

BIOL 3721 - Genetics

Summer 2026 Syllabus, Section 01, CRN 30014,

Credit hours: 3

Instructor

David Asch

Professional Qualifications:

Professional Qualifications: Ph.D University of Kansas Medical Center

M.S. Creighton University

B.S. University of Nebraska-Lincoln

Chairperson

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Communication Expectations:

: I will try and respond to emails within 24 hours. Evening e mails will be answered the next day.

Course Description

3721. Genetics. Genetic material, reproductive cycles, sex determination, mitosis, meiosis, mendelism, probability linkage, genes in populations, mutation, evolution. Prereq.: BIOL 2601 or BIOL 2603. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Brooker Genetics 8th ed.		

Required CONNECT Subscription: This class is a "First Day Ready Class". You have paid for your CONNECT subscription and e-book access to the recommended text already. You may purchase a "loose-leaf" copy of the book if you want. This is extra. I will be giving homework on CONNECT throughout the semester.

We utilize a course management system called "Blackboard" for this class. You have been 'auto-registered' for this class on Blackboard. You can access Blackboard from the "Penguin Portal". Just click login. Blackboard is free. I will not E-mail course materiel. Notes from lectures and grades will be posted on Blackboard. Any problems with Blackboard call the Tech Desk ext. 1595.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Tentative Schedule

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Mon	5/11	Chapter 1	Syllabus and Class Intro Overview of Genetics	
Wed	5/13	Chapter 1 Chapter 2	Overview of Genetics Chromosome trasmission during cell division	
Fri	5/15	Chapter 2	Chromosome trasmission during cell division (Online)	
Mon	5/18	Chapter 2 Chapter 3	Chromosome trasmission during cell division Mendel Principles of Heredity	

Wed	5/20	Chapter 3 Chapter 4	Mendel's Principles of Heredity Extensions to Mendel
Fri	5/22	Chapter 4	Extensions to Mendel (Online)
Mon	5/25		Holiday No class
Wed	5/27	Chapter 4	Extensions to Mendel
Fri	5/29	Chapter 5	Non Mendelian Inheritance Exam I
Mon	6/1	Chapter 6	Genetic Linkage and Mapping
Wed	6/3	Chapter 7	Gene transfer and mapping in bacteria
Fri	6/5	Chapter 8	Variation in chromosome structure and number (Online)
Mon	6/8	Chapter 9	Molecular Structure of DNA and RNA Exam II
Wed	6/10	Chapter 10	Chromosome organization
Fri	6/12	Chapter 11	DNA Replication (Online)
Mon	6/15	Chapter 12	Transcription RNA modification and translation Exam III
Wed	6/17	Chapter 19	Gene mutation DNA repair
Fri	6/19	Chapter 21	Molecular Technologies (Online)
Mon	6/22	Chapter 23	Genomics
Wed	6/24		Exam IV

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.