



I. Course and Instructor: BIO115 – Human Genetics, Dr. Natasha Williams

Format: WEB

Instructor Information:

Name: Natasha Williams

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Office Hours: contact any time by e-mail

Course Information:

Course Title: Human Genetics

Course Code: BIO-115-DS21

Semester: Spring 2013

Meeting Times and Days: N/A

Class Location: Online

Start Date: 1/14

Refund Date: 1/30

Synonym Number: 71277

Credits: 3 CR

Prerequisite: college level reading

End Date: 5/3

Withdraw Date: 4/7

Orientation Note: Students should get access to their Canvas accounts prior to the start of the class. Check all personal information; make sure that you have your current working e-mail address listed on Canvas. E-mail messages will be primary means of communication for this course. If you have any questions call me at (970) 963-4073 or send a message to: nwilliams@coloradomtn.edu.

Computer Access:

Online courses require frequent computer use and access to the internet. It is highly recommended that students have a personal computer for use in online courses. If you need to use a computer at your local Colorado Mountain College location, you will be able to do so during open lab hours. Please check with your local site for times.

If you have general questions about online learning, please contact **Colorado Mountain College Online Learning** at 800-621-8559, extension 8341 or virtual@coloradomtn.edu.

No-show reporting and financial aid: If you have not completed your first week's assignment (see Course Schedule table) in Canvas by **Tuesday, January 22nd**, you will be reported as a no-show and dropped from the course. The resultant loss in credit hours may cause a reduction and/or cancellation of your financial aid award. Neither financial aid awards nor class reinstatement can occur after this point without significant documented extenuating circumstances. If you have questions or concerns about this please contact your campus financial aid specialist.
(www.coloradomtn.edu/web/departments/financial_aid)

II. Course Description:

Focuses on a study of the inheritance of human traits. It is a non-mathematical study for the non-science major. Includes Mendelian, non-Mendelian, sex-linked, blood type traits, inherited diseases and ethics.

III. Student Learning Outcomes, Competencies, and Skills:

- I. Understand basic concepts of human genetics, cells, and human development.
- II. Be able to apply Mendelian laws of genetics to human characteristics.
- III. Understand the role of DNA structure, replication, and mutation in human inheritance.
- IV. Demonstrate an understanding of the role of genetics in human population and environmental issues.
- V. Develop an understanding of DNA technology as it applies to the human experience.

IV. IDEA Student Ratings of Instruction:

1. Gaining factual knowledge (terminology, classifications, methods, trends)
2. Learning fundamental principles, generalizations, or theories
3. Learning to apply course material

V. Methods and Class Management:

The course work will consist of 14 weekly assignments, one research paper and a final exam. Weekly assignments will include the following:

- reading the chapters of the textbook
- completing the chapter quizzes
- participating in the discussion board activities.

The detailed schedule of the assignments is presented in the Course Schedule table.

Letter Grade Scale (%):

A	(94-100)	B-	(77-79.9)	D+	(65-66.9)
A-	(90-93.9)	C+	(75-76.9)	D	(60-64.9)
B+	(85-89.9)	C	(70-74.9)	D-	(55-59.9)
B	(80-84.9)	C-	(67-69.9)	F	(below 55)

Assignments	% to Final Grade	Description
Quizzes* (15 quizzes)	43%	One Syllabus quiz (contributes 1% to the grade), 14 Chapter Quizzes (each quiz contains 25 questions and contributes 3% to the grade)
Discussion Board ** (Introductions, 11 Chapter Discussions, and Wrap-up Discussion)	37%	Introductions and Wrap-up Discussion (each contributes 2% to the grade) Each Chapter Discussion includes a discussion board entry and two peer responses (each discussion contributes 3% to the grade)
Research Paper***	10%	Research on human genetic diseases
Final Exam****	10%	Textbook Chapters (150 questions)
Total Max:	100%	See letter grade scale on page 2 of the Syllabus

***Quizzes:**

The syllabus quiz will be posted on Canvas at the beginning of the course and should be completed during the first week of class; two attempts are allowed for this quiz. The quiz will become unavailable at the end of the second week.

Chapter quizzes will be posted on Canvas during the week when they are assigned, and should be completed before the deadline (see the deadlines for each quiz in the Course Schedule). Each quiz will consist of 25 multiple choice questions and will be worth 3% of your final grade. These are open-book quizzes and have a 1 hour and 30 minutes time limit (for every minute of time over draft one point will be subtracted from your quiz score); every quiz must be completed the first time it is launched (multiple attempts are not allowed). Chapter quizzes **completed after the deadline will receive only half of the earned credit points.**

****Discussion Board:**

The first discussion is “Introductions”, and requires an entry and two peer responses. Total of 11 Chapter Discussions will be created for the chapters of the textbook where you will see the detailed instructions on how to participate in the discussion and a list of questions. Each student should post an answer to the chosen question before the entry deadline, and two comments on other students’ entries before the peer responses deadline (see the deadlines for each discussion in the Course Schedule). Discussion board activities will be evaluated according to the “Grading Rubric”. The last, Wrap-up discussion, requires an entry and two peer responses. **Discussion board activities completed after the deadline will NOT receive any credit.**

*****Research Paper:**

A list of topics on human inherited genetic diseases will become available on Canvas after the 8th week of class. At this point you can choose a topic and start your research if you wish. You can find all the details in the following documents on Canvas: “Research Paper Guidelines” and “Research Paper Grading Rubric”.

******Final Exam:**

The final exam will be posted on Canvas during the last week of the course and will consist of 150 multiple choice questions. All the questions will come from the previous 14 chapter quizzes. The exam will have a time limit (for every minute of time over draft one point will be subtracted from your final exam score) and only one attempt is allowed. **The final exam is mandatory (you cannot receive a grade without completing it) and should be completed before the end of the course** (see the deadline in the Course Schedule).

Course Schedule

Week	Start Date (Tu)	Lecture Topic (Textbook Chapters)	Assignments	Assign-t Due Date (Su/Mon)
Week 1	1/15	Ch. 1. Overview of Genetics	Introductions Syllabus Quiz Quiz 1 (Chapter 1 quiz) Peer responses to Introductions	1/20 1/20 1/20 1/21
Week 2	1/22	Ch. 2. Cells	Quiz 2 Discussion entry Chapters 1-2 Peer responses	1/27 1/27 1/28
Week 3	1/29	Ch. 3. Meiosis and Development	Quiz 3 Discussion entry Chapter 3 Peer responses	2/3 2/3 2/4
Week 4	2/5	Ch. 4. Single-Gene Inheritance	Quiz 4 Discussion entry Chapter 4 Peer responses	2/10 2/10 2/11
Week 5	2/12	Ch. 5. Beyond Mendel's Laws	Quiz 5 Discussion entry Chapter 5 Peer responses	2/17 2/17 2/18
Week 6	2/19	Ch. 6. Matters of Sex	Quiz 6 Discussion entry Chapter 6 Peer responses	2/24 2/24 2/25
Week 7	2/26	Ch. 7. Multifactorial Traits Ch. 8. Genetics of Behavior	Quiz 7-8 Discussion entry Chapters 7-8 Peer responses	3/3 3/3 3/4
Week 8	3/5	Ch. 9. DNA Structure and Replication	Quiz 9 Discussion entry Chapter 9 Peer responses	3/10 3/10 3/11
Break	3/12	Spring Break Research topics posted Extra credit assignments posted	No assignments (Start your research if you wish)	
Week 9	3/19	Ch. 10. Gene Action: From DNA to protein	Quiz 10 Discussion entry Chapter 10 Peer responses	3/24 3/24 3/25
Week 10	3/26	Ch. 11. Gene Expression and Epigenetics	Quiz 11 Discussion entry Chapter 11 Peer responses	3/31 3/31 4/1
Week 11	4/2	Ch. 12. Gene Mutation	Quiz 12 Discussion entry Chapter 12 Peer responses	4/7 4/7 4/8
Week 12	4/9	Ch. 13. Chromosomes	Quiz 13 Discussion entry Chapter 13 Peer responses	4/14 4/14 4/15
Week 13	4/16	Ch. 20. Genetic Testing and Treatment Work on research paper	Quiz 20 No Discussion	4/21
Week 14	4/23	Ch. 21. Reproductive Technologies Work on research paper	Quiz 21 Wrap-up Discussion Peer responses	4/28 4/28 4/29
Week 15	4/30	Research Paper Due Final Exam Extra credit assignments due (optional)	End of Class	5/3

NOTICE:

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 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: www.coloradomtn.edu/File/student_handbook.pdf.

Students are responsible for course materials from assigned text(s) and reading, lectures, labs, and other assignments as required.

The instructor may alter any, or all, of this syllabus during the semester as the learning environment requires. Students will be notified of changes in the Canvas course shell.

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.

- Edwards and Steamboat Springs: Deb Farmer at 970-870-4450
- Aspen, Carbondale, Glenwood Springs (including Spring Valley), and Rifle: Dr. Anne Moll at 970-947-8256
- Breckenridge, Dillon, Leadville, and Chaffee County: Sandi Conner at 719-486-4200

Students wishing to withdraw from this course must INITIATE the course withdrawal/drop process at the site Registration Office.

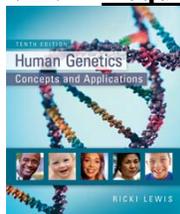
This class could be cancelled one week prior to the census date if a sufficient number of students are not enrolled by that date.

VI. **Grading System & Options:**

Information about grading is available in the Colorado Mountain College catalog. You will receive a grade report for current semester courses at the end of each term. This grade report is mailed to your permanent mailing address. Reports are mailed approximately two weeks after the end of the academic term. Additional information is available at:

http://catalog.coloradomtn.edu/content.php?catoid=3&navoid=620#Grading_System_and_Options_

VII. Required Course Materials



Human Genetics: Concepts and Applications, 10th edition, by Ricki Lewis, 2012, McGraw Hill. ISBN: **978-0073525303** (paperback).

ORDERING BOOKS

Colorado Mountain College has chosen to partner with Follett Virtual Bookstores to operate textbook services. You will find the official textbook list at www.coloradomtn.bkstr.com. If you ever have any online bookstore questions, you can email coloradomtn@fvb.follett.com or call 800-621-4088.

Students can sell back books anytime online or in-person at Follett's CMC buyback events. Sign up for the online store's email list at www.coloradomtn.bkstr.com/email for more information on future buyback dates/times and to receive other important messages from Follett.

Ordering Textbooks with Financial Aid:

Students wishing to use their Financial Aid to purchase their textbooks from the Colorado Mountain College Online Bookstore (Follett) may be set up 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.

VIII. Other Information:

Canvas

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, 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.

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.

Virtual Library Information

<http://library.coloradomtn.edu/content.php?pid=349163&sid=2891178>

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

If you need help with the Virtual Library, email reference@coloradomtn.edu or call us at 800-621-8559, extension 2926.

Colorado Mountain College Online Learning

Information is available at: www.coloradomtn.edu/online_learning/.