2 weeks. Details on what is covered and the dates for each module are outlined below.

**IMPORTANT:** Note that all modules will start on Sunday and finish on Saturday. Assignments must be submitted by 9:00 PM on the day they are due. Module 7 has an abbreviated timeline and deadlines.

### Class schedule

MODULE	DATES	TOPIC	QUIZ DEADLINE
1	January 16-29	Nature of Science	January 29
2	January 30-February 12	Evolution, Natural Selection	February 12
3	February 13-26	Climate Change	February 26
4	February 27-March 9	Nutrition, Activity, Wellness	March 19
5	March 20-April 2	Genetics	April 2
6	April 3-16	DNA, Genetic Engineering	April 16
7	April 17-29	Human Population Growth	April 29

### Laboratory schedule

MODULE	DATES	LABORATORY EXERCISES
1	January 16-29	Experimental Design I, Experimental Design II
2	January 30-February 12	Scientific Measurements, EvoDots Simulation
3	February 13-26	Graphing Data Sets, What's your Ecological Footprint?
4	February 27-March 9	Food Labels and Healthy Eating
5	March 20-April 2	Biostatistics and Forensic Analyses, Corn Genetics
6	April 3-16	Habitat Exploration I, DNA/Genetic Engineering
7	April 17-29	Habitat Exploration II, Habitat Exploration III

## Assignment Due Dates

		Assignment Due Dates					
2022		Passport	Movie	Deep Dive	Position Paper	Lab	Quiz
January	13	Th	Class 12:30-2:20pm				
	15	Sa					
	16	Su	Module 1				
	20	Th	Class 12:30-2:20pm				
	22	Sa		Module 1		Lab 1.1	
	23	Su	Module 1				
	27	Th	Class 12:30-2:20pm				
	29	Sa			Module 1	Lab 1.2	Module 1
30	Su	Module 2					
February	3	Th	Class 12:30-2:20pm				
	5	Sa		Module 2		Lab 2.1	
	6	Su	Module 2				
	10	Th	Class 12:30-2:20pm				
	12	Sa			Module 2	Lab 2.2	Module 2
	13	Su	Module 3				
	17	Th	Class 12:30-2:20pm				
	19	Sa		Module 3		Lab 3.1	
20	Su	Module 3					
24	Th	Class 12:30-2:20pm					
26	Sa			Module 3	Lab 3.2	Module 3	
27	Su	Module 4					
3	Th	Class 12:30-2:20pm					
5	Sa		Module 4		Lab 4		

		Assignment Due Dates					
2022		Passport	Movie	Deep Dive	Position Paper	Lab	Quiz
March	6	Su	Spring Break				
	10	Th					
	12	Sa					
	13	Su					
	17	Th	Class 12:30-2:20pm				
	19	Sa			Module 4		Module 4
	20	Su	Module 5				
	24	Th	Class 12:30-2:20pm				
	26	Sa			Module 5		Lab 5.1
	27	Su	Module 5				
31	Th	Class 12:30-2:20pm					
April	2	Sa			Module 5	Lab 5.2	Module 5
	3	Su	Module 6				
	7	Th	Class 12:30-2:20pm				
	9	Sa			Module 6		Lab 6.1
	10	Su	Module 6				
	14	Th	Class 12:30-2:20pm				
	16	Sa			Module 6	Lab 6.2	Module 6
	17	Su	Module 7				
	21	Th	Class 12:30-2:20pm				
	23	Sa			Module 7		Lab 7.1
24	Su	Module 7					
28	Th	Class 12:30-2:20pm					
29	Fr			Module 7	Lab 7.2	Module 7	

## Important Dates

DATE	EVENT
JANUARY 10, 2022	SEMESTER BEGINS
MARCH 7-11, 2022	MID-SEMESTER BREAK-NO CLASSES
APRIL 30, 2022	END OF SPRING SEMESTER

"No one cares how much you know...once they know how much you care."