

# **Human Anatomy & Physiology I BIOL 3210-OL1**

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# **Human Anatomy & Physiology II**

BIOL 3210-OL1 & BIOL 3210L-OL1

Harding University
College of Science: Department of Biology
4 Credit Hours

Instructor: Ryan Stork Ph.D.

Phone (office): 501-279-5416

Email: <u>RJStork@Harding.edu</u> (Best way to reach me)

Office Hours: Any time via email;

Weekdays 9-12 via phone or CANVAS chat

**Instructor: Amber Hug, M.Ed** 

Phone (office): 501-279-5498

Email: <u>a1hug@haridng.edu</u> (Best way to reach me) Video and Chat Hours available M-F 10:00 am to 4pm and by

appointment

Semester/Term: Summer 2 2020 Jul. 6 – Jul 31

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#### **Course Information**

#### **Course Communication Protocols**

Students will be required to check their Harding University email and CANVAS course page daily. Lectures will be provided in ECHO360, which can be accessed via the CANVAS course page. The CANVAS calendar will be used extensively to provide due dates for assignments.

Dr. Stork will be available via phone or CANVAS chat weekdays 9-12 CST. Email can be used at any other time. Do NOT expect a quick response after 5pm or on weekends.

### Netiquette

As servants of Christ, we must know how to address each other via all methods of communication - whether online or on-ground. We realize that in an online classroom, students may be across the globe - all the more reason to state what to expect when communicating online. When it comes to our communication, let's remember the following: Harding University is a Christian university and expectations are that the relationship and communication style between one another should reflect Harding's Christian mission.

It is expected that each student to conduct themselves in a way that is consistent with the Harding Student code of conduct. A web-based classroom is still a classroom, and comments or actions that would be inappropriate in a regular classroom are likely to be inappropriate in a web-based course as well. Any behavior or messaging that makes another person feel uncomfortable will be treated the same as academic dishonesty. A zero for the assignment the first time and removal from the course if the behavior continues.

# **University Mission Statement**

Harding's <u>mission</u> is to provide a quality education that will lead to an understanding and philosophy of life consistent with Christian ideals. This involves the following goals:

- 1. **Generally, the integration of faith, learning and living** developing the whole person through a commitment to Christ and to the Bible as the Word of God, an emphasis on lifelong intellectual growth, and the encouragement of Christian service and world missions through a servant-leadership lifestyle.
- 2. **Specifically, the development of Christian scholarship** while acknowledging dependence on God, stressing Christian commitment to intellectual excellence through a strong liberal arts foundation and effective professional preparation.
- 3. **The promotion of Christian ethics** creating an atmosphere that emphasizes integrity and purity of thought and action.

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- 4. The development of lasting relationships fostering personal and social relationships through interaction among faculty, staff and students; and stressing a lifelong commitment to marriage and the Christian family.
- 5. The promotion of wellness emphasizing that the body is the temple of the Holy Spirit and that lifetime health habits contribute to a better quality of life.
- 6. The promotion of citizenship within a global perspective developing a Christian understanding of and respect for other cultures through an emphasis on liberty and justice.

### **Department of Biology Mission Statement**

The mission of the department of Biology is to give students a deep appreciation and understanding of the diverse life on earth and instill in students a sense of the God-given responsibility to be good stewards of that life.

"Who...does not know that the hand of the Lord has done this, in whose hand is the life of every living thing, and the breath of all mankind?" - Job 12:9-10

# **Catalog Description**

Second half of a two semester sequence. Covers the anatomy and physiology of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems.

# **Integration of Faith and Learning Statement**

This course looks at the integrated structure and function of the human body. Students and teachers will show Christ-like respect and humility in all discussions and interactions related to this course. The human body is fearfully and wonderfully made and every person should be treated as a masterpiece of our God.

# **Prerequisites**

A "C" or higher in BIOL 3200 and one of the following: BIOL 1500, CHEM 2110 or CHEM 3740/3740L

### **Course Rationale**

The purpose of this course is to provide the student with an in-depth study of the anatomy and physiology (structure and function) of the human body. In so doing, we will prepare the student for the second semester of anatomy and physiology and prepare them for future professional or biological study of the human structure and function.

## **Required Course Materials**

All high level A&P textbooks may be useful in this course. We have chosen to use an etext associated with the Mastering A&P software. (You do NOT need to buy a hard copy of the text unless you really want one)

Human Anatomy and Physiology (11th Ed.) Marieb and Hoehn, 2018

eText ISBN-13: 9780134807409 Hardcover ISBN-13: 9780134580999

Lab manual: **Mastering A&P** by Pearson (link via CANVAS)

#### **Textbook Rationale**

The etext we are using works seamlessly with the lab materials we are using. While this book does not follow the lectures exactly, it covers the same body and will be a valuable resource for students at an affordable price.

### **Optional Materials**

There are several books and textbooks that are optional. These resources may be helpful in your studying but will NOT be required for the course. You can find many of these books on AMAZON or in the Harding Bookstore. Different learning styles will find different resources more or less helpful.

Anatomy & Physiology (10<sup>th</sup> Ed.) Patton

ISBN-13: 9780323529044

The Visual Analogy Guide to Human Anatomy & Physiology  $(3^{rd} \ Ed.)$  Krieger

ISBN-13: 9781617316265

**Anatomy Coloring Book** 

ISBN-13: 9780134459363

## **Learning Objectives**

# University Learning Outcomes (ULOs)

This course addresses:

### ULO 7: Scientific perspective:

Students will identify and apply the principles and processes of scientific reasoning

### ULO 8 Wellness perspective:

Students will exhibit knowledge and skills that lead to high-level person wellness (spiritual, physical, intellectual, emotional, social)

# **Program Learning Outcomes (PLOs)**

- 1. Broaden your appreciation of creation at all levels from atoms to biomes
- 2. Understand methods of scientific inquiry that lead to our knowledge of science
- 3. Recognize the characteristics of life at all levels
- 4. Recognize and explain the interconnectedness between us and our environment
- 5. Demonstrate an understanding of biological knowledge and methods as well-informed citizens in a contemporary world
- 6. Think carefully about the relationship between faith and science and recognize that the relationship need not be antagonistic

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## **Course Learning Objectives (CLOs)**

### Upon completion of this course, you will be able to:

- 1. Effectively communicate information related to the anatomy and physiology of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive system.
- 2. Recognize the anatomical structures and explain the physiological functions of these body systems.
- 3. Recognize and explain the principle of homeostasis and the use of negative and positive feedback loops to control physiological systems.
- 4. Use anatomical knowledge to predict physiological consequences, and use knowledge of function to predict the features of anatomical structures.
- 5. Recognize and explain the interrelationships within and between anatomical and physiological systems in the human body.
- 6. Read and interpret graphs of anatomical and physiological data.
- 7. Demonstrate an ability to think critically.
- 8. Demonstrate quantitative skills needed to succeed in anatomy and physiology.
- 9. Demonstrate laboratory procedures used to examine anatomical structures on both models and dissected specimens and evaluate and discuss physiological functions of each organ system.
- 10. Communicate clearly and in a way that reflects knowledge and understanding of the human body and demonstrates the ability to adapt information to different audiences and applications.
- 11. Synthesize ideas to make a connection between knowledge of anatomy and physiology and real-world situations, including healthy lifestyle decisions and homeostatic imbalances.
- 12. Demonstrate the ability to make connections between concepts across anatomy and physiology.

### **Module Learning Objectives (MLOs)**

### Upon completion of this module, you will be able to:

### **Endocrine System**

- 1. Identify important structures and functions of the endocrine system
- 2. Discuss the major hormones, their targets, functions, and source.

#### Cardiovascular System

- 1. Identify the important structures and functions of the cardiovascular system
- 2. Trace the flow of blood through the heart
- 3. Discuss major circulations of the human body
- 4. Identify selected vessels of the body
- 5. Identify the blood cell types

### Lymphatic System

- 1. Identify the important structures and functions of the lymphatic system
- 2. Discuss immunity and its subdivisions in the human body
- 3. Discuss the function of the lymphoid cells and their role in immunity

### Respiratory System

- 1. Identify the important structures and functions of the respiratory system
- 2. Discuss the volumes and capacities of the lungs.

#### Digestive System

- 1. Identify the important structures and functions of the digestive system
- 2. Discuss the basics of metabolism, nutrition, and energetics.

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### Urinary System

- 1. Identify the important structures and functions of the urinary system
- 2. Discuss the formation of urine
- 3. Discuss the content of urine
- 4. Discuss fluid, electrolyte, and acid-base balance of the human body

#### Reproductive System

- 1. Identify the important structures and functions of the reproductive system
- 2. Discuss fertilization, development, and inheritance

### **Grading and Assignment Details**

### **Grading Information**

You will be given regular feedback during this course via the CANVAS gradebook. Grades will NOT be discussed over email but can be discussed via phone for privacy reasons.

Assessment will include the following:

- 1. Your grade for the course will come half (50%) from lecture and half (50%) from lab.
- 2. You will have daily comprehensive lecture tests that will account for 70% of your lecture grade or 35% of your total grade.
- 3. You will have a comprehensive lecture final exam, which account for 30% of your lecture grade or 15% of your total grade.

#### **Course grading:**

The averages of your daily tests, Friday discussions, and reading quizzes will be used to calculate your grade as follows:

- % Daily Lecture Test Grades x 35pts
- % Lecture Final Exam x 15pts

#### Lab Grading:

- 1. You will have **My Lab and Mastering Assignments** which will account for 25% of your grade. These are Homework assignments in which notes, books, and resources ARE allowed while the assignment is open.
- 2. You will have 1 **ID Practical** Each Week that is close book/closed note and no other resources during the exam. This practical will be 50 questions and you will have 30

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- minutes to complete it. You will have 2 attempts for Each ID exam. I will take your highest grade.
- 3. You will have 1 **Short Answer Practical** Each week that is close book/closed note and no other resources available during the exam. You will have 2 attempts for each portion. I will take your highest grade.
- 4. Video conference at least once per week that will account for 15% of your grade. You will schedule your time with me and I will send you a link to join in a conference. During this conference we will go over lab materials, and an oral quiz, and discuss anything pertaining to helping you complete the course successfully.

Homework: 25% ID Exams: 30%

Short Answer Exams: 15% Total Lab Grade: 100%

The Total Lab Grade will then be 50% of your overall class grade.

Grades: A- 90-100%

B- 80-89% C- 70-79% D- 60-69%

F- less than 60%

Late work will NOT be accepted without previous approval. Watch that CANVAS calendar closely and contact your instructor as soon as you think there might be a scheduling concern. We are willing to work with you but can only change due dates/times if given an adequate and timely explanation.

#### **Course Schedule**

# Participation/Attendance

You are required to participate in each assignment posted on CANVAS. The only way you can get the full benefits of this course is by engaging with the materials that are posted for you. There will be three ECHO lectures and a single lecture test every day of the summer semester. Online courses require time management skills and motivation. Keep this in mind as you begin this course and plan any other activities.

You should expect to treat this course as a full time job (8 hours a day is good for some but others may require more time for studying or testing). It is recommended that you set a schedule for yourself and set aside time each day for reading, watching lectures, taking tests, doing lab activities, and resting. Focusing on a topic for longer than 45 to an hour at a time will cause your brain to tire and will result in your not retaining most of what you study after that first hour (we will discuss this in the nervous system). To avoid this, schedule regular breaks (10-15 minutes is usually enough for most people), food, water, exercise, and sleep into your daily intersession schedule.

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### **Submitting Assignments**

- All assignments for this course are submitted on CANVAS
- Any technical difficulties that inhibit your ability to use CANVAS need to be conveyed to your instructor as soon as possible to avoid loss of points
- The lecture final exam will be taken using Proctorio; This program requires that you use the Google Chrome browser. You are required to have access to reliable internet and a computer with a Chrome browser before the end of the first day of class. See instructions on CANVAS in the "Course Information" module if you have any questions about using Proctorio. Many students find that if they do not regularly close their Chrome browser it will crash mid test so regularly close and reopen you browser and restart your computer at regular intervals to avoid this issue.

### **Technology Details**

### **Technology Requirements**

This course requires that you have access to a computer that has internet capabilities. You are responsible for having a reliable computer and internet connection with enough bandwidth to watch video lectures and perform video chats throughout the course. You will need to have access to, and be able to use, the following:

- 1. Google Chrome browser
- 2. CANVAS
- 3. HU Email
- 4. ECHO360 (link in CANVAS)
- 5. Mastering A&P (link in CANVAS course page)

# **Technical Support**

For technical assistance from 8:00 a.m. - 5:00 p.m., M-F, please contact the e-Learning Help

Desk at

Phone: 501-279-5201

Email: elearning@harding.edu Web: <u>E-Learning Web Address</u>

For Canvas assistance, search Canvas Guides.

#### **Technical Skills**

The following foundational skills are expected of all students who access Canvas. This list represents a minimum expectation of your ability to function effectively in a technical environment.

- 1. Access Harding's CANVAS and navigate course content
- 2. Written communication skills, email, attachments, uploading, and downloading capabilities
- 3. Online etiquette (netiquette), including privacy and security awareness
- 4. How to change browser / refresh a page / other basic computer tasks
- 5. Navigate the Internet for scholarly research
- 6. Utilize basic software / app programs needed for word processing, data analysis, and presentations

#### **Learning Management System**

CANVAS is the Learning Management System (LMS) used in this course. CANVAS sends an email confirmation to your Harding University email once an assignment is graded or an announcement is posted. CANVAS can be accessed using <a href="Harding's Canvas Login">Harding's Canvas Login</a>. For additional information relating to Canvas, including tutorials, and supported web browsers, please visit <a href="Harding's IST Canvas page">Harding's IST Canvas page</a> or <a href="Instructure Canvas Help Center">Instructure Canvas Help Center</a>.

Click here for Instructure Canvas Accessibility and Privacy Policies.

#### **Policies and Procedures**

# **University Policies**

Drop and Add Dates

The last day to add or drop a course without penalty for a summer course is the end of the first week of class. No students will be added to the course after the end of the first day.

### **University Assessment**

Harding University, since its charter in 1924, has been strongly committed to providing the best resources and environment for the teaching-learning process. The board, administration, faculty, and staff are wholeheartedly committed to full compliance with all Criteria of Accreditation of the Higher Learning Commission as well as standards of many discipline-specific specialty accrediting agencies. The university values continuous, rigorous assessment at every level for its potential to improve student learning and achievement and for its centrality in fulfilling the stated mission of Harding. Thus, a comprehensive assessment program has been developed that includes both the academic units and the administrative and educational support

units. Course-specific student learning outcomes contribute to student achievement of program-specific learning outcomes that support student achievement of holistic university learning outcomes. All academic units design annual assessment plans centered on measuring student achievement of program learning outcomes used to sequentially improve teaching and learning processes. Additionally, a holistic assessment of student achievement of university learning outcomes is coordinated by the university Director of Assessment used to spur continuous improvement of teaching and learning.

#### **Students with Disabilities Accommodations**

It is the policy for Harding University to accommodate students with disabilities, pursuant to federal and state law. Therefore, any student with a *documented disability* condition (e.g. physical, learning, or psychological) who needs to arrange reasonable accommodations must contact the instructor and the Office of Disability Services and Educational Access at the *beginning* of each semester. If the diagnosis of the disability occurs during the academic year, the student must self-identify with the Office of Disability Services and Educational Access *as soon as possible* in order to get academic accommodations in place for the remainder of the semester. The Office of Disability Services and Educational Access is located in Room 226 in the Student Center, telephone, (501) 279-4019.

Since some students in online courses will not have access to the Office of Disability Services and Educational Access located on the Searcy campus, the student must self-identify with the instructor of the course and submit documentation by fax (501-279-5702) or mail (915 E. Market Ave., Box 12268, Searcy, AR 72149-5615) to the Office of Disability Services and Educational Access on the Searcy campus. The necessary forms are available at the <a href="Student Life Disabilities Services Website">Student Life Disabilities Services Website</a>. Upon receiving the appropriate documentation approved by ADA guidelines, academic accommodations may be set up by the instructor via a telephone conference with the Director of Disability Services and Educational Access. If you have questions, please contact the Office of Disability Services and Educational Access at DisabilityServices@harding.edu or (501) 279-4019.

Since students on an international campus will not have access to the Office of Disability Services and Educational Access located on Harding University's Searcy campus, the student must self-identify with the International Studies office prior to being accepted for a semester abroad. Reasonable academic accommodations (e.g. extended time on tests, a quiet room/no distractions for testing, etc.) may be made by the faculty on an international campus. However, a doctor's statement will be required for a physical or psychological disability stating that the student is capable of fully participating in the rigorous travel itinerary (group and independent travel) as well as intense academics the semester he/she is abroad.

### **Code of Academic Conduct**

Students of Harding University are expected to be honorable and to observe standards of academic conduct appropriate to a community of Christian scholars. Harding University expects from its students a higher standard of conduct than the minimum required to avoid discipline. Harding expects its students to conduct themselves as responsible citizens in a Christian community. Enrollment at the University is viewed as a privilege that brings the attendant responsibilities and accountability. In order to encourage Christian living and growth, the University administers a student Code of Conduct. This code is provided to every student upon enrollment.

Upon registration to the University, students acknowledge and agree to abide by this code. Harding University reserves the right to refuse admission or dismiss students whose lifestyle is not consistent with the Christian principles for which Harding stands; and when the general welfare of the institution requires such action. Students suspended for disciplinary reasons during a semester may receive a grade of "F" in all courses for that semester. Please visit the appropriate Harding University Student Handbook (undergraduate or graduate/professional) for further details.

### **Academic Integrity Policy**

Honesty and integrity are characteristics that should describe each one of us as servants of Jesus Christ. As your instructor, I pledge that I will strive for honesty and integrity in how I handle the content of this course and in how I interact with each of you. I ask that you join me in pledging to do the same.

Academic dishonesty will result in penalties up to and including dismissal from the class with a failing grade and will be reported to the Director of Academic Affairs. All instances of dishonesty will be handled according to the procedures delineated in the <a href="Harding University">Harding University</a> catalog.

#### **Student Declaration**

Submitting an electronic document or assignment at Harding University constitutes an agreement with the following declaration:

- I affirm that the work submitted is of my own accord, is original, and contains the necessary and appropriate citations, where the work is of another source.
- I affirm that this assignment has not previously been submitted in <u>any</u> form.
- When submitting assignments to Turnitin, I acknowledge and adhere to its disclaimer statements.
- To uphold Harding University's Academic Integrity Covenant

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### **Academic Grievance Policy**

If a student believes that he or she has reason to question the decision of a faculty member with regard to the final grade received in a course or the denial of academic progression, a procedure has been established to resolve the grievance.

The student must initiate the written Academic Grievance Appeal within five business days after notification of the final grade in Pipeline or notification of denial of academic progression. In cases of both course grade and academic progression appeals, students are encouraged to first engage the involved faculty member in a good faith discussion (in person or via telephone or email) as the first step in resolving any concerns. If resolution is not achieved, a student may submit a written academic grievance by following the policy set forth in the Harding University catalog. All students should be familiar with this policy.

### **Time Management Expectations**

For every course credit hour, the typical student should expect to spend at least forty-five clock hours of concentrated attention on course-related work, including but not limited to time attending class, as well as out-of-class time spent reading, reviewing, organizing notes, preparing for upcoming quizzes/exams, problem solving, developing and completing projects, and other activities that enhance learning. Thus, for a three-hour course, a typical student should expect to spend at least one hundred thirty-five hours dedicated to the course.

#### **Dress Code**

You must adhere to the <u>dress code</u> for all work done in a course, where either a static or video image of yourself is submitted.

#### **Course Policies**

#### **Course Academic Conduct**

All acts of dishonesty in any academic work constitute academic misconduct. As a student of Harding University, you should avoid all cases that will be construed as academic misconduct. This includes, but is not necessarily limited to, the following:

- 1. *Cheating*: Use or attempted use of unauthorized materials, information, or study aids in any academic exercise.
- 2. *Plagiarism*: Representing the words, ideas, or data of another as your own in any academic exercise.
- 3. *Fabrication*: Falsification or unauthorized invention of any information or citation in an academic exercise.
- 4. Aiding and Abetting Academic Dishonesty: Intentionally helping or attempting to help another student commit an act of academic dishonesty.
- 5. Conduct unbecoming a professional while participating in a practicum, internship, field experience, or any similar academic experience: Conduct unbecoming a professional includes,

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but is not limited to, standards of conduct stated in any Harding University student handbooks as well as standards and codes of conduct associated with professional organizations related to the student's academic discipline.

- 6. Respect: Students are expected to respect other classmates' opinions and ideas at all times. Since online students cannot see body language and other nonverbal cues, it is essential to word comments carefully and to refrain from such things as sarcasm, which can be taken negatively in the online world. Read posts for content and then read posts for context. If the message can be taken negatively in any way, the suggestion is to re-word the post until you are sure that it will not be taken defensively. Another key issue is to refrain from certain discussions that evoke strong reaction. This may include such things as:
  - Stereotypes of any nature, whether it be profession or class of people
  - Politics, no matter your personal leanings, respect should be shown in differences of opinions and ideas
- 7. *Lurking*: Lurking is when a student signs on and reads the messages and does not post to the classroom. There are many reasons why a student may do this. Some students may feel uncomfortable sharing views in an open forum, may be unsure of the materials being covered, and/or may not want to say the same or similar things that other students have already posted. Discuss these issues with your instructor. Lurking is not counted as participation and will only lower your grade. Your instructor may be able to assist you in overcoming or resolving any issue that may drive lurking behavior.
- 8. *Drifting*: Drifting occurs when the discussion goes in another direction than expected. Drifting is normal and encouraged in the online environment. However, the drifting must be related to academics and the materials discussed in the classroom. The instructor will encourage positive drifting, but will discourage inappropriate drifting and may ask students to take it to the CHAT room or to discuss it through personal email. Inappropriate drift will not be counted toward the participation grade.

# **Canvas or Internet Outage Policy**

As a learner, you must be able to manage technical difficulties such as power outages, connection problems, and other technical issues. Technology will sometimes fail. For this reason, it is advisable to complete your assigned work prior to the due date.

#### Instructor

If your instructor experiences power outage, Internet service outage, LMS (Canvas) or other technical issues that significantly affect the timing of distributing online assignments, grading assignments, or significantly interferes with communicating with students, adjustments to due dates will be made.

#### Student

If you experience power outage, Internet service outage, LMS (Canvas) or other technical issues, nonetheless you are held responsible for completing your assigned work in a timely manner. Harding University is not responsible for the student's access to a working computer or reliable Internet service. Internet outage or having computer issues

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is not an excuse for late work. A backup plan for reliable Internet service and working computer is prudent.

### **Testing Issues**

If you experience issues with Internet connection, power outage, computer, or LMS (Canvas) and are unable to complete or submit a test, do not panic. Your first step is to contact your instructor who will provide you instructions on how to proceed. You may also report a problem to the E-learning help desk (501-279-5201). Response time is dependent on the time of day. The E-learning help desk is manned Monday through Friday from 8:00 am - 5:00 pm.

#### **Inclement Weather**

If a meeting time must be delayed due to inclement weather, you will be notified as soon as possible via email and CANVAS with instructions. If you are unable to perform the necessary course activities due to weather, contact your professor as soon as you are safely able and accommodations will be made.

### **Academic Support Services**

Harding offers a wide variety of academic support services. While this list is not all-inclusive, the following links may be useful to students (some services may not be applicable for graduate or professional students):

- Library
- Testing
- Tutoring
- Writing Center

# **Student Support Services**

Harding offers a wide variety of student support services. While this list is not all-inclusive, the following links may be useful to students (some services may not be applicable for graduate or professional students):

- Advising
- Registration
- Financial Aid
- Student Life
- Counseling
- Career Services

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# **Changes to Syllabus Notice**

The instructor reserves the right to modify and update any part of the syllabus where necessary. It is your responsibility to stay up to date with any changes communicated by the professor.

References

American Psychological Association Website. (2014). Retrieved from https://www.apa.org/about/apa/archives/apa-history.aspx