**Biology II: Human Genetics – Spring 2023**

**Instructor Information**

Dr. Jeff Smith – Emeritus Director of Academic Affairs

Office- Elliott B009C

Contact – please contact me at [jsmith4@bsu.edu](mailto:jsmith4@bsu.edu) as I do not have an office phone.

Office hours – by arrangement. Zoom office hours available by request.

**Course Meeting Information**

1:00 MWF (lecture) and 2:00 – 3:50 R (lab)

Class and lab will meet in B211 unless otherwise announced.

**Course Description**

Human Genetics is an introductory genetics course that examines classical Mendelian genetics and modern examples as they relate to the human genome. Specific topics include: Mendelian genetics, the inheritance patterns of genes, pedigree analysis, chromosomal aberrations, behavioral genetics, genetic screening, population genetics and modern genetic applications. Laboratory activities emphasize techniques used to detect and analyze genetic information.

**Course Goals**

The goals of this course are to:

A. Acquaint the student with principles and processes in Genetics.

B. Learn to detect and interpret patterns in the inheritance of genetic traits with an

emphasis on human examples.

C. Acquaint the student with current updates in the field of Genetics.

**Suggested Student Prerequisites**

- Self-motivated and independent learner.

- 1 or 2 years of Biology.

- Algebra I or higher math background.

- Willing and able to spend the time necessary for success.

**Laboratory**

A number of laboratory exercises are planned for the course and directions will be provided. In some instances, the students will need to work on the lab assignment on their own at other times. The data may be collected, and the analysis and report will use the pooled data. Lab reports and grades will vary with the activity.

**Texts**

* Human Genetics by R. Lewis
* The Cartoon Guide to Genetics by L. Gonick and M. Wheelis
* Abraham Lincoln’s DNA and other Adventures in Genetics by P. Reilly
* Mutants by A. M. Leroi
* Other materials as assigned. (Scanned documents posted to BlackBoard, links to current publications etc.)

**Course Pacing**

This course will use a combination of lecture materials, class discussions, video clips etc. to present the materials. Because the field of Genetics is changing so rapidly, a great deal of attention will also be given to news releases, recent publications etc. so that the materials will be as current as possible. Students are encouraged to answer and ask questions and participate in discussions.

**Assessments**

The name of the game in learning Genetics is "practice, practice, and practice". Because of this, there will be **weekly** summary assignments so that students can "practice" the topics presented in class. Emphasis will be on “thinking” and “justification” of answers. Pay close attention to what happens in class and take good notes. **Your course grade will come mainly from these weekly assessments.**

**Indiana Academy Unexcused Absence Policy**

It is the policy of the Indiana Academy that any absence from class is unexcused, except for illness, death in the family, college or school-related activities, and extenuating circumstances . When a student is absent from a class, the instructor reports the student absence to the Faculty Attendance Coordinator in the Office of Academic Affairs. Unless the absence is excused by a school official, it is considered unexcused.

**Additional Assignments**

There will be a number of additional assignments (labs, Discussion Boards etc.) that will be given in the course. All of these will have their own point value added to the total points available for the course.

**Late work policy for Genetics**

All assignments are expected by class time on the due date. Any assignment will be accepted without penalty within 24 hours. For example, if an assignment is due on Friday at class time, it must be submitted by 1:00 on Saturday. If you need additional time, please make your request **BEFORE** the assignment is due. Late work will be accepted for excused absences but may not be accepted for “just being late”.

**Grading**

Grades will be calculated on the percentage of points obtained out of points available. The letter grade equivalent will be:

A = 90%, B = 80%, C = 70%, D\* = <70%. Each student starts the course will 100% or an A. The challenge is to maintain as high a percent grade as you can during the course. Students should be able to follow their grades in PowerSchool.

**Computer Use Policy**

Computers are encouraged for class work, note taking etc. We will also be using a number of web sites during class for lab work etc. However, students are expected to close their computers when requested and stay on only authorized sites. Computer use is a privilege, not a right and can be removed if abused.

### Academic Integrity Policy

Academic dishonesty in any form will not be tolerated. The student is responsible for knowing the policies and consequences as stated in the Academy handbook. Specifically for this course, cooperative group work on homework assignments is appropriate and is encouraged, but simple copying of an assignment from another or allowing another to copy your homework without collaboration is not acceptable. Additionally, exchanging ANY information about the content of quizzes or tests with students yet to take the exam or solicitation of such information is a severe violation of academic honesty standards.

If you have any questions regarding what constitutes cheating, please come to see me. In order to preserve the credibility of all students’ grades, I encourage you to tell me if you observe violations of the integrity policy.

### Diversity and Inclusion Policy

Ball State University aspires to be a university that attracts and retains a diverse faculty, staff, and student body. We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in our Beneficence Pledge and through university resources found at <http://cms.bsu.edu/campuslife/multiculturalcenter>

As such, it is important to ensure that your comments and behavior in class is respectful and inclusive. Discriminatory comments or behavior will not be tolerated and may result in disciplinary action, in accordance with Indiana Academy and Ball State University policy.

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| **Policy on the Americans with Disabilities Act (ADA)** | If you need course adaptations or accommodations because of a disability, please contact the ***Office of Disability Services***. The ***Office of Disability Services*** coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability services can be contacted at 765-285-5293 or [dsd@bsu.edu](mailto:dsd@bsu.edu). |