

# **HUMAN ANATOMY AND PHYSIOLOGY SCI 4305/6**

**Mr. Michael R. Mayfield**

**Office: WA147**

**Phone: 285-7407**

**Lecture: MWF 9-10 & 10-11**

**Lab: 01 Th 10-12**

**02 Th 2-4**

**Room B211 Lecture**

**Room B211 Lab**

**Canvass**

1.5 Credit

Autumn & Spring

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**TEXT**

**Human Anatomy and Physiology  
Marieb & Hoehn , 9<sup>th</sup> Edition  
Readings as assigned**

**LAB**

**Accompanying Laboratory Handouts**

**ADDITIONAL**

**Anatomy Coloring Book Pages  
Handouts as Assigned**

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**Course Description:**

This course will cover material in five integrated parts. They are orientation and organization of the human body, support and movement, integration and control systems, regulation and maintenance and, continuance of the human species. Clinical topics that relate to personal and family health issues will be interwoven with a consideration of the relationship of structure to function. The concepts of anatomical and physiological processes will be explored so that those seeking careers in the biomedical fields will benefit from this course, as will those interested in the mechanics of the human body. Course material will be supplemented with interactive computer programs and handouts. This is a course that is extensively "hands on" and will require a commitment of both time and interest. We will spend as much time in lab, as possible, learning by doing science.

## Attendance and Late Work:

You are expected to be in class every day. Students who arrive more than 10 minutes late without an excuse may be marked tardy at the discretion of the instructor. The lecture will be held in B202 and lab will be held in B211 (with a few announced exceptions). I am making every effort to provide a cohesive course that integrates laboratory and lecture experiences. Laboratory participation is mandatory. Because of the preparation and set up time you may not be able to make up a missed laboratory experience. A portion of your grade in the course is determined by participation. **Failure to turn in more than 3 laboratory reports for unexcused reasons may result in a failing grade in the class.** If you should miss a lecture or laboratory period **IT IS YOUR RESPONSIBILITY** to get notes and any other information from your fellow students or me. I will be glad to provide you with any handouts. I expect to be notified by phone, email, or by note attached to my office door of any possible absences PRIOR TO THEIR OCCURANCE.

All work is expected on the due date, however, in the case of an emergency or other significant event, work may be turned in late. Prior notice and approval of the instructor is required. Otherwise, late work will be discounted significantly. Make-up work for unexcused absences may be permitted in some exceptional circumstances at the discretion of the instructor.

## Grading:

There will be three lecture/lab exams given during the course of the term. The approximate dates are given in the lecture/lab schedule. Each exam will be of equal weight (100 points). There will be no official "mid-term" exam. During finals we have a comprehensive test worth fifty points in addition to the fourth exam. There will be quizzes and your lab book worth approximately 100 points during the term. There will be reports, both oral and written, worth approximately 100 points. Lecture and laboratory participation is expected and will help you throughout the semester. We may do a report on a disease or disorder of your choice worth 50 points. Formal lab write-ups will constitute 100 points towards the grade. You will work in teams on lecture/laboratory activities on the senses, which will be accorded points towards the final grade. I will attempt to provide a variety of educational experiences and a variety of assessments for this course. I will be glad to provide or assist in developing extra work/experiences for anyone wishing to go beyond the limits of our introductory course. I do not accord points towards the grade for extra work. Any changes to the grading will be discussed in class and will be posted to Blackboard.

2 or 3 lecture exams @ 100 points	2-300 points
1 comprehensive exam @ 100 points-possible	(100 points)
Quizzes/lab notebook/workbook	100 points
Reports and presentations	100 points
Research project/presentation	50 points
Lab write-ups	<u>100 points</u>
TOTAL	650(750) points

**Your grade will be determined as a percentage of total possible points on the following scale:**

<b>A</b>	<b>90-100%</b>
<b>A-</b>	<b>88-89</b>
<b>B+</b>	<b>86-87</b>
<b>B</b>	<b>80-85</b>
<b>B-</b>	<b>77-79</b>
<b>C+</b>	<b>75-76</b>
<b>C</b>	<b>70-74</b>
<b>C-</b>	<b>62-69</b>
<b>D*</b>	<b>&lt;62%</b>

I reserve the right to "curve" individual examinations based on my professional judgment of the material covered. The final grades will not be curved. Your scores will be recorded in the **PowerSchool** electronic grade book. A copy of your current standing in the course is available to you at any time during the course at your request. I will periodically provide copies to you in class and will be sending home copies at midterms and prior to finals. It is your responsibility to make sure that all entries in the electronic grade book are correct. It is your "right" to challenge a grade that you feel is undeserved. If you wish to officially challenge a grade, come and see me, and I will assist you in instituting the proper procedures.

#### **Assessment of the Course:**

Every member of the class will have the opportunity to evaluate the course lecture, laboratory, material and instructor. The evaluation will be administered towards the end of the term and will be anonymous. The results of the evaluation will not be made available to the instructor until after the end of the term. Course evaluations are used to strengthen the quality of the course and to make merit and retention decisions regarding the instructor.

#### **Academic Integrity:**

Students will be expected to cite sources and references for all materials used to develop course projects and homework. Plagiarism and other forms of **academic dishonesty will not be tolerated**. If you are unsure of what constitutes academic dishonesty, please refer to the student handbook for clarification. If you are unsure about sharing data ask or email me and I will clarify the assignment.

#### **Computer Use:**

Laptop computers are an enhancement to our learning environment. They can be useful in class for note-taking and looking up information during lecture. They should not be used for I.M. or other personal entertainment purposes during class time. If you are found to be using your computer inappropriately, I will ask you to leave it at the front desk when you enter the class. Persistent problems will result in my request that you withdraw from the course.

## **Office Hours:**

I will be posting office hours the first week of the term both in person with social distancing and virtual.. I will be available to assist you with any course or non-course related matters at those times. When I am in, my office door is always open; please make use of it. I can usually be found either in my office (WA147) or lab (B211). My phone is 765-285-7407; my email is [mmayfiel@bsu.edu](mailto:mmayfiel@bsu.edu) If you need help, it is your responsibility to contact me. Please share this syllabus with your parent(s). It is important that we all work together to insure your success and satisfaction. It will also save paper.

Office Hours: Are posted next to my office door.

On Monday, Wednesday and Friday I AM in 9 AM to 3:00 PM.

On Tuesday I am in 9:00 Am to 12:00 and in Lab B209 2:00-4:00

On Thursday I am available in my lab B211 8:00 Am to 4:00 PM

When I'm not in the office I am in B211 and can be reached there.

I am in the office at other times, please feel free to stop by.

If you need me at other times email and make arrangements.

## **Students requiring additional assistance:**

Any student requiring accommodations or any student wishing additional assistance in this course should contact the instructor for tutoring or other help. Additional assistance is available from the counseling center, peer tutoring program and through the special education program. Accommodations are available as needed/requested.

## **Diversity**

The Indiana Academy and Ball State University aspire to attract and retain 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 the Indiana Academy/ Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in the Beneficence Pledge and through university resources found at <http://cms.bsu.edu/campuslife/multiculturalcenter>.

## **Covid 19 Policy**

Masks and social distancing will be worn and practiced while in class, in the Burriss building and on Ball State Universities Campus. We will take every precaution we can to ensure as safe and clean environment for learning as possible. Rooms and desks will be cleaned and disinfected. I am relying on you and your assistance in maintaining all appropriate precautions to ensure our safety and to maintain a viable safe learning experience.

## II. Indiana Academy Mask Policy

a. The Indiana Academy will follow Ball State University's mask policy. Effective July 1, 2020, all people on campus—including faculty, staff, students, vendors, contractors, suppliers, and visitors—should wear face masks (covering nose and mouth) while inside campus buildings. Face masks are specifically required in the following situations:

- i. When in the presence of others (indoors or outdoors) and physical distancing is difficult to maintain, such as in hallways, elevators, stairs, public spaces, and common areas;
- ii. When in a classroom or laboratory;
- iii. When using campus transportation (such as a shuttle bus);
- iv. When multiple individuals are in a University vehicle.

Students, faculty, and staff are encouraged to bring their own mask. Masks will be provided to anyone who is unable to bring a mask or their mask is damaged.

This syllabus is a tentative schedule/outline and may be subject to change.

<b>DATE</b>			
<b>Week One</b>	<b>INTRO./GENERAL/UNIVERSALS ORG./ORIENTATION SYSTEMS</b>	<b>LAB SAFETY/ MICROSCOPY</b>	<b>CH. 1</b>
<b>Week Two</b>	<b>BIOMOLECULES I BIOMOLECULES II BIOMOLECULES III</b>	<b>BIOMOLECULES MICROSCOPY</b>	<b>CH. 2</b>
<b>Week Three</b>	<b>CELLS ORGANELES MEMBRANES</b>	<b>ENZYME KINETICS</b>	<b>CH.3</b>
<b>Week Four</b>	<b>CELL PROCESSES CELL PROCESSES METABOLISM</b>	<b>TISSUES I</b>	<b>CH. 4</b>
<b>Week Five</b>	<b>HISTOLOGY I HISTOLOGY II HISTOLOGY III</b>	<b>CELLS &amp; TISSUES II</b>	<b>CH. 4</b>
<b>Week Six</b>	<b>OPEN INTEGUMENTRY SYSTEM INTEGUMENTRY II</b>	<b>EXAMINATION ONE</b>	<b>CH. 5</b>
<b>Week Seven</b>	<b>INTEGUMENTRY III INTEGUMENTRY IV SKELETAL SYSTEM</b>	<b>SKIN/HAIR/NAILS</b>	<b>CH. 5</b>
<b>Week Eight</b>	<b>SKELETAL SYSTEM II SKULL AXIAL SKELETON</b>	<b>BONES/ STRUCTURE &amp; DEVELOPEMNT</b>	<b>CH. 6</b>

<b>Week Nine</b>	<b>APPENDICULAR SKELETON APPENDICULAR SKELETON II Open</b>	<b>OPEN</b>	<b>CH. 7</b>
<b>Week Ten</b>	<b>ARTICULATIONS I ARTICULATIONS II OPEN</b>	<b>EXAMINATION TWO ?</b>	<b>CH 8</b>
<b>Week Eleven</b>	<b>MUSCULAR SYSTEM CELLULAR &amp; MOLECULAR MOLECULAR II</b>	<b>MUSCLES I</b>	<b>CH. 9 &amp; 10</b>
<b>Week Twelve</b>	<b>MUSCULATURE I MUSCULATURE II MUSCULATURE III</b>	<b>MUSCLES II</b>	<b>HANDOUTS</b>
<b>Week Thirteen</b>	<b>CIRCULATORY SYSTEM CIRCULATORY II BLOOD</b>	<b>TESTING/ECG</b>	<b>CH. 19</b>
<b>Week Fourteen</b>	<b>THE HEART HEART /CLINICAL EXAMINATION III</b>	<b>CARDIOVAS- CULAR ACTIVITIES</b>	<b>CH. 18</b>
<b>Week Fifteen</b>	<b>Thanksgiving Break</b>		
<b>Week Sixteen</b>	<b>VIRTUAL OPEN VIRTUAL OPEN VIRTUAL OPEN</b>	<b>PRESENTATIONS</b>	<b>CH .17 DISEASES &amp; DISORDERS</b>
<b>Week Seventeen</b>	<b>VIRTUAL PRESENTATIONS OPEN SEMESTER WRAP UP</b>	<b>DISEASES &amp; DISORDERS</b>	

**FINAL EXAMS**

**WINTER BREAK**

# SCHEDULE SECOND SEMESTER

<b>Week</b>	<b>Date</b>	<b>Topic</b>	<b>Lab</b>	<b>Reading</b>
<b>1</b>	<b>M</b>	<b>Intro./Heart Review</b>		<b>CH 7Review</b>
	<b>W</b>	<b>Lymphatic Syst</b>	<b>Vaccinations</b>	
	<b>F</b>	<b>Lymphatic</b>		
<b>2</b>	<b>M</b>	<b>Disease processes</b>	<b>Ochterlony Lab</b>	<b>CH 20</b>
	<b>W</b>	<b>Disease Processes</b>		
	<b>F</b>	<b>Immunology</b>		
<b>3</b>	<b>M</b>	<b>MLK Day</b>	<b>Antigen/Antibody</b>	<b>Handouts</b>
	<b>W</b>	<b>Immune System</b>	<b>Kirby Bauer</b>	
	<b>F</b>	<b>Immunology</b>		
<b>4</b>	<b>M</b>	<b>Immunology</b>	<b>Epidemology</b>	
	<b>W</b>	<b>Immunology</b>		
	<b>F</b>	<b>Special Topics Immunology</b>		
<b>5</b>	<b>M</b>	<b>Examination I</b>	<b>Neurons</b>	<b>Ch 11</b>
	<b>W</b>	<b>Nervous Tissue</b>		
	<b>F</b>	<b>HASTI</b>		
<b>6</b>	<b>M</b>	<b>Nervous</b>	<b>Sheeps Brain</b>	<b>Ch 12</b>
	<b>W</b>	<b>Central Nervous Syst.</b>		
	<b>F</b>	<b>Brains</b>		
<b>7</b>	<b>M</b>	<b>Brain Physiology</b>	<b>PNS</b>	<b>Ch 13</b>
	<b>W</b>	<b>Peripheral Nervous Syst.</b>	<b>Reflex &amp; Cranial</b>	
	<b>F</b>	<b>PNS</b>	<b>Nerves</b>	
<b>8</b>	<b>M</b>	<b>Autonomic Nervous Syst.</b>	<b>Special Senses</b>	<b>Ch 14 &amp; 15</b>
	<b>W</b>	<b>Autonomic Nervous Syst.</b>		<b>Handouts</b>
	<b>F</b>	<b>Examination II</b>		
<b>9</b>	<b>M</b>	<b>Spring Break</b>		<b>Handouts</b>
	<b>W</b>			
	<b>F</b>			
<b>10</b>	<b>M</b>	<b>Nervous Syst. General</b>	<b>Special Senses</b>	<b>Ch 15</b>
	<b>W</b>	<b>Open</b>	<b>Presentations</b>	
	<b>F</b>	<b>Open</b>	<b>Handouts</b>	
<b>11</b>	<b>M</b>	<b>Endocrine System I</b>	<b>Open labs</b>	<b>Ch 16</b>
	<b>W</b>	<b>Endocrine System II</b>		

	F	Endocrine Issues		
12	M W F	Respiratory System I Respiratory System II Respiratory System III	Respiratory lab Handouts	Ch 22
13	M W F	Digestive System Digestive System II Open/Issues	Digestive Activities	Ch 23 & 24
14	M W F	Nutrition Urinary System I Kidney Function	Kidney Dissection Urinalysis	Handout CH 25 & 26
15	M W F	Examination III Reproductive Systems Development of Repro.	Reproduction I	Ch 27
16	M W F	Male Reproduction Female Reproduction Female Reproduction	Dissection Repro System	Ch 27 Handouts
17	M W F	Female Reproduction Reproductive Physiology Reproductive Behavior	Reproduction or Development Embryology	CH 28
18		Final Examinations		