

Course Information

- Course Code: BIO 204 DS21
- Synonym Number: 94562
- Credits: 4.0
- Semester: Spring 2016
- Prerequisite: BIO 111/BIO 230
- Format: Online via CANVAS
- Duration: 1/18 – 5/6/16
- Refund Date: 2/3/16
- Withdrawal Date: 4/10/16
- Census Date: 2/8/16



Contact Information

Office Hours Online by Appointment using Big Blue Button in Canvas

Cell Phone 970-309-7051

E-mail gcornwall@coloradomtn.edu
However, let's keep all our course related communications within canvas

Response Time

During the week, I will do my best to respond to you within a few hours, however on weekends, you may have to wait up to 48 hours.



Course Description

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification, and identification. The laboratory experience includes culturing, identifying, and controlling microorganisms with an emphasis on their role in infectious disease.

+ Biography

George (Dr.G) teaches, a broad array of Biology courses (from Ecology to Molecular), in live, online and hybrid formats. Before she moved to the mountains, where she truly belongs, she held a position with Metropolitan State College, in Denver; and taught a variety of courses with the University of Colorado, after earning her Ph.D. there in 2000.

George is passionate about the technologies available in teaching & learning. She feels there are so many cool tools to help us engage with our students, and help our students engage with each other to improve their learning...this is a very exciting time!

In the summers, She spends as much time as possible on her raft, floating the rivers of the Southwest. And during the winter, she likes to float around in the fresh powder, teaching her ski school clients, at Aspen Skiing Company.



READ THIS!
It Includes
Some Very
Important
Information
Before we Get
Started

+ Course Access & Orientation Information:

Canvas by Instructure is the online learning management system (LMS) used by Colorado Mountain College. You access Canvas via your web browser, i.e.: Mozilla/Firefox, Internet Explorer, Opera, etc. Students, faculty, and staff members use the CMC Canvas site to access course announcements, documents, research links and library resources, to receive and deliver completed assignments, to take tests, and to communicate with

each other via email, discussion boards and chat. For instructions on How to Access your Canvas Account, Canvas How To's, and who to contact for all your Canvas questions and support needs, please visit www.coloradomtn.edu/web/departments/faq-for-students.

Visit CMC's student orientation page at: www.mycampusuccess.com

Clicking on the "Online

Learning" section will take you to an overview of Online Learning and an introduction to Canvas.

Computer Access:

Hybrid/Online courses require frequent computer use and access to the Internet. You will NEED to have a personal computer, consistent High-speed Internet access, and a digital camera for use in this course.



IDEA OBJECTIVES

1. Gaining factual knowledge (terminology, classifications, methods, trends).
2. Learning fundamental principles, generalizations, or theories.
3. Learning to apply course material (to improve thinking, problem solving, and decisions).
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course.
5. Learning how to find and use resources for answering questions or solving problems.

Order
Your Lab
Kit Right
Away!

STUDENT LEARNING OUTCOMES, COMPETENCIES & SKILLS

1. Understand the terminology and principles of basic chemistry, cell structure and function, bio-energetics, cell reproduction and genetics, microbial taxonomy, and Darwinian evolution.
2. Understand microbial cell biology, and genetics.
3. Demonstrate technical laboratory skills, such as microscopy, aseptic techniques, culturing and isolation, and media and material preparation and sterilization.
4. Demonstrate cognitive laboratory skills, such as collection and analysis of data, identification of microbes, and communication of results.
5. Understand terminology and principles immunology, epidemiology, and virology.
6. Integrate themes by examining microbial evolution, diversity and disease.

+ Required Course Materials:

TEXT:

Microbiology 4e Connect Plus Access Card (includes digital text); Cowan; McGraw Hill
ISBN: 9780077735104 or 088733356083
(you need not purchase this prior to

the course start, unless you financial aid to pay for it directly)

We will be using the digital version of the text, which is included with Connect Plus access (~\$85). You can access it from within Canvas as soon as the course is launched. If you really feel the need for a hard copy of the text after trying out the digital version, it is available loose leaf, at an extreme discount through the Connect Plus site.

LAB PAQ:

MUST be ordered before the start of the course MBK Microbiology LabPaq (~\$300) – order directly from LabPaq. Access to a 600x Microscope & an Oil Immersion Lens (NOT INCLUDED in the labpaq) is required, may be purchased for ~\$200.



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Microscopes are NOT available for loan from your local campus. Please DO NOT call your local campus to inquire about borrowing one.



Order your LabPac and Microscope online at:
www.holscience.com



Login: **C000061**
Password: **labpac**
Select Microbiology.

OTHER ESSENTIALS:

You will need to have a computer, regular access to High-speed Internet and access to a digital camera (the one on your phone is fine). You will also need the most recent version of quicktime (or iTunes), adobe reader, flash, and shockwave installed on your computer, you can download these FREE products here:
<http://www.adobe.com/downloads/>

**It is Strongly Advised
that you Purchase
your Book through
the Direct Link to
Our Course in
Canvas...You Need
Not Order Your Text
Until The Course
Begins the Course**

ORDERING BOOKS

You can access it from within Canvas as soon as the course is launched. If you really feel the need for a hard copy of the text after trying out the digital version, it is available loose leaf, at an extreme discount through the Connect Plus site. Students wishing to use their Financial Aid to purchase their textbooks from the CMC Online Bookstore (Follett) may be set up

BOOKSTORE

If you have online bookstore questions, email
customerservice@fvb.follett.com or call
800-621-4088.

with a *CMC Flex Pay* account . Contact your local CMC Accounts Manager for instructions and your specific username and password information. If you are not close to a CMC site, contact CMC Online Learning at 970-947-8341 or
virtual@coloradomtn.edu.

If you have online bookstore questions, email
customerservice@fvb.follett.com or call 800-621-4088.



How will I be Graded in This Course?

+ Evaluation Methods & Class Management:

FORMATIVE ASSESSMENTS (AKA ASSIGNMENTS & LABS)

- ✓ SmartBook Study Tool Assignments
- ✓ Exploration Assignments (to include Quizzes, Concept Maps, Case Studies or Animated Learning modules)
- ✓ Lab Activities and Participation

These are “low stakes” tools, which are designed to lead you into success, by helping you learn the material, as well as providing you immediate feedback on your understanding of the material, so that you can adjust your study habits, or seek help before the “higher stakes” Exams (Summative Assessments).

SUMMATIVE ASSESSMENTS (AKA EXAMS):

There will be a total of two exams, a mid-term and a final. Each will be held online in Connect, at the conclusion of the respective module of material (as indicated on proposed schedule). You will also be working on a final project/presentation throughout the course, that you will turn in and present at the close of the course

POINT BREAKDOWN:

Exams x 3	400 pts
SmartBook x 13	130 pts
Exploration x 12	120 pts
Labs Etc.	200 pts
Final Project	100 pts
POINT TOTAL	950 pts

GRADES:

NO letter grades will be assigned to the individual exams, quizzes, assignments, and discussions. Your final grade will be based upon a total percentage of possible points (1040). I will guarantee the following scale based on point totals: A to A- = 90-100%; B+ to B- = 80-89%; C+ to C- = 70-79%; D+ to D- = 60-69%; F = less than 60%.

Your lab score it is considered a vital part of the course. Consequently, to receive a passing grade in the course, you **MUST** earn at lease a C (75%) on the lab component of the course. In other words, if you have a failing lab average, you cannot pass the course

You MUST earn at lease a C (75%) on the labs

Proposed Schedule:

WEEK	DATE	LECTURE TOPIC & ASSIGNMENTS	READING
1	Jan 18 th	Main Themes of Microbiology (an overview) The Chemistry of Biology (a review) LAB: Observing Bacteria & Blood	Chapter 1 Chapter 2
2	Jan 25 th	Tools of the Laboratory LAB: Bacterial Morphology	Chapter 3
3	Feb 1 st	Prokaryotic Profiles: Bacteria & Archaea WIKI: Infections of Skin & Eyes (Ch18)	Chapter 4 Chapter 18
4	Feb 8 th	Eukaryotic Cells & Microorganisms LAB: Aseptic Technique & Culturing	Chapter 5
5	Feb 16 th	An Introduction to Viruses WIKI: Infections of Nervous System (Ch19) EXAM I (Ch3-6)	Chapter 6 Chapter 19
6	Feb 22 nd	Microbial Nutrition, Ecology & Growth LAB: Isolation of Colonies	Chapter 7 (skip Chapter 8)
7	Feb 29 th	Microbial Genetics WIKI: Cardiovascular & Lymphatic Infection (Ch20)	Chapter 9 (skip Chapter 10) Chapter 20
8	Mar 7 th	Physical & Chemical Control of Microbes LAB: Differential Staining EXAM II (Ch7,9,11)	Chapter 11
9	Mar 14 th	SPRING BREAK	
10	Mar 21 st	Drugs, Microbes, Hosts – Elements of Chemotherapy WIKI: Respiratory Infections (Ch21)	Chapter 12 Chapter 21
11	Apr 4 th	Microbe Human Interactions: Infection & Disease LAB: Methyl Red Voges-Proskauer Test	Chapter 13
12	April 11 th	Host Defenses I: Overview & Non-specific WIKI: GI infections (Ch22)	Chapter 14 Chapter 22
13	April 18 th	Host Defenses II: Specific Immunity & Immunization LAB: Motility Testing EXAM III (Ch12-15)	Chapter 15
14	April 25 th	Disorders in Immunity WIKI: Genitourinary Infections (Ch23)	Chapter 16 Chapter 23
15	May 2 nd	Diagnosing Infections LAB: Antibiotic Sensitivity EXAM IV (Ch16, 17)	Chapter 17

+ Course Policies:

GRADING SYSTEMS AND OPTIONS:

Information about grading is available in the Colorado Mountain College catalog. Grades will be posted to <https://webadvisor.coloradomtn.edu/> (WebAdvisor) by Thursday following the last day of classes at the end of each semester. Additional information is available at: http://catalog.coloradomtn.edu/content.php?catoid=7&navoid=862#Grading_System_and_Options

COURSE EXPECTATIONS:

Because this is a 4 credit online science course, you should expect to spend AT LEAST 16 hours per week on your studies and labs to be successful (during a regular 16 week semester). This time includes time you will spend viewing vodcast lectures & taking notes, as well as performing labs, assigned learning activities, engaging with other students on Wiki's or discussion forums, and studying for exams. You will be expected to be online, and engaged in the course on an almost daily basis, and be prepared to respond to communications within 48 hours. You cannot leave all your coursework until the weekend, and expect to be successful in the course.

ACADEMIC MISCONDUCT POLICY

A student judged to have engaged in academic misconduct as defined in the "Academic Policies and Requirements" section of the Colorado Mountain College Student Handbook will, at a minimum, receive a "zero" for the work in question. The student may also be removed

This is a 4 Credit Course:
You should expect to spend AT LEAST 16 hours per week on your studies and labs to be successful

from the class, resulting in a failing grade. All student course material may be submitted to Turnitin (or another anti-plagiarism program) at the instructor's discretion. "Academic Expectations," the "Student Code of Conduct and Judicial Process" and more information about academic misconduct can be found in the Student Handbook, online version at:

<http://catalog.coloradomtn.edu/content.php?catoid=7&navoid=841>

ATTENDANCE & NO-SHOW REPORTING

Attendance and early engagement are important elements for your success in this course. All students who do not attend the first class(es) or meet early attendance requirements must be reported by the instructor to the Registrar's Office. Financial aid students or students receiving Veteran's benefits who do not attend the first class(es) or meet early attendance requirements will be dropped from the course and may not receive financial assistance (http://coloradomtn.edu/financial_aid).

DROP/WITHDRAW POLICY

The last date to drop/withdraw from this course is indicated on the course information page. Students wishing to withdraw from this course must **initiate** the course withdrawal/drop process at the site Registration Office.

STUDENT EMAIL:

All CMC students enrolled in a credit-based class (0.5 hour credit class or more) will be assigned a CMC student email address through Google mail (Gmail). Please allow at least 48 hours after you register for this account to be activated. For more information on your CMC student email account, please visit the Student page of the MyCMC Portal: mycmc.coloradomtn.edu.

SMARTHINKING ONLINE TUTORING:

Help when you need it: 24 hours a day! Smarthinking is an online tutoring service provided by Colorado Mountain College. Depending on the courses in which you are enrolled, you may find Smarthinking's supplemental help an important part of your success. Academic areas covered by their expert support include: Math, Introductory Anatomy & Physiology, Biology, Chemistry, Economics, Finance, Accounting, Statistics, Spanish, Writing, Computers and Technology, and Reading. All students registered for a credit course will have a Smarthinking account created. Your username will be your CMC WebAdvisor ID. For most students, this is your first initial followed by last name. It is the same as the first portion of your CMC email address (the part before the @). Your password will be "cmc" plus the last six digits of your Social Security number (for example "cmc123456").

You may access your account at: <http://services.smarthinking.com/>. If you don't know your ID or are unable to login, email dyarrow@coloradomtn.edu. While this service is provided at no charge, Colorado Mountain College reserves the right to cap the number of free tutoring hours provided to a student.

Help When
You Need
It!



DISABILITY SERVICES

If you have a disability protected by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act and feel you may need classroom accommodations based on the impact of your disability, please contact the Disability Services Coordinator on your campus.

- ✓ Aspen, Carbondale, Glenwood Springs (including Spring Valley), and Rifle: Dr. Anne Moll at 970-947-8256
- ✓ Breckenridge & Dillon: Karen Mitchell at 970-468-5989, extension 2821
- ✓ Leadville, and Chaffee County: Janis Ohmstede at 719-486-4200. 719-8419 ext. 2205 Chaffee County
- ✓ Edwards: Sue O'Connor at 970-569-2959
- ✓ Rifle : Libby Neal at 970-625-6959.
- ✓ Steamboat Springs and Online-Only: Deb Farmer at 970-870-4450

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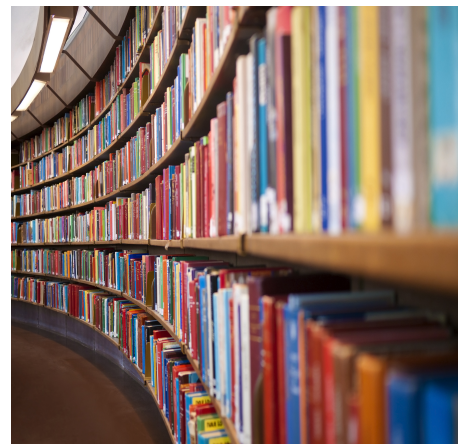
VIRTUAL LIBRARY

The Virtual Library has its doors open 24/7, providing access to thousands of online journals and newspapers, e-books and art images, downloadable videos and audiobooks, career resources and practice tests.

You can access CMC's Virtual Library at <http://library.coloradomtn.edu/> or use the CMC Libraries link from the Canvas course menu to access the website. The link will pass authentication credentials that will allow you to use online library collections. It will also take you directly to the libraries' home page.

Library Tutorials: The library offers a variety of online video tutorials that will help you with your research projects. <http://library.coloradomtn.edu/modules>.

Ask a Librarian: If you need assistance with your research project, you can ask a librarian online. Select AskAcademic chat box on the libraries' home page and type in your question. This service is available approximately 20 hours a day, 7 days a week. You can also email reference@coloradomtn.edu or call 800-621-8559, extension 2926.



**USE YOUR
RESOURCES**

