Georgia Tech Biological Sciences

BIOS 2600 A
GENETICS
FALL 2026

SYLLABUS

Class description: Genetics - 86552 - BIOS 2600 - A is TR 9:30-10:45 Aug 25, 2026 - Dec 17, 2026 in the Clough UG Learning Commons 152. BIOS 2600 is a 3-credit class. Prerequisites: BIOL 1510 or BIOL 1511 or ((BIOS 1107 or BIOS 1207) and (BIOS 1107L or BIOS 1207L)).

Instructors: Dr. Mirjana M. Brockett. Office hours: TBA.

Learning Objectives: From the Genetics Society of America; genetics-gsa.org/education/genetics-learning-framework: By the end of this class, you will be able to: (1) explain how DNA is organized, (2) describe the mechanisms necessary to preserve and duplicate an organism's genome, (3) deduce information about genes from analyses of genetic crosses, (4) demonstrate how genetic information is controlled and expressed, (5) explain the processes that can affect the frequency of genotypes over time, and (6) apply experimental methods to analyze gene structure, gene expression, gene function, and genetic variants.

Class attendance: Class time will be used for lectures, activities, and exams. If you miss lecture, *you* are responsible for obtaining all notes, announcements, and assignments. Written confirmation of a legitimate excuse, such as a severe illness, will be required if any assessment is missed. Georgia Tech's excused absence policy will be enforced in this course. See catalog.gatech.edu/rules/4/. Lecture is a time when we all work together, so be courteous to your fellow students and do not disrupt class by entering and leaving the room, reading, talking, allowing cell phones to ring, etc.

Recordings of Class Sessions and Required Permissions: Classes may not be recorded by students without the express consent of the instructor unless it is pursuant to an accommodation granted by the Office of Disability Services. Class recordings, lectures, presentations, and other materials posted on Canvas are for the sole purpose of educating the students currently enrolled in the course. Students may not record or share the materials or recordings unless the instructor gives permission.

Learning management system: We will use Canvas as a learning management system for class communication and coordination. Assignments and messages will be sent through Canvas on a regular basis at gatech.instructure.com/courses/469216.

Textbooks and learning materials: WS Klug, MR Cummings, CA Spencer, MA Palladino, and DJ Killian. Concepts of Genetics. 12th edition. Pearson. 2019. We will use Pearson's

Mastering Genetics and Learning Catalytics throughout the class, which will require purchasing an access code. This should come bundled together with the electronic textbook if purchased through the bookstore. You can also purchase access to Mastering Genetics, Learning Catalytics, and the textbook through Pearson directly at www.pearson.com/us/higher-education/program/Klug-Modified-Mastering-Genetics-with-Pearson-e-Text-Standalone-Access-Card-for-Concepts-of-Genetics-12th-Edition/PGM1226214.html.

Student Use of Mobile Devices in the Classroom: You will need an electronic communication device (e.g., laptop, tablet, smartphone) for class. *Please resist using your electronic devices for non-class use.*

Homework: Throughout the semester, you will have online homework assignments administered through Mastering Genetics. The Mastering Genetics assignment scores will comprise part of your overall course grade. Homework deadlines will be provided in class on a rolling timeline and will be due on the date specified in class.

In-class activities: We will use Learning Catalytics for interactive class sessions. The Learning Catalytics assignment scores will make up part of your overall course grade. You can use any internet-enabled device (e.g., laptop, tablet, smartphone) to access Learning Catalytics during class. Note that the professor may administer written activities if deemed necessary.

Exams: The class will include three exams. The first two exams will be held during class time on the dates provided on the class schedule. The third exam will be held during the final exam period but will *not* be comprehensive and will last 2:15. Exams are closed-book and will be made up of questions based on topics, materials, and discussions presented in lecture, through Learning Catalytics activities, in the assigned readings, and in the Mastering Genetics assignments.

Course Expectations & Guidelines

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit http://www.catalog.gatech.edu/policies/honor-code/ or visit http://www.catalog.gatech.edu/rules/18/.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations. Please note that all quizzes must be taken in the classroom. Attempts to take the quizzes outside of the classroom, or facilitating other students taking the quizzes outside of the classroom, will be considered cheating.

Accommodations for Students

If you are a student with needs that require special accommodation, please contact the Office

of Disability Services at (404)-894-2563 or http://disabilityservices.gatech.edu/ as soon as possible to make an appointment to discuss your needs and to obtain an accommodations letter. Please also e-mail us as soon as possible in order to set up a time to discuss your learning needs.

Attendance and Participation

Class time will be used for lectures, quizzes, group activities, and exams. If you miss a class, you are responsible for obtaining all notes, announcements, and assignments. If an assessment is missed, written documentation of a legitimate excuse will be evaluated by the instructors. Medical documentation should be submitted to the Dean of Students (https://studentlife.gatech.edu/request-assistance) and not to the instructional team. The institute's excused absence policy will be enforced in this course (http://www.catalog.gatech.edu/rules/4/).

Collaboration & Group Work

Our classroom community is strengthened by active participation from all students. We work hard to create an engaging and inclusive space, and we encourage you to contribute positively to our classroom community by participating in group activities and in-class discussions (see in-class activities).

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

Each student has access to one (1) late token, which allows an assignment to be turned in up to three days late with no penalty. To use a late token for a homework assignment, please email the instructors at the time of the submission. To use a late token for a Canvas assignment, please leave a comment on Canvas at the time of the submission. Any assignment turned in after the deadline (without use of a late token) will not be awarded credit. Students that need to miss any assignments/exams for approved Institute activities and religious observances should first discuss with the professor to be excused for any missed credit. See http://www.catalog.gatech.edu/rules/4/ for more information. You are responsible for being present for all exams and quizzes and should plan ahead accordingly if you know you will miss an exam. Please coordinate with Dr. Birol and Dr. Smith at least two weeks in advance to schedule a makeup exam.

Student-Faculty Expectations Agreement

At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See http://www.catalog.gatech.edu/rules/22/ for an articulation of some basic expectation that you can have of us and that we have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, we encourage you to remain committed to the ideals of Georgia Tech while in this class.

Student Use of Mobile Devices in the Classroom

Lecture is a time when we all work together, so be courteous to your fellow students and do not disrupt class by entering and leaving the room, reading, talking, allowing cell phones to ring, etc. In addition, while in class, do not use your electronic devices (laptops, tablets, smartphones, etc.) for activities unrelated to class.

AI Policy

AI may be used in any capacity in any non-exam assignment for this course, and any use of AI must be acknowledged appropriately in the AI Contributions section of the assignment. The AI

Contributions portion should be included in every assignment and must include the following: a) identify the AI you used; b) describe how you used it/what you used it for; c) state the reason you chose to use AI in this way; d) describe what steps you took to verify the accuracy of the AI output. A separate entry should be included for each AI platform that you used. If you did not use any form of AI in your assignment, then your AI Contributions section must include the following: a) state that AI was not used, and b) explain the reason you chose not to use AI. Any indication that AI was used without proper acknowledgement may result in referral to OSI for investigation of academic misconduct. With any use of AI, you should always scrutinize any editing or response you get from the AI; although AI tools are becoming more sophisticated and can generate answers to increasingly complex questions, this does not mean that they are the correct answers.

Campus Resources for Students

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A comprehensive list of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being and can be found here: https://students.gatech.edu/student-resource-guide

Statement of Intent for Inclusivity

As members of the Georgia Tech community, we are committed to creating a learning environment in which all of my students feel safe and included. Because we are individuals with varying needs, we are reliant on your feedback to achieve this goal. To that end, we invite you to enter into dialogue with us about the things we can stop, start, and continue doing to make my classroom an environment in which every student feels valued and can engage actively in our learning community.

Assessments: Your grade in genetics will be determined by your performance on three exams, Mastering Genetics homework, and in-class Learning Catalytics activities. The relative values of these assessments are:

Assessment	Value
Learning Catalytics Activities	10%
Mastering Genetics Homework	10%
Exam I	25%
Exam II	25%
Exam III	30%
Total	100%

The most stringent scale used for grading will be 87-100% an A, 77-86.$\overline{9}$% a B, 67-76.$\overline{9}$ % a C, 57 - 66.$\overline{9}$% a D, and 56.$\overline{9}$% or less an F. This scale is subject to adjustment at the professor's discretion.

Americans with Disabilities Act: Students with disabilities needing academic accommodation should (1) register with and provide documentation to the Office of Disability Services and (2) notify the Professor during the first week of class indicating and describing the need for accommodation. Appropriate accommodations will then be provided as needed. See disabilityservices.gatech.edu.

Academic Integrity: Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations. Please note that all Learning Catalytics activities must be taken in the classroom. Attempts to take the activities outside of the classroom, or facilitating other students taking the activities outside of the classroom, will be considered cheating. See policylibrary.gatech.edu/student-affairs/academic-honor-code and catalog.gatech.edu/rules/18.

Late Assignments & Re-Scheduled/Missed Exams: Students that miss assignments or exams without a legitimate excuse will receive no credit for that assignment. However, students that miss homework or in-class assignments for approved Institute activities and religious observances will be excused for missed credit. Make up exams will only be given for approved activities. All legitimate excuses *must* be verified with written documentation. See catalog.gatech.edu/rules/4/.

Student-Faculty Expectations Agreement: At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See catalog.gatech.edu/rules/22 for an articulation of

some basic expectation that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Regrade policy: The *only way* that changes to your grades will be considered is through the official regrade procedure. Regrades can be requested if: (a) there has been an error in adding together your score, (b) you did not receive credit for an answer as given on the key, (c) there is a difference between your score and that of another student who gave the same answer, or (d) you did not receive credit for an answer that differs from that on the key but which is nevertheless correct. In general, regrades will not be considered for issues concerning the amount of partial credit awarded for an answer. To have an assignment regraded, you must submit an explanation of the problem directly to the professor in writing, and hand back your exam and scantron sheet. For issues (a) and (b), it will generally suffice to simply describe the problem. For issue (c) you will need to submit an explanation of the problem, as well as the name of the other student involved. For issue (d) you must give a detailed and explicit account as to why your answer is correct. Deadlines for the submission of regrades will be given when assignments are handed back. *No regrades will be considered after the deadline*. Note that if you request a regrade for a particular question, the professor reserves the right to regrade your entire exam or quiz, which could result in a lowering of your overall score.