

## Term Information

Effective Term Spring 2024  
*Previous Value* Spring 2013

## Course Change Information

### What change is being proposed? (If more than one, what changes are being proposed?)

In order to align with the course requirements for GE Foundations: Natural Science, we propose to increase the credit hours for EEBO 2510 from three to four. This will be accomplished by adding one 55- minute lecture per week so the new course components will include three lectures (55 minutes each) and one laboratory period (2 hours and 45 minutes) per week.

### What is the rationale for the proposed change(s)?

Human Anatomy was a GE course under the previous General Education program; the course has been expanded to 4 credit hours to meet requirements for the Natural Sciences foundations in the new GE. These additional topics also will expand the course content such that in addition to learning about the structure of the human body, students will have an opportunity to study the anatomical basis for conditions that affect many humans.

### What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

Human Anatomy is a required prerequisite course for several programs such as Health Sciences and Nursing. This will allow students in these programs to potentially fulfill GE Foundations requirements in Natural Sciences with Human Anatomy

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

## General Information

Course Bulletin Listing/Subject Area Evol, Ecology & Organismal Bio  
Fiscal Unit/Academic Org Evolution, Ecology & Org Bio - D0390  
College/Academic Group Arts and Sciences  
Level/Career Undergraduate  
Course Number/Catalog 2510  
Course Title Human Anatomy  
Transcript Abbreviation Human Anatomy  
Course Description This introductory course in human anatomy introduces students to the principles of vertebrate anatomy with emphasis on human systems. Weekly laboratory meetings provide students with experience dissecting a small mammal as a model for human organ systems.  
*Previous Value* *An introduction to human anatomy; small mammal dissection.*  
Semester Credit Hours/Units Fixed: 4  
*Previous Value* *Fixed: 3*

## Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week  
Flexibly Scheduled Course Never  
Does any section of this course have a distance education component? No  
Grading Basis Letter Grade  
Repeatable No

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Course Components	Laboratory, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	Yes
Admission Condition	Natural Science
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark, Wooster
<i>Previous Value</i>	<i>Columbus, Lima, Marion</i>

## Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: 3 sem cr hrs in Biological Sciences.
Exclusions	
<i>Previous Value</i>	Not open to students with credit for 235.
Electronically Enforced	Yes
<i>Previous Value</i>	<b>No</b>

## Cross-Listings

Cross-Listings

## Subject/CIP Code

Subject/CIP Code	26.0403
Subsidy Level	Baccalaureate Course
Intended Rank	Freshman, Sophomore

## Requirement/Elective Designation

General Education course:  
Biological Science; Natural Sciences  
The course is an elective (for this or other units) or is a service course for other units

*Previous Value*

*General Education course:*  
*Biological Science*  
*The course is an elective (for this or other units) or is a service course for other units*

## Course Details

Course goals or learning objectives/outcomes	<ul style="list-style-type: none"><li>• 1. has gained an understanding of the history of anatomy and techniques used to study the structure of the body.</li><li>• 2. is able to describe and distinguish among the different tissues that make up the human body, identify the eleven organ systems of the body and know the organs each includes.</li><li>• 3. can identify organs and structures in dissected specimens and images of dissected specimens.</li><li>• 4. is able to explain or describe examples of the effects of disease and aging on cells, tissue, and/or organs.</li></ul>
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*Previous Value*

**COURSE CHANGE REQUEST**  
2510 - Status: PENDING

Last Updated: Vankeerbergen, Bernadette  
Chantal  
12/01/2023

**Content Topic List**

- Cells and tissues
- Skeletal System
- Muscles and Muscle Function
- Integument
- Nervous System
- Digestive System
- Urinary System
- Reproductive System
- Cardiovascular System
- Lymphatic and Immune Systems
- Endocrine System

**Sought Concurrence**

No

**Attachments**

- EEOB 2510 Syllabus.docx: New Syllabus  
*(Syllabus. Owner: Hamilton, Ian M)*
- EEOB 2510 ge-foundations-submission.pdf: GE Submission Form  
*(Other Supporting Documentation. Owner: Hamilton, Ian M)*
- EEOB 2510 GEC rationale.docx: Rationale for Course Change  
*(Cover Letter. Owner: Hamilton, Ian M)*
- Syllabus 2510 Sp 2019.pdf: Old Syllabus  
*(Syllabus. Owner: Hamilton, Ian M)*
- EEOB Curriculum Maps Oct 2023.xlsx: Curriculum Maps  
*(Other Supporting Documentation. Owner: Hamilton, Ian M)*

**Comments**

**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Hamilton, Ian M	11/20/2023 11:36 AM	Submitted for Approval
Approved	Hamilton, Ian M	11/20/2023 11:37 AM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	12/01/2023 11:51 AM	College Approval
Pending Approval	Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Hilty, Michael Neff, Jennifer Vankeerbergen, Bernadette Chantal Steele, Rachel Lea	12/01/2023 11:51 AM	ASCCAO Approval

**EEOB 2510 Human Anatomy  
Spring 2024  
Course Syllabus & Schedule**

**Course information**

- **course times and location:** Lecture MWF 3:00 – 3:55; weekly 2-hr 45-min laboratory on Tuesday or Thursday
- **4 credit hours**

**Instructor information**

Leslie Jackson  
jackson.22@osu.edu

**Office phone:** 614-247-1879

**Office hours** Monday & Wednesday  
11:00 AM – 12:30 PM  
or by appointment

3 to 4 GTAs TBD

**General information**

**Course prerequisite:** 3 credit hours in biological sciences. Students are expected to have a basic understanding of the parts and functions of animal cells, and the organs of the human body.

**Course description:** This introductory course in human anatomy introduces to the principles of vertebrate anatomy with emphasis on human systems. Weekly laboratory meetings provide students with experience dissecting a small mammal as a model for human organ systems.

**General Education: Foundations – Natural Science**

This course fulfills the goals of the GE Natural Science Foundation. Through the study of anatomical systems, successful students will:

1. engage in theoretical and empirical study within the natural sciences, gaining an appreciation of the modern principles, theories, methods and modes of inquiry used generally across the natural sciences.
2. discern the relationship between the theoretical and applied sciences while appreciating the implications of scientific discoveries and the potential impacts of science and technology.

The GE Natural Science Foundation has the following **Expected Learning Outcomes**. Successful students will:

- 1.1 Explain basic facts, principles, theories and methods of modern natural sciences, and describe and analyze the process of scientific inquiry.
- 1.2 Identify how key events in the development of science contribute to the ongoing and changing nature of scientific knowledge and methods.
- 1.3 Employ the processes of science through exploration, discovery and collaboration to interact directly with the natural world when feasible, using appropriate tools, models and analysis of data.
- 2.1 Analyze the inter-dependence and potential impacts of scientific and technological developments.
- 2.2 Evaluate social and ethical implications of natural scientific discoveries.
- 2.3 Critically evaluate and responsibly use information from the natural sciences.



This course fulfills these goals and expected learning outcomes by providing students with knowledge of the structure of their bodies including the identification of different cells, tissues and organs and the role each plays in life processes. Students are introduced to the sequence of events in early embryonic life that result in formation of the tissues and organs of the body and they are provided with names and locations of organs along with detailed descriptions of their internal organization. Laboratory exercises allow students to examine skeletal material and perform dissections on a small animal model (mink) and preserved organs (eye, brain, and heart) and involve the collection of quantitative and qualitative data. Through these collaborative hands-on activities, students gain an understanding of different types of tissue, their composition, texture and relative abundance. Students also have the opportunity to explore the organization of organs (including muscles and blood vessels) discussed in lecture and learn to identify the organs in their dissected specimens. Students will be exposed to historical and modern approaches to the study of the human body in lecture, and to social and ethical issues arising from the use of dissection to understand human anatomy.

### **Legacy General Education:**

This course fulfills the requirements of the legacy GE Natural Science: Biological Science category, which has the following goals:

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students understand key events in the development of science and recognize that science is an evolving body of knowledge.
3. Students describe the inter-dependence of scientific and technological developments.
4. Students recognize social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

### **Course goals:**

This course has the following **Course Goals**, which are achieved when a student

1. has gained an understanding of the history of anatomy and techniques used to study the structure of the body.
2. is able to describe and distinguish among the different tissues that make up the human body, identify the eleven organ systems of the body and know the organs each includes.
3. can identify organs and structures in dissected specimens and images of dissected specimens.
4. is able to explain or describe examples of the effects of disease and aging on cells, tissue, and/or organs.

### **Textbook and supplies**

- Required/Carmenbooks: *Human Anatomy (9<sup>th</sup> ed, 2019)*; Marieb, Brady and Mallatt, Pearson Education, Inc, Hoboken, NJ. The textbook and/or courseware for this course is being provided via CarmenBooks. Through CarmenBooks, students obtain publisher materials electronically through CarmenCanvas, saving them up to 80% per title. The fee for this material is included as part of tuition and is listed as *CarmenBooks fee* on your Statement of Account. In addition to cost-savings, materials provided through CarmenBooks are available immediately on or before the first day of class. There is no need to wait for financial aid or scholarship money to purchase your textbook.
- Unless you choose to opt-out of the program, you do NOT need to purchase any materials for this course at the bookstore. For more information on the program or information on how to opt out, [please visit the CarmenBooks website](#).
- An electronic version of the textbook and associated material is available in MyLab and Mastering on Carmen. Access the courseware for this title through the MyLab/Mastering link in the course navigation. Instructions for registering for MyLab and Mastering can be found under General Course Information on the Carmen homepage. This information will also be discussed during the first lecture.

- Recommended: *A Dissection Guide and Atlas to the Mink* (2<sup>nd</sup> ed; 2020); Smith and Schenk, Morton Publishing Company, Englewood, CO; ISBN 9781640430525. Extensive reference materials for lab are provided on Carmen, and a limited number of copies of the mink manual are available to use in lab, but students might find it helpful to have their own copy of this book. eBooks of the 2<sup>nd</sup> edition of this lab manual are available relatively inexpensively (~\$17) from the publisher's website (<https://www.morton-pub.com/catalog/dissection-guides/dissection-guide-atlas-mink-2e>)

The textbook is intended to be used as a reference for lecture material. There is more information in the text than will be presented in lecture but reading assignments will specify the material you should read. Some lecture topics are not covered in the textbook. For these topics, pdfs of relevant articles or links to online readings will be posted on Carmen.

### **Content delivery, other resources and expectations**

**Lectures** will be held in person. Lecture slides and a set of note guides will be posted on Carmen for each lecture topic. In general, the note guides contain bullet points for topics discussed in lecture, and relevant figures not available in the textbook. You are welcome to download and print these files, or use them as electronic files, to guide your notetaking and/or studying, but realize that these are not “the lecture notes”. Neither the slides nor the note guides contain all of the information that will be presented in lecture, but the note guides do include a great deal of white space on each page for notetaking. Students are expected to take their own notes, including drawing diagrams that illustrate the lecture topics. If you plan to take notes electronically, but your device does not allow you to draw easily, it is recommended that you have some paper and pencil (preferably 3-4 colored pencils) at hand to supplement your typed notes with drawings.

In addition to the note guides, a vocabulary list and learning objectives will be posted for each lecture topic. It is highly recommended that students read over the Learning Objectives *before* attending a lecture to enhance their understanding of the lecture material. You also are encouraged to use the learning objectives when you review or study your notes to ensure that you understand the material needed to address each objective, and successfully answer questions on quizzes and exams.

**Laboratory** instruction will be in person. Before attending each lab, students are expected to: **1) read the information in the appropriate Lab Guide posted on Carmen, 2) watch assigned videos and 3) review the structures listed in the Lab Guide that they are expected to examine** (and learn) once they are in lab. Doing so will provide some perspective on what must be completed in class and familiarize you with the terminology involved with each lab. Laboratory instructors will inform their students of a time during the week when they will hold “office hours” and/or be available via Zoom to answer questions about laboratory material.

Students are expected to attend both lecture and laboratory and make regular use of lecture and laboratory resources. Carmen discussion sites are available to ask questions of the instructors or of each other. Students are expected to **check the course homepage on Carmen every weekday and at least once on the weekend**, and are responsible for reading course announcements and other course information provided on Carmen. If you have not set up Carmen to automatically send notifications about assignments and announcements, you must be sure to check the Carmen course site regularly. For last minute updates or announcements, students will be contacted by email using email addresses from Carmen. Not reading an announcement on Carmen or in an email is not an acceptable excuse for failing to know about course updates.

**Grading and exams:** Final grades will be determined by points earned on the assessments listed below.

	Possible points	~% of final grade
Lecture exam 1	40	8
Lecture exam 2	40	8
Lecture exam 3	40	8
Final exam	50	10
Lecture activities (best 5 of 7 @ 10 pts each)	50	10
Lecture quizzes (best 6 of 8 @ 5 pts each)	30	6
Lab quizzes (best 4 of 5 @ 12 pts each)	48	9.6
Lab reviews (best 8 of 11 @ 4 pts each)	32	6.4
Lab photo assignments (best 8 of 11 @ 10 pts each)	80	16
Lab exam 1	15	3
Lab exam 2	35	7
Lab exam 3	40	8

Final grades will be based on the percentage of points out of 500 that you earn during the semester. **There will not be any “rounding up” or “bumping” when determining final grades.** For example, in order to earn an A, you must have  $\geq 93\%$  of the 500 points, or 465 points; if you earn 464.75 points your final grade will be an A-.

#### Grading Scale

93–100: A	80–82.9: B-	67–69.9: D+
90–92.9: A-	77–79.9: C+	60–66.9: D
87–89.9: B+	73–76.9: C	Below 60: E
83–86.9: B	70–72.9: C-	

### Details of assessments

**Lecture exams** will cover material up to and including the listed lecture topics. They will emphasize the topics listed for each exam but bear in mind that all but the first exam will be somewhat cumulative because you will need to understand and recall material from earlier in the course in order to completely and correctly answer questions on later exams. Exams will be administered **in class** on the days indicated in the Lecture Schedule. These are closed-book online exams in Carmen that require the use of LockDown Browser. Each exam will include an assortment of objective questions (multiple choice, label a diagram, fill-in-the-blank, etc.) and an additional short-answer question (from your choice of two lecture topics) that requires you to write brief answers (one or two sentences) to a series of two to four questions. The final exam will be similar to midterm exams, but will include comprehensive, multiple-choice questions based on frequently-missed questions from previous exams. The comprehensive section of the final exam is worth 10 points; a list of the frequently-missed questions from previous exams will be provided to guide your preparation for this part of the exam.

**Lecture activities** are designed to allow students to answer practice exam questions, read a brief paragraph and then answer questions about it, summarize the effects of a particular disease on the structure of the body, or describe how something discussed in lecture is relevant to their personal experience. Except when asked to describe personal experiences, students will work within a group of 4-6 students to complete the activities. These are unscheduled/unannounced activities that will occur approximately every other week.

**Lecture quizzes** will be online in Carmen and include multiple choice questions covering recent lecture material. Students are permitted to use notes etc. while taking the quiz and will be allowed two attempts of each quiz with their highest score being recorded as the score for the quiz.

**Lab quizzes** will online in Carmen and **administered in lecture** on the days specified in the Lecture Schedule. These quizzes require identification of structures labeled in photographs of dissections or short fill-in-the-blank answers to questions regarding lab material. These assessments will require the use of LockDown Browser, time will be limited to ~45 seconds per question. A practice lab quiz will be available prior to the first real lab quiz so students can be sure LockDown Browser is working on their device and have a chance to become familiar with the process of taking online quizzes and exams.

**Lab Exams** will be in-class, practical exams for which you will identify pinned or labeled structures in dissected specimens in an online Carmen quiz. LockDown Browser is required for these exams.

**Lab reviews** are small group activities to be completed towards the end of each laboratory period. Each pair or trio of students will be asked to label or indicate a set of 8 structures and have their identifications checked by an instructor. Unless an absence is excused, attendance in lab is required to earn credit for a lab review.

**Lab photo assignments** are homework assignments for which you will take photos of skeletal material or your dissected specimen and label an assigned list of things. The assigned lists will be provided following the lab period and after labeling the images, students will submit their assignment for grading on Carmen. **These assignments are due at 11:59 PM on either the Sunday or Tuesday before a student's next lab.** Late submissions will receive comments, but they will not be graded for credit. Students are permitted (and even encouraged) to work with other students on these assignments, and students may share images with each other, but each student must submit their own set of labeled images. Assignments from two or more students with identical labels (or labels that differ only in color or font) will be regarded as academic misconduct. Unless an absence is excused, attendance in lab is required to earn credit for these assignments.

### General comments

- Details of what will be covered on each quiz or exam can be found in the lecture and lab schedules on the last pages of this document, or in the description of the assignment on Carmen.
- It is a student's responsibility to know and adhere to deadlines posted in the assignment schedule for the assessments described above. Note that 12:00 PM is **noon**, 12:00 AM is **midnight**, and 11:59 PM is one minute before midnight. Except for instances of excused absences (see below), online lecture quizzes must be taken during the time period posted. Late lab assignments may be submitted for feedback, but they will receive a score of zero.
- Questions on quizzes and exams will be automatically graded in Carmen, although the teaching staff will review fill-in-the-blank questions to ensure you receive partial-credit for answers with minor spelling errors (more than two incorrect letters receives ½ credit). Written answers on lecture exams require



manual grading. Therefore, scores for a lab quiz or exam and lecture exams are subject to change until the teaching staff has completed manual grading. 6

- It is very important that students **read and follow all written instructions throughout the semester.** Not “knowing” when something is due or how assignment files are to be labeled and submitted will result in loss of points.

### ***Attendance, Makeup and Late Submission Policies***

Makeup exams will be given in cases of **documented** illness, emergencies, mandatory appointments (e.g. court dates or academic interviews), or participation in academic or university-sponsored events such as research days or intercollegiate athletics. Arrangements must be made **in advance (preferred) or within 24 hours** of the missed exercise; **documentation must be presented when you report an absence or request a makeup**, i.e. you must attach it to the email that you send, send it after making a phone call, or physically hand it to an instructor. Acceptable documentation includes, but is not limited to, a note from a physician or clinic, a copy of an interview schedule or invitation, photos that verify your presence in the ER, at an accident scene, a burned-out apartment etc. However, do not assume that your absence will be excused just because you provide some form of documentation. Except in situations deemed extraordinary by the instructor, requests made after 24 hours will not be considered. ***If graded exams have been returned to the class, make-up lecture and lab exams will be oral exams.***

- **For absences relating to in-class lab quizzes, lecture activities or lecture exams contact Dr. Jackson.** If you are unable to take a lab quiz or complete a lecture activity for an excusable reason and notify Dr. Jackson by noon on the day of the quiz or activity, your score for the quiz or activity will be prorated at the end of the semester based on the average of your other non-zero scores. This option is available for only one of the four quizzes or one of the five activities that count towards your final grade.
- Online lecture quizzes must be taken during the period designated on Carmen and no extensions will be granted.
- **For absences from lab, contact your lab instructor, not Dr. Jackson.** If you have an excused absence for a lab and wish to receive full credit for the lab assignment and lab review, you may attend another lab section or an open lab session (time and day TBA), but only after confirming the arrangement with the appropriate lab instructors.

***Health and safety requirements:*** All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>).

***Academic Misconduct:*** It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

***Statement of Diversity:*** As an instructor, I am committed to promoting diversity and inclusion, and providing a welcoming climate for all students that ultimately improves the academic environment and experience. I welcome suggestions, questions, and comments throughout the semester; any exchange of ideas will be conducted with confidentiality, safety, and respect as guiding principles. For more information on diversity see the [OSU website \(www.osu.edu/initiatives/diversity.html\)](http://www.osu.edu/initiatives/diversity.html) The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are isolating while waiting for a COVID-19 test result, please let me know immediately. Those testing positive for COVID-19 should refer to the Safe and Healthy Buckeyes site for resources. Beyond five days of the required COVID-19 isolation period, I may rely on Student Life Disability Services to establish further reasonable accommodations. You can connect with them at [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; or [slds.osu.edu](http://slds.osu.edu).

### ***Religious accommodation***

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

***Additional University resources:*** As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting [ccs.osu.edu](http://ccs.osu.edu) or calling [614-292-5766](tel:614-292-5766). CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at [614-292-5766](tel:614-292-5766) and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org).

### **How much time should you expect to devote to this course?**

8

According to rule 3335-8-24 of the University bylaws, students should expect to spend twelve hours per week, including time spent in class, to earn an average grade of "C" in a 4-credit hour course. In general, you should expect to spend your time in an average week of anatomy as follows.

Reading for lecture	2 hours
Attending lecture	3 hours
Reviewing notes	1 hour
Lecture quizzes (every other week)	½ hour
Lab preparation	1 hour
Attending lab	3 hours
Lab assignment	½ -1 hour
Reviewing lab material	1 hour

Time needed for additional studying for lecture or lab exams is provided by the fact that no new preparation, review or assignment for class on those days is required.

**A final note:** Because of the vast amount of terminology and information required for this class, it is extremely important that you keep up with the course material. Deadlines and due dates have been established to keep you engaged on a regular basis. You will find that learning anatomy is a bit like learning a foreign language, so the more exposure you have to the language by listening, speaking, reading, and writing, the easier life will be. Make every effort to attend lecture and lab, and keep up with watching lab videos. A bit of preparation before a class meeting will be far more productive and efficient than waiting until the day(s) before an exam to catch up on reading and terminology. Should you find yourself struggling to keep up (or needing to catch up), do not hesitate to contact Dr. Jackson or your lab instructor for some extra help or suggestions. And sooner is far better than later for this – the ONLY extra credit opportunities in the class are points earned for answering extra credit questions on quizzes or exams. Inquiring at the end of the semester about improving your grade will be too late.

## LECTURE SCHEDULE

Week		LECTURE TOPIC	Assigned Reading Chapters refer to Marieb text
1	M	1. Introduction to Anatomy	Chapter 1.1-1.2 'The Development of Anatomy' <a href="https://doi.org/10.1093/actrade/9780198707370.003.0001">https://doi.org/10.1093/actrade/9780198707370.003.0001</a> Chapter 1.3 - 1.4
	W	2. History of Anatomy	
	F	3. Current Anatomical Techniques	
2	M	<b>MLK DAY – no class</b>	Chapter 3 Chapter 2
	W	4. Embryology	
	F	5. Cells	
3	M	6. Epithelial Tissue	Chapter 4.1 Chapter 4.2 Chapter 6.1
	W	7. Connective Tissue Proper	
	F	8. Cartilage	
4	M	9. Bone	Chapter 6.2-6.4; 7 & 8 as reference for lab
	W	Bone	
	F	10. Connective Tissue Disorders	
5	M	<b>EXAM 1 (Lecture topics 1-9)</b>	Chapter 9 'Man the Tottering Biped' <a href="https://doi.org/10.1093/actrade/9780198707370.003.0008">https://doi.org/10.1093/actrade/9780198707370.003.0008</a>
	W	11. Joints	
	F	12. Adaptations of the Human Skeleton	
6	M	13. Muscle and Muscular Systems	Chapter 10 & 11.1 11.3 as reference for lab
	W	Muscle and Muscular Systems	
	F	14. Anatomy of Exercise	
7	M	15. Integument	Chapter 5  Chapter 12.1-12.3
	W	16. Environmental Impacts on the Integument	
	F	17. Nervous System - Introduction	
8	M	Nervous System – CNS	13.1-13.2 14.1-14.3, 14.4c & 15 Chapter 13.4
	W	Nervous System – PNS	
	F	18. Anatomy of CNS Disorders	
9	M	<b>EXAM 2 (Lecture topics 10-17)</b>	16.1 – 16.2 16.3
	W	19. Special Senses – Taste, Smell & Vision	
	F	Special Senses – Hearing & Equilibrium	
		<b>Spring Break</b>	
10	M	20. Digestive System – oral cavity & esophagus	Chapter 23.1-23.2e Chapter 23.2f-23.2g Chapter 23.2h – 23.3
	W	Digestive System – stomach & small intestine	
	F	Digestive System – large intestine & glands	
11	M	21. Disorders of the Digestive System	Chapter 23.4 Chapter 24 Chapter 17
	W	22. Urinary System	
	F	23. Endocrine System	
12	M	<b>EXAM 3 (Lecture topics 18-23)</b>	Chapter 25.1 and 25.5a&b Chapter 25.2-25.3
	W	24. Reproductive System - male	
	F	Reproductive System – female	
13	M	25. Anatomy of infertility & fertility	Chapter 22 Chapter 18.2-18.2a and 19
	W	26. Respiratory System	
	F	27. Cardiovascular System	
14	M	Cardiovascular System	Chapter 20.1; 20.2 as reference for lab  Chapter 21
	W	28. Anatomy of Heart Disorders	
	F	29. Lymphatic and Immune System	
15	M	30. Anatomy of Autoimmune Diseases	
	F	<b>FINAL EXAM 4:00-5:45 PM</b> <b>Lecture topics (24-30 plus comprehensive)</b>	

## LABORATORY SCHEDULE

Week	TOPIC	LAB REVIEW	PHOTO ASSIGNMENT
1	1. Introduction & Anatomical Orientation Axial Skeleton	1	1
2	2. Integument (microscopy) Appendicular Skeleton	2	2
3	<b>LAB EXAM 1 (Labs 1-2)</b>		
4	3. Muscles I	3	3
5	4. Muscles II	4	4
6	5. Muscles III	5	5
7	6. Nervous System	6	6
8	<b>LAB EXAM 2 (Labs 3-6)</b>		
9	7. Digestive and Endocrine Systems	7	7
	<b>No labs - SPRING BREAK!!</b>		
10	8. Urinary and Reproductive Systems	8	8
11	9. Respiratory System; Heart	9	9
12	10. Lymphatic System; Vasculature & Nerves I	10	10
13	11. Vasculature & Nerves II	11	11
14	<b>LAB EXAM 3 (Labs 7-11)</b>		

**EEOB 2510 Spring 2019  
Human Anatomy (#18572)  
Course Syllabus & Schedule**

***Instructional staff & contact information***

		<i>Office</i>	<i>Phone</i>
Leslie Jackson jackson.22	Lecture – 001 Jennings Hall MW 3:00 PM – 3:55 PM Office hrs T 3:00 – 4:30; W 12:00-1:30 PM	114 Aronoff	614-247-1879 614-292-8088 (EEOB office)
Geoffrey Gould gould.191	Laboratory – 224 Jennings Hall		
Naava Honer honer.4	Laboratory – 224 Jennings Hall		
Salvatore Sidoti sidoti.23	Laboratory – 224 Jennings Hall		

***All instructors are available by appointment – to arrange an appointment, speak to us in class or send an e-mail with 3 possible meeting times that fit your schedule, and we will reply to confirm a time.***

***Course goals:*** The major goal of this course is to introduce students to the principles of vertebrate anatomy with emphasis on human systems. Through the study of anatomical systems, students will gain an understanding of the basic facts, theories, and principles of modern science, the relationship between science and technology, the implications of scientific discoveries and the potential of science and technology to address problems of the contemporary world. Laboratory activities will reinforce these concepts and provide students with opportunities to apply scientific reasoning and methods to their study of animal form and function. These goals are in accordance with the following expected learning outcomes of the GEC Natural Science category:

- Students understand the basic facts, principles, theories and methods of modern science.
- Students understand key events in the development of science and recognize that science is an evolving body of knowledge.
- Students describe the inter-dependence of scientific and technological developments.
- Students recognize social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

***Textbook and supplies:***

- Required: *Principles of Human Anatomy 2014*. Tortora and Nielsen, Wiley Publishing, Hoboken, NJ. The ISBN for the textbook alone is 9781118344996, but students are encouraged to obtain access to WileyPlus, an on-line site that includes an electronic version of the text, a laboratory manual, and dissection videos, review material, and assignments that will be used throughout the semester. Further details about the various options for purchasing the text will be provided during the first lecture.
- Recommended: *Dissection Guide and Atlas to the Mink 20006*. Smith and Schenk, Morton Publishing Company, Englewood, CO; ISBN 9780895824509. A limited number of copies will be available for student use in lab, and extensive reference materials for lab information will be provided on Carmen, but students might find it helpful to have their own copy of this book.
- Disposable gloves and instruments needed for dissections (scissors, forceps, and blunt probe) will be available in the lab. If you wish, you can wear an old shirt or lab coat to protect your street clothes during labs with dissections.

The Tortora and Nielsen text is intended to be used as a reference for lecture material. In general, there is more information in the text than will be presented in lecture, but weekly reading assignments will specify the material you should read, and the study objectives related to those readings. Some specific readings or outside resources may be assigned for topics not fully discussed in lecture due to time constraints, or for topics not covered in the text. Lecture exams will cover only information presented in lecture or contained in these specifically assigned readings.

Laboratory work will follow the lecture schedule as closely as possible. For labs involving dissections, there are videos in WileyPlus that can be viewed, and written details of each dissection can be found in the

laboratory manual available on WileyPlus or in the mink dissection guide. The laboratory manual for the mink includes chapters on the skeletal system, but the non-human skeletal system is not covered in WileyPlus so a separate handout will be posted on Carmen with information and diagrams for the skeletal system labs. A Laboratory Guide is available on Carmen, and printed copies will be available for use in lab. The Laboratory Guide includes relevant video assignments, an outline of the laboratory exercises, instructions for the photo assignment, and lists of structures that you are expected to know for lab quizzes and exams.

**Other resources and expectations:** A set of note guides similar to the slides presented in lecture will be posted in Word format for each lecture topic. In general, the note guides contain bullet points for topics discussed in lecture, and relevant figures not available in the textbook. You are welcome to download and print these files, or use them as electronic files, to guide your note-taking or studying, but realize that these are not “the lecture notes”. They do not contain all of the information that will be presented in lecture, but they do include a great deal of white space on each page for note-taking. Students are expected to take their own notes in class, including drawing diagrams that illustrate the lecture topics (3-4 colored drawing pencils will be very useful). In addition to the note guides, a vocabulary list and learning objectives with the relevant textbook reading will be posted for each lecture. You are encouraged to use the learning objectives when you review (study) your notes and explore the review material on WileyPlus to insure that you understand the material needed to address each objective, and successfully answer questions on exams.

Carmen discussion sites are available to ask questions of the instructors or of each other. Students are expected to check the course homepage on Carmen regularly (at least every other day), and are responsible for reading course announcements and other course information provided on Carmen. If you regularly use an e-mail address other than your buckeyemail address, be sure to have your buckeyemail forwarded to your alternative address, or also check your buckeyemail during the term.

Students are expected to attend both lecture and laboratory regularly; attendance in lecture may be recorded in photographs taken of the entire class. For lecture, it is highly recommended that students read over the study objectives and at least skim through the textbook reading *before* coming to class to enhance their understanding of the lecture material. Before attending lab, students **should read the instructions in the Lab Guide and the assigned pages in the WileyPlus or mink lab manual, and review the list of structures they are expected to examine and know.** Doing so will provide some perspective on what you are expected to do, and familiarize you with the terminology involved with each lab. Viewing the dissection videos in WileyPlus is also recommended to prepare you for dissection exercises. Students are encouraged to ask questions during lecture, during lab, on Carmen, as well as outside of class.

**Grading and exams:** Final grades will be determined by points earned on the items listed below (see Lecture and Lab Schedules for quiz and exam dates). If necessary, final point totals will be adjusted upward (*i.e.* curved) such that the class average is 75% (or 375 out of a total possible 500 points). Note that curving of final grades has not been necessary for that past 15 years, *i.e.* do not count on there being a curve. Your standing with respect to the rest of the class can be evaluated by viewing graded item statistics on Carmen

	Possible points	% of final grade
Lecture exam 1	50	10
Lecture exam 2	50	10
Lecture exam 3	50	10
Final exam (~50% comprehensive)	100	20
On-line quizzes (best 5 of 7 @ 4 pts each)	20	4
In-class lab quizzes (best 4 of 5 @ 15 pts each)	60	12
Dissection reviews (best 10 of 11 @ 2 pts each)	20	4
Lab assignments (best 10 of 11 @ 5 pts each)	50	10
Lab exam 1	20	4
Lab exam 2	35	7
Lab exam 3	45	9

Lecture exams will include multiple choice, true/false, matching, and short answer/diagram questions. On-line quizzes will be multiple choice, labeling, and fill-in-the-blank questions about recent lecture and/or lab material. In-class laboratory quizzes (**administered in lecture**) and lab exams will be practical in nature, and require identification of structures labeled in photographs of dissections (for quizzes) or dissected specimens (for exams), or short answers to questions regarding lab material. The schedule for in-class quizzes and exams is on page 4. Details of quiz or exam material can be found by clicking on the assignment/event on Carmen – email inquiring for this information are not likely to receive a reply. Dissection reviews and lab assignments both require that you attend lab and complete the dissection exercises. Lab assignments require that you submit labeled photographs of your dissected specimens. Details for each assignment are provided in the Lab Guide, and procedures for preparing your photographs will be discussed in lecture and lab.

Final grades will be based on the percentage of points out of 500 that you earn during the semester; the grading scale will follow the OSU norm (93-100% = A, 90-93% = A-, 87-90% = B+, 83-87% = B, etc.). There will not be any “rounding up” or “bumping” when determining final grades. For example, in order to earn an A, you must have 93% of the 500 points, or 465 points; if you earn 464.5 points your final grade will be an A-.

**Makeup and Late Submission Policy:** Makeup exams will be given in cases of **documented** illness, emergencies, mandatory appointments (e.g. court dates or academic interviews), or participation in academic or university-sponsored events such as research days or intercollegiate athletics. Arrangements must be made **in advance (preferred) or within 24 hours** of the missed exercise; **documentation must be presented when you report an absence or request a makeup**, i.e. you must attach it to the email that you send, send it after making a phone call, or physically hand it to an instructor. In general, I will not reply to emails regarding absences or requests for makeups **unless documentation is attached to the message**, or you have included a description of the documentation you will provide as soon as possible. However, do not assume that your absence will be excused just because you provide some form of documentation. Except in situations deemed extraordinary by the instructor, requests made after 24 hours will not be considered. If you are ill, but do not have an excuse from a clinic or physician, you should complete and submit the Absence Excuse form available on the Student Health Services website (shs.osu.edu). Be sure to include the name and contact information for someone who can vouch for your being too ill to attend class. **If graded exams have been returned to the rest of the class, make-up lecture exams will be written/essay exams and make-up laboratory exams will be oral exams.** In-class lab quizzes cannot be made up (you drop your lowest score); on-line quizzes must be taken during the period designated on Carmen and cannot be made up; late photo assignments will not be accepted. If you have an excused absence for a lab, and wish to receive full credit for lab assignments and dissection reviews, you may attend another lab section, but only after confirming the arrangement with the both of the appropriate lab instructors. **Messages regarding absence from lab should be sent to your lab instructor, not Dr. Jackson** (unless she is your lab instructor).

**Academic Misconduct:** Ohio State University has a strict code of academic misconduct, and I expect students to adhere to this code. As instructors, we are also required by the code to report to the Committee on Academic Misconduct all instances of alleged academic misconduct, including, but not limited to, plagiarism, falsifying an absence excuse, and dishonest practices during examinations (Faculty Rule 3335-5-487). Plagiarism includes submitting a lab assignment that you did not prepare; dishonest exam behavior includes the use of notes or online resources during quizzes and exams, obtaining answers from another student, or making answers available to another student. It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all forms of student academic misconduct wherever committed. Read the published code (if you’ve not already done so), and understand what is considered academic misconduct by the University. <http://studentlife.osu.edu/csc/http://studentlife.osu.edu/csc/>

**Statement of Diversity:** As an instructor, I am committed to promoting diversity and inclusion, and providing a welcoming climate for all students that ultimately improves the academic environment and experience of the entire class. I welcome suggestions, questions, and comments throughout the semester; any exchange of ideas will be conducted with confidentiality, safety, and respect as guiding principles. For more information on diversity see the [OSU website](http://www.osu.edu/initiatives/diversity.html) (www.osu.edu/initiatives/diversity.html)

**Students with Disabilities:** Students with disabilities certified by the Office of Student Life Disability Services will be appropriately accommodated and should inform me as soon as possible of their needs. It is imperative that the student take the initiative to bring such needs to an instructor’s attention, as we are not legally permitted to inquire about such particular needs of students. SLDS is located in 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue; [slds@osu.edu](mailto:slds@osu.edu); telephone 614-292-3307, VRS 614-439-1334; <http://www.ods.ohio-state.edu>. Other students who are concerned about possible disabilities that could affect their performance in this or any other class are encouraged to make me aware of those concerns.

**A final note:** Because of the vast amount of terminology and information required for this class, it is extremely important that you keep up with the course material. You will find that learning anatomy is a bit like learning a foreign language, so the more exposure you have to the language, the easier life will be. Make every effort to not miss a lecture or lab, and be aware that a little bit of preparation before class will be far more productive and efficient than waiting until the day(s) before an exam to catch up on reading and terminology. Should you find yourself struggling to keep up (or needing to catch up), do not hesitate to contact Dr. Jackson for some extra help. And sooner is far better than later for this – if you wait until the last day of class or after the final exams to inquire about improving your grade, it will be too late.



## LECTURE SCHEDULE

DAY & DATE	LECTURE TOPIC	CHAPTER	LAB QUIZ
M 07 Jan W 09 Jan	1. Introduction 2. Cells & Tissues	1 and 4 2 and 3 up to Cartilage	
M 14 Jan W 16 Jan	Cells & Tissues 3. Integument	5	1
M 21 Jan W 23 Jan	<b>MLK Day – no class</b> 4. Cartilage	Relevant part of 3	
M 28 Jan W 30 Jan	5. Bone Bone	Relevant part of 3 and 6	
M 04 Feb W 06 Feb	<b>EXAM 1 (Lecture topics 1-5)</b> 6. Joints	9	
M 11 Feb W 13 Feb	7. Muscle 8. Muscular System	10 11	2
M 18 Feb W 20 Feb	9. Nervous System Basics 10. Brain, Spinal Cord, and Nerves	16 17 and 18	
M 25 Feb W 27 Feb	11. Peripheral Nervous System 12. Special Senses	19 and 20 (receptors) 21	
M 04 Mar W 06 Mar	<b>EXAM 2 (Lecture topics 6-11)</b> 13. Digestive System	24	
M 11 Mar W 13 Mar	<b>Spring Break</b> <b>Still Spring Break</b>		
M 18 Mar W 20 Mar	Digestive System 14. Urinary System	25	3
M 25 Mar W 27 Mar	15. Reproductive System Reproductive System	26 (male) 26 (female)	4
M 01 Apr W 03 Apr	<b>EXAM 3 (Lecture topics 12 -15)</b> 16. Respiratory System	23	
M 08 Apr W 10 Apr	Respiratory System 17. Endocrine System	22	5
M 15 Apr W 17 Apr	18. Cardiovascular System Cardiovascular System	12-14	
M 22 Apr	19. Lymphatic & Immune Systems	15	
F 26 Apr	<b>FINAL EXAM 4:00 – 5:45 PM</b> <b>(Lectures 16-19 plus comprehensive)</b>		

## LABORATORY SCHEDULE

Week of	TOPIC	LAB REVIEW	PHOTO ASSIGNMENT
07 Jan	1. Introduction & Anatomical Orientation Axial Skeleton	1	1
14 Jan	2. Integument (microscopy) Appendicular Skeleton	2	2
21 Jan	<b>LAB EXAM 1 (Labs 1-2)</b>		
28 Jan	3. Muscles I	3	3
04 Feb	4. Muscles II	4	4
11 Feb	5. Muscles III	5	5
18 Feb	<b>LAB EXAM 2 (Labs 3-5)</b>		
25 Feb	6. Nervous and Endocrine Systems	6	6
04 Mar	7. Digestive System	7	7
11 Mar	<b>SPRING BREAK!!</b>		
18 Mar	8. Urinary and Reproductive Systems	8	8
25 Mar	9. Respiratory System; Heart	9	9
01 Apr	10. Lymphatic System; Vasculature & Nerves I	10	10
08 Apr	11. Vasculature & Nerves II	11	11
15 Apr	<b>LAB EXAM 3 (Labs 6-11)</b>		

## Rationale for changes proposed for EEOB 2510

In order to align with the course requirements for GE Foundations: Natural Science, we propose to increase the credit hours for EEBO 2510 from three to four. This will be accomplished by adding one 55-minute lecture per week so the new course components will include three lectures (55 minutes each) and one laboratory period (2 hours and 45 minutes) per week.

Two of the existing lecture topics (Nervous System and Bone) will be expanded to include an additional lecture period. In addition to the existing lecture topics, proposed new lecture topics will include:

- History of Anatomy
- Current Anatomical Techniques
- Embryology
- Connective Tissue Disorders
- Adaptations of the Human Skeleton
- Anatomy of Exercise
- Environmental Impacts on the Integument
- Anatomy of CNS Disorders
- Disorders of the Digestive System
- Anatomy of Infertility
- Anatomy of Heart Disorders
- Anatomy of Autoimmune Diseases

These additional topics will expand the course content such that in addition to learning about the structure of the human body, students will have an opportunity to study the anatomical basis for conditions that affect many humans.

# GE Foundation Courses

## Overview

Courses that are accepted into the General Education (GE) Foundations provide introductory or foundational coverage of the subject of that category. Additionally, each course must meet a set of Expected Learning Outcomes (ELO). Courses may be accepted into more than one Foundation, but ELOs for each Foundation must be met. It may be helpful to consult your Director of Undergraduate Studies or appropriate support staff person as you develop and submit your course.

This form contains sections outlining the ELOs of each Foundation category. You can navigate between them using the Bookmarks function in Acrobat. Please enter text in the boxes to describe how your class meets the ELOs of the Foundation(s) to which it applies. Because this document will be used in the course review and approval process, you should use language that is clear and concise and that colleagues outside of your discipline will be able to follow. Please be as specific as possible, listing concrete activities, specific theories, names of scholars, titles of textbooks etc. Your answers will be evaluated in conjunction with the syllabus submitted for the course.

## Accessibility

If you have a disability and have trouble accessing this document or need to receive the document in another format, please reach out to Meg Daly at [daly.66@osu.edu](mailto:daly.66@osu.edu) or call 614-247-8412.

## GE Rationale: Foundations: Race, Ethnicity, and Gender Diversity (3 credits)

Requesting a GE category for a course implies that the course fulfills **all** the expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Race, Ethnicity, and Gender Diversity, please answer the following questions for each ELO.

### A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational for the study of Race, Ethnicity and Gender Diversity.

Course Subject & Number: \_\_\_\_\_

**B. Specific Goals of Race, Ethnicity, and Gender Diversity**

GOAL 1: Successful students will engage in a systematic assessment of how historically and socially constructed categories of race, ethnicity, and gender, and possibly others, shape perceptions, individual outcomes, and broader societal, political, economic, and cultural systems.

**Expected Learning Outcome 1.1: Successful students are able to describe and evaluate the social positions and representations of categories including race, gender, and ethnicity, and possibly others.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.2: Successful students are able to explain how categories including race, gender, and ethnicity continue to function within complex systems of power to impact individual lived experiences and broader societal issues.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.3: Successful students are able to analyze how the intersection of categories including race, gender, and ethnicity combine to shape lived experiences.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.4: Successful students are able to evaluate social and ethical implications of studying race, gender, and ethnicity.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

GOAL 2: Successful students will recognize and compare a range of lived experiences of race, gender, and ethnicity.

**Expected Learning Outcome 2.1: Successful students are able to demonstrate critical self- reflection and critique of their social positions and identities.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 2.2: Successful students are able to recognize how perceptions of difference shape one’s own attitudes, beliefs, or behaviors.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 2.3: Successful students are able to describe how the categories of race, gender, and ethnicity influence the lived experiences of others.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met.

### **GE Rationale: Foundations: Social and Behavioral Sciences (3 credits)**

Requesting a GE category for a course implies that the course **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Social and Behavioral Sciences, please answer the following questions for each ELO.

#### **A. Foundations**

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Social and Behavioral Sciences.

Course Subject & Number: \_\_\_\_\_

**B. Specific Goals of Social and Behavioral Sciences**

GOAL 1: Successful students will critically analyze and apply theoretical and empirical approaches within the social and behavioral sciences, including modern principles, theories, methods, and modes of inquiry.

**Expected Learning Outcome 1.1: Successful students are able to explain basic facts, principles, theories and methods of social and behavioral science.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.2: Successful students are able to explain and evaluate differences, similarities, and disparities among institutions, organizations, cultures, societies, and/or individuals using social and behavioral science.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)



Course Subject & Number: \_\_\_\_\_

GOAL 2: Successful students will recognize the implications of social and behavioral scientific findings and their potential impacts.

**Expected Learning Outcome 2.1: Successful students are able to analyze how political, economic, individual, or social factors and values impact social structures, policies, and/or decisions.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 2.2: Successful students are able to evaluate social and ethical implications of social scientific and behavioral research.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 2.3: Successful students are able to critically evaluate and responsibly use information from the social and behavioral sciences.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**GE Rationale: Foundations: Historical or Cultural Studies (3 credits)**

Requesting a GE category for a course implies that the course fulfills the expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Historical and Cultural Studies, please answer the following questions for each ELO. Note that for this Foundation, a course need satisfy either the ELOs for Historical Studies or the ELOs for Cultural Studies.

**A. Foundations**

Please explain in 50-500 words why or how this course is introductory or foundational in the study of History **or** Cultures.

Course Subject & Number: \_\_\_\_\_

## **B. Specific Goals of Historical *or* Cultural Studies**

**Historical Studies (A) Goal:** Successful students will critically investigate and analyze historical ideas, events, persons, material culture and artifacts to understand how they shape society and people.

**Expected Learning Outcome 1.1A:** Successful students are able to identify, differentiate, and analyze primary and secondary sources related to historical events, periods, or ideas. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.2A:** Successful students are able to use methods and theories of historical inquiry to describe and analyze the origin of at least one selected contemporary issue. Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.3A: Successful students are able to use historical sources and methods to construct an integrated perspective on at least one historical period, event or idea that influences human perceptions, beliefs, and behaviors.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.4A: Successful students are able to evaluate social and ethical implications in historical studies.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

Cultural Studies (B) Goal: Successful students will evaluate significant cultural phenomena and ideas to develop capacities for aesthetic and cultural response, judgment, interpretation, and evaluation.

**Expected Learning Outcome 1.1B: Successful students are able to analyze and interpret selected major forms of human thought, culture, ideas or expression.** Please link this ELO to the course goals and topics and identify the *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.2B: Successful students are able to describe and analyze selected cultural phenomena and ideas across time using a diverse range of primary and secondary sources and an explicit focus on different theories and methodologies.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.3B: Successful students are able to use appropriate sources and methods to construct an integrated and comparative perspective of cultural periods, events or ideas that influence human perceptions, beliefs, and behaviors.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.4B: Successful students are able to evaluate social and ethical implications in cultural studies.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met.

### **GE Rationale: Foundations: Writing and Information Literacy (3 credits)**

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Writing and Information Literacy, please answer the following questions for each ELO.

Course Subject & Number: \_\_\_\_\_

### A. Foundations

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Writing and Information Literacy.

### B. Specific Goals of Writing and Information Literacy

GOAL 1: Successful students will demonstrate skills in effective reading, and writing, as well as oral, digital, and/or visual communication for a range of purposes, audiences, and context.

**Expected Learning Outcome 1.1: Successful students are able to compose and interpret across a wide range of purposes and audiences using writing, as well as oral, visual, digital and/or other methods appropriate to the context.**

Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. Explain how the course includes opportunities for feedback on writing and revision. Furthermore, please describe how you plan to insure sufficiently low instructor-student ratio to provide efficient instruction and feedback. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.2: Successful students are able to use textual conventions, including proper attribution of ideas and/or source, as appropriate to the communication situation.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. Is an appropriate text, writing manual, or other resource about the pedagogy of effective communication being used in the course? (50-700 words)

**Expected Learning Outcome 1.3: Successful students are able to generate ideas and informed responses incorporating diverse perspectives and information from a range of sources, as appropriate to the communication situation.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)



Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.4: Successful students are able to evaluate social and ethical implications in writing and information literacy practices.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

GOAL 2: Successful students will develop the knowledge, skills, and habits of mind needed for information literacy.

**Expected Learning Outcome 2.1: Successful students are able to demonstrate responsible, civil, and ethical practices when accessing, using, sharing, or creating information.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 2.2: Successful students are able to locate, identify and use information through context appropriate search strategies.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 2.3: Successful students are able to employ reflective and critical strategies to evaluate and select credible and relevant information sources.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**GE Rationale: Foundations: Literary, Visual, or Performing Arts (3 credits)**

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Literary, Visual, and Performing Arts, please answer the following questions for each ELO.

**A. Foundations**

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Literary, Visual, or Performing Arts.

**B. Specific Goals**

Goal 1: Successful students will analyze, interpret, and evaluate major forms of human thought, cultures, and expression; and demonstrate capacities for aesthetic and culturally informed understanding.

**Expected Learning Outcome 1.1: Successful students are able to analyze and interpret significant works of design or visual, spatial, literary or performing arts.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.2: Successful students are able to describe and explain how cultures identify, evaluate, shape, and value works of literature, visual and performing art, and design.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.3: Successful students are able to evaluate how artistic ideas influence and shape human beliefs and the interactions between the arts and human perceptions and behavior.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.4: Successful students are able to evaluate social and ethical implications in literature, visual and performing arts, and design.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Goal 2: Successful students will experience the arts and reflect on that experience critically and creatively.

**Expected Learning Outcome 2.1: Successful students are able to engage in informed observation and/or active participation within the visual, spatial, literary, or performing arts and design.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 2.2: Successful students are able to critically reflect on and share their own experience of observing or engaging in the visual, spatial, literary, or performing arts and design.**

Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**GE Rationale: Foundations: Natural Science (4 credits)**

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Natural Sciences, please answer the following questions for each ELO.

**A. Foundations**

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Natural Science.

Course Subject & Number: \_\_\_\_\_

## **B. Specific Goals for Natural Sciences**

GOAL 1: Successful students will engage in theoretical and empirical study within the natural sciences, gaining an appreciation of the modern principles, theories, methods, and modes of inquiry used generally across the natural sciences.

**Expected Learning Outcome 1.1: Successful students are able to explain basic facts, principles, theories and methods of modern natural sciences; describe and analyze the process of scientific inquiry.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.2: Successful students are able to identify how key events in the development of science contribute to the ongoing and changing nature of scientific knowledge and methods.** Please link this ELO to the course goals and topics and indicate specific activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.3: Successful students are able to employ the processes of science through exploration, discovery, and collaboration to interact directly with the natural world when feasible, using appropriate tools, models, and analysis of data.** Please explain the 1-credit hour equivalent experiential component included in the course: e.g., traditional lab, course-based research experiences, directed observations, or simulations. Please note that students are expected to analyze data and report on outcomes as part of this experiential component. *(50-1000 words)*



Course Subject & Number: \_\_\_\_\_

GOAL 2: Successful students will discern the relationship between the theoretical and applied sciences, while appreciating the implications of scientific discoveries and the potential impacts of science and technology.

**Expected Learning Outcome 2.1: Successful students are able to analyze the inter-dependence and potential impacts of scientific and technological developments.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 2.2: Successful students are able to evaluate social and ethical implications of natural scientific discoveries.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 2.3: Successful students are able to critically evaluate and responsibly use information from the natural sciences.** Please link this ELO to the course goals and topics and indicate *specific* activities/ assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**GE Rationale: Foundations: Mathematical and Quantitative Reasoning (or Data Analysis) (3 credits)**

Requesting a GE category for a course implies that the course fulfills **all** expected learning outcomes (ELOs) of that GE category. To help the reviewing panel evaluate the appropriateness of your course for the Foundations: Mathematical and Quantitative Reasoning (or Data Analysis), please answer the following questions for each ELO.

**A. Foundations**

Please explain in 50-500 words why or how this course is introductory or foundational in the study of Mathematical & Quantitative Reasoning (or Data Analysis).

**B. Specific Goals for Mathematical & Quantitative Reasoning/Data Analysis**

Goal: Successful students will be able to apply quantitative or logical reasoning and/or mathematical/statistical analysis methodologies to understand and solve problems and to communicate results.

**Expected Learning Outcome 1.1: Successful students are able to use logical, mathematical and/or statistical concepts and methods to represent real-world situations.** Please link this ELO to the course goals and topics and indicate *specific* activities/ assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.2: Successful students are able to use diverse logical, mathematical and/or statistical approaches, technologies, and tools to communicate about data symbolically, visually, numerically, and verbally.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.3: Successful students are able to draw appropriate inferences from data based on quantitative analysis and/or logical reasoning.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

Course Subject & Number: \_\_\_\_\_

**Expected Learning Outcome 1.4: Successful students are able to make and evaluate important assumptions in estimation, modeling, logical argumentation, and/or data analysis.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)

**Expected Learning Outcome 1.5: Successful students are able to evaluate social and ethical implications in mathematical and quantitative reasoning.** Please link this ELO to the course goals and topics and indicate *specific* activities/assignments through which it will be met. (50-700 words)