



**MCB 2010C - Microbiology I**  
**Syllabus**  
**Summer 2024**

## **Course Information**

Course Title: Microbiology I

CRN: 30049

Course number with Section: MCB 2010C (1)

Course Description: This course is an introduction to the morphology, physiology, genetics and disease-causing properties of microorganisms. How the human body defends against microbial infection will also be emphasized.

Course Location: Science (#34) rm/108

Course Day and Time: M/W 2:30-5:30 PM

Prerequisites: Minimum grade of "C" in BSC 2085C or BSC 1010C

## **Instructor Information**

Name: Dr Greg Molnar

Office Location: Science (#34) rm/109

Office Hours: MW 1:00-2:30, 8:30-9:00 PM

Phone Number: (850) 973-1644

Email: molnarg@nfc.edu

Instructor Response Time for Phone/Email: End of next business day

Department Chair: Dr. Guenter Maresch

Department Chair Email: mareschg@nfc.edu

# Required Curriculum/Textbook and Course Materials

**Required text: Two options available to students for purchase of textbook and access card are shown below. For students that need a book and the access card choose option 1. For students that have a book but require the access card, option 2 is for you.**

## **1. Loose-leaf textbook + connect access card**

**Microbiology Fund (w//Connect Access)**

**Edition: 4th**

**ISBN: 9781266361067**

**Author: Cowan**

**Publisher: MCGRAW HILL CUSTOM**

## **2. Connect access card**

**Connect Online Access for Microbiology Fundamentals: A Clinical Approach**

**Edition: 4th**

**ISBN: 9781260786033**

**Author: Cowan**

**Publisher: McGraw-Hill**

Required Textbook: Your course is included in the Follett Access Program. You will receive an email regarding your textbook from Follett, the NFC bookstore. Through Follett Access, your textbook and materials are less costly and they are automatically in your D2L course on the first day of class. If you choose to opt out of this program, you will need to follow the process on the email you receive and you will be responsible for purchasing all required materials for this course. If you have any questions regarding this process, please contact support at <https://customersupportcenter.highered.follett.com/hc/en-us>.

For textbook questions, please contact [bookstore@nfc.edu](mailto:bookstore@nfc.edu)

Required Course Materials/Supplies: Access to a computer with high-speed internet

Minimum Technological Requirements and Skills: This class will require a **basic** understanding of Microsoft Word, Power-point, and Excel. In addition, internet usage will be required. NFC does a great job providing help to any student requiring additional skills with technology. **If this class is forced to go 100% online, students will need to take their remaining tests using a computer that has a built-in camera and capable of running our test security software.**

# Grading Policy and Assessment Methods

Course Grading/Student Performance Evaluation:

1. Three tests (approximately 30%). Test will consist of multiple choice, vocabulary, and written response. **One test can be missed. To make up for the missed test, your percent scored on your final will be used to calculate percent for the missed test (your final exam will be worth approximately 25% instead of 15%).**

Test schedule:

Test one, 6-5-24 in science room 108

Test two, 6-24-24 in science room 108

Test three, 7-8-24 in science room 108

2. Vocabulary quizzes (approximately 10%). **Students can miss 1 quiz without penalty.**
3. Labs (approximately 20%). Labs can be turned in any time during the semester. However, maximum score on late work is 60%. All lab quizzes for anatomy identification must be taken.
4. Online work (approximately 25%). Connect online quizzes/labs will accompany each chapter studied from the book. **Students can miss 1 online assignment without penalty.**
5. Final exam (approximately 15%). **Required and cumulative. Final exam: 7-17-2024 @ 2:30 PM in science room 108**

**Grades:** All grades are kept in a D2L gradebook. Using D2L students can access their grades anytime throughout the semester.

In D2L, grades are shown as a percent. Your percent can be converted to a letter grade using the scale below.

A = Greater than or equal to 90%

B = Greater than or equal to 80%, but less than 90%

C = Greater than or equal to 70% but less than 80%

D = Greater than or equal to 60% but less than 70%

F = Less than 60%

## Outcomes/Objectives

GENERAL EDUCATION PROGRAM LEARNING OUTCOMES

- 1. Communication Skills: Students will demonstrate competence and understanding in both oral and written expression.
- 2. Critical Thinking: Students will demonstrate mastery of discipline-specific problem-solving skills.
- 3. Diversity: Students will interpret and evaluate societal and ethical issues, problems and values specific to time and place.
- 4. Technology: Students will demonstrate competence in use of technology appropriate to course and/or circumstance.

## Course Level Student Learning Outcomes/Goals

1. Demonstrate competence of written communication in the form of a formal Lab Report.
2. Demonstrate a mastery of a broad set of Anatomy & Physiology knowledge by recognizing correct answers to questions on exams.
3. Answer multiple choice questions concerning the role of women in science.
4. Demonstrate mastery of interpretation of scientific data by successfully creating a graph from research data.

<u>Course Level SLO #</u>	<u>Gen Ed/Program Outcome #</u>	<u>Summative Assessments</u>
1.	1	Lab report
2.	2	Exam questions or lab
3.	3	Quiz-women in science
4.	4	Generate a digital lab

## Course Content and Schedule

Learn about the microbiome associated with your body. Understand taxonomy and how it is used to study microorganisms. Learn specific examples of disease-causing microorganisms belonging to each kingdom. Learn the scientific method by conducting an experiment.

Learn methods for simple and gram stains. Use the microscope to look at specific disease causing microorganisms.

Learn aseptic technique to culture bacteria on various media. Use biochemical tests to identify unknown bacteria.

Know the properties of atoms that make up the bulk of life. Learn how these building blocks interact to make the organic compounds (Carbohydrates, Proteins, Lipids, and Nucleic acids) associated with life. Understand the concept of universality with respect to these compounds.

Understand the cellular structure for prokaryotic and eukaryotic microorganisms; how are they the same, how do they differ? Understand that differences in cellular structure can be exploited by scientist in developing selectively toxic drugs. Also, learn what structure(s) microorganisms have that increase pathogenicity.

Learn metabolic pathways used by microbes and understand how differences in these pathways are fundamental in identification of specific microbes.

Understand the universal nature of DNA and how the information in DNA is used to specify different proteins. Several DNA and RNA viruses will be studied and used to highlight the properties of nucleic acids and proteins.

Control of microbial growth in the environment and within the body will be learned. The impact of antibiotics and antibiotic resistance will be covered.

Students will learn: 1. what factors make bacteria pathogenic, 2. portals of entry and exit, 3. modes of transmission, and the significance of Koch's postulates for identification of disease-causing pathogens. Methods used by Microbiologist to identify the cause of infection will be learned.

Students will learn about specific pathogens that affect the: Skin, nervous system, cardiovascular system, respiratory system, and GI tract.

Both innate and adaptive immunity will be learned. Disorders (hyper and hypo sensitivities) in the immune system will be reviewed.

#### **Early Alerts:**

**June 11<sup>th</sup> and 12<sup>th</sup>**

## **NFC Course Policy Statements**

I will communicate with the class using D2L news; please check the D2L News several times a week. Attendance is critical since most class periods will include a laboratory component or quiz.

Show up for class ready to work/learn. TAKE GOOD NOTES. Lectures and other resource material can be found on D2L. Print off lecture slides and put notes from the book or lecture onto these printed slides. Rule of thumb: 5-10 minutes in book/slide. Form a study group; working in a group can often help your preparation for the test.

Most of your test questions (70%) will be derived from these lecture slides; use them as your roadmap for learning. After reviewing the first test, convince yourself (or see me and I will convince you) that information to answer test questions can be found in your slides/notes,

online quizzes, vocabulary, or labs. Once you have convinced yourself of this, you can take responsibility for your success by learning this information for future tests.

If you feel I have made a mistake in grading your assignment, or posted the grade incorrectly, it is your responsibility to let me know. Students must have a dependable computer system and internet access for this class. Online quizzes have only one attempt, and a disconnection in service will cause that attempt to be final.

Approximately fifty percent of this class is non-test material that you should score well on if you are willing to work hard and get assignments in on time. Take advantage of these non-test points. Ask me about any concepts you are having problems with prior to the test.

## **NFC Information and Policy Statements**

### **Academic Honesty**

NFC is committed to providing a high-quality educational experience to all students, and students are expected to follow appropriate and honest academic practices. This information is available in the Academic Regulations section of the college catalog at [www.nfc.edu](http://www.nfc.edu). All cases of academic dishonesty will be reported to the Office of Academic Affairs.

Instructors use [www.turnitin.com](http://www.turnitin.com) to review papers and projects for improper citation and/or plagiarism by comparing each student's report against billions of internet pages, a repository of works submitted to Turnitin in the past, and thousands of academic sources. A comparison document called the *Similarity Report* details the areas of a student paper that may have been documented incorrectly or used improperly. **Refer to instructor's course policy statements for usage details.**

### **Attendance Policy**

Regular and consistent attendance facilitates student success. Absences beyond the equivalent of two weeks of class are considered to be excessive and thus may impact a student's course grade. Typically, two weeks of class would be described as follows:

- For a three-credit hour class that meets MW or TR: 4 class meetings (2 weeks).
- For a three-credit hour class that meets once a week for three hours: 2 class meetings (2 weeks).

Students are responsible for material covered during their absence. Refer to instructor makeup policy.

**If there is no verifiable participation within the first week of the term, a student will be dropped from the class for non-attendance.** This includes classes delivered in face-to-face, online, or hybrid format. See instructor policy.

### **Textbook Purchases**

All required course materials are listed in the Virtual Bookstore tab on NFC's homepage. Course materials purchased through Follett, NFC's only contracted vendor, can be charged against a student's financial aid

account. Course materials may also be purchased from any other source with the understanding that these non-Follett purchases cannot be charged against a student's financial aid account.

### **Used Book Purchases**

Students should check the Follett book list found in the Virtual Bookstore tab on NFC's homepage for correct titles and editions. Note: The ISBN listed in Follett may include both the required text and a required access code. When considering purchasing used books, students should be sure the purchase includes the ACCESS CODE in courses where required. If not, the access code must be purchased separately at an additional cost.

### **Students/Visitors: Where to Park on Campus**

If you have any questions about parking on campus, contact Campus Security at (850) 973-0280. Park in designated parking spaces only. Do not park on the grass or in undesignated areas. Faculty/Staff parking areas are to be used only by full- and part-time employees of the college. Faculty and staff parking spaces are lined in yellow and are clearly marked "STAFF". Students and visitors can park in any spaces that are lined in white. **NOTE: Some visitor parking spaces are lined in yellow with the word "Visitor" in the center. These are for visitors only. Students are not allowed to park in these spaces. Vehicles cannot be parked by backing into the space. Any vehicle that is illegally parked will be towed at the owner's expense. Refer to the college catalog or student handbook for all other parking regulations.**

**Enforcement:** If a vehicle is parked illegally anywhere on campus, it is subject to be towed at the owner's expense (\$85.00+). An illegally parked vehicle will be given a **WARNING on the FIRST OFFENSE**. **There will be no second warning.** Illegally parked vehicles will be **TOWED ON THE SECOND OFFENSE**. Signs will be displayed near parking areas with the name and address of the company to contact if the vehicle is towed.

The company that tows the vehicle is an independent company contracted by North Florida College. The College has no authority to negotiate towing fees and is not in any way responsible for damage or liability to the vehicle or its contents. The company that provides the towing service is:

Jimmie's Firestone  
6025 South SR 53  
Madison, FL 32340  
(850) 973-8546

### **Campus Security**

The administration of NFC works diligently to make the campus as safe as possible. A few of the procedures in place include the use of security officers, the placement of security lights at strategic locations, and the locking of buildings when not in use. Students should always be alert and use normal precautionary measures at all times. Campus crime statistics are documented annually and are available in the college catalog. Campus security can be contacted at 850-973-0280 from 7:30 a.m. until 11:30 p.m. for assistance while on campus with non-emergency security concerns. All emergency incidents should be reported directly to 911.

### **Library Services**

The Marshall Hamilton Library, located in Building 4 at NFC, is open during the following hours (hours are subject to change):

## On Campus:

Fall/Spring Term

Monday – Thursday 8:00 a.m. – 7: 00 p.m.

Fridays 8:00 a.m. – 4:30 p.m.

Summer Term

Monday – Thursday 8:00 a.m. – 4:30 p.m.

Resources and staff are available in the Library to support student learning in the classroom. Students are encouraged to visit our website and use the online resources. Students may make an appointment to receive help or use computers during the posted hours. Librarians are on duty to help with questions and research strategies. To gain access to the Library's extensive collection of electronic resources such as eBooks and academic databases with full-text articles, students will use the Single Sign-on through the MyNFC portal or Library Website. Students should contact the library at [library@nfc.edu](mailto:library@nfc.edu) or call (850) 973-1624 if they are having login issues. Online library resources are available to students 24 hours a day through the Library's website, <https://www.nfc.edu/learning-resources/>. Wireless Internet is also accessible in the Library and on the patio after hours. Specific policies and regulations applicable to the Library are available in the Library or by visiting the Library's website.

## Academic Success Center

The Academic Success Center (ASC) exists to provide all NFC students, regardless of academic proficiency, the help and support necessary to ensure successful completion of studies and programs. Services include one-on-one peer and professional tutoring assistance, online tutoring, organized group study sessions, workshops, study skills training, academic coaching, web resources, and more. The ASC takes pride in working closely with faculty and staff to develop resources and to support the various academic programs offered at NFC.

**Walk-in and by appointment services:** Students may visit the ASC (Bldg. 4) for in-person services or make an appointment to receive in-person or virtual academic support services during the posted hours:

- **Workshops, organized group study sessions, and professional tutoring:** See the ASC calendars and schedules on NFC's website for specific dates, times, and delivery methods. For additional information visit <https://guides.nfc.edu/asc>.

### Tutor.com Online Tutoring

Online tutoring is available to NFC students 24 hours a day, 7 days a week, through Tutor.com.

Tutor.com offers 1-to-1 tutoring available on demand in 250+ subjects, 24/7 Anytime, Anywhere.

**For more information about accessing the Tutor.com online tutoring service, see the ASC webpage or contact Elizabeth Gonzales at [gonzalese@nfc.edu](mailto:gonzalese@nfc.edu) or (850) 973-1719 and/or Brianna Kinsey at [kinseyb@nfc.edu](mailto:kinseyb@nfc.edu) or (850) 973-9458.**

For **any** additional information regarding services provided by the **Academic Success Center**, please contact any of the following:

- Elizabeth Gonzales, Academic Success Center Coordinator (850) 973-1719 / [gonzalese@nfc.edu](mailto:gonzalese@nfc.edu)
- Academic Success Center (ASC) (850) 973-1624 / [asc@nfc.edu](mailto:asc@nfc.edu)

## Americans with Disabilities Act



NFC is dedicated to the concept of equal opportunity. Students desiring modifications in class or on campus due to a disability may choose to inform the instructor at the beginning of the semester or contact the Disability Resource Center directly. Accommodations and modifications will be made after the student registers with the Disability Resource Center and provides appropriate documentation of disability. After the documentation is evaluated, the instructor may be involved in providing accommodations to equalize the student's educational experience. Students may call (850) 973-1683 (V) or (850) 973-1611 (TTY) for an appointment or additional information.

### **Technology Access**

All NFC online learning tools are available on the MyNFC portal. To access the portal, students should click the MyNFC link at the top of the NFC website (<http://www.nfc.edu>) or type the following URL into the Internet address bar: <https://my.nfc.edu>. **When accessing the portal for the first time, students should click the "First Time User" link and follow the instructions to set up the account.**

Each NFC student is provided an email account through GoMail. The student's GoMail account is the official email address used by faculty and staff for communication with the student. A student can access his/her GoMail account via the MyNFC portal. Students are expected to check their GoMail accounts regularly.

Desire2Learn (D2L) is the learning management system that houses all online and supplemented face-2-face courses. Students can log in to an online or supplemented course by accessing the MyNFC portal. Students will then see their course(s) listed under the "My Courses" widget on the D2L homepage. Click the name of the course to begin.

### **Student Ombudsman**

The Student Ombudsman provides confidential, informal, and neutral assistance to students seeking to resolve disputes or address issues of importance. The Student Ombudsman does **not** serve as a student *advocate*, but rather serves as a guide to assist students in the navigation of College organizational structure and in understanding of policies and procedures. David Paulk is the current Student Ombudsman. He can be reached at (850) 973-9418 or [paulkd@nfc.edu](mailto:paulkd@nfc.edu).

### **Equal Opportunity Statement**

North Florida College is dedicated to the concept of equal opportunity and access to all programs and activities. In accordance with federal and state laws, and College policy, NFC does not discriminate in any of its policies, procedures or practices on the basis of race, ethnicity, color, religion, sex, national origin, gender, age, disability, pregnancy, marital status, genetic information or any other characteristic protected by law. Inquiries or complaints regarding equity issues of any nature may be directed to Denise Bell, Equity Coordinator, 325 NW Turner Davis Drive, Madison, FL 32340, Telephone (850) 973-9481 or email [equity@nfc.edu](mailto:equity@nfc.edu).

### **Student Rights**

As members of the College community, students have certain rights that include the following.

Students have the

- Right to a quality education;
- Right to freedom of expression;
- Right to hold public forums;
- Right to peacefully assemble;
- Right to a fair and impartial hearing;
- Right to participate in Student Government;

- Right to be a member in authorized student organizations;
- Right to appeal College decisions through established grievance procedures;
- Right of personal respect and freedom from humiliation and control;
- Right to make the best use of the student's time and talents and to work toward the goal which brought the student to the College; and
- Right to ask about and recommend improvements in policies that affect the welfare of students.

### **Student Responsibilities**

As members of the College community, students have certain responsibilities that include the following.

Students are

- Expected to assume responsibility for knowing the rules, regulations and policies of the College;
- Expected to meet the course and graduation requirements of the students' program of study;
- Expected to keep college records current with up-to-date addresses and other information;
- Expected to meet with an academic advisor at least once each term;
- Expected to comply with College rules, regulations and policies; and
- Expected to behave in a manner which demonstrates respect for others and self.

### **Student Rights Under the Family Educational Rights and Privacy Act (FERPA)**

FERPA affords students certain rights with respect to their educational records.

1. The right to inspect and review the student's educational records.
2. The right to request the amendment of the student's educational records to ensure that they are not inaccurate, misleading, or otherwise in violation of the student's privacy or other rights.
3. The right to consent to disclosure of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosures without consent.
4. The right to file with the U.S. Department of Education a complaint concerning alleged failures by North Florida College to comply with the requirements of FERPA. Please write to: U.S. Department of Education, 600 Independence Ave. S.W., Washington, D.C. 20203.
5. The right to obtain a copy of North Florida College's student record policy from the Office of the Registrar, North Florida College, 325 NW Turner Davis Drive, Madison, Florida 32340.

### **Vulnerable Persons Act**

All faculty and staff of North Florida College are required by law to report any type of abuse of minors that they witness or become aware of through written or verbal communication, regardless of the time that has passed since the abuse occurred. Students are advised that any information, written or verbal, communicated in this class, or to the instructor in any way, in regards to any willful act or threatened act that results in any physical, mental, or sexual abuse, injury, or harm that causes or is likely to cause harm to the physical, mental, or emotional health of another to be significantly impaired is subject to disclosure as required per Florida State Statutes.

