

Course Number: NBAN 206 (including upper and lower limb)

Title: Online Human Anatomy Laboratory (with Upper and Lower Limbs)

Format: Online course tailored to asynchronous distance learners

Credit Hours: 2 credit hours

Course Description:

An introductory anatomy laboratory utilizing human cadaver dissection videos and interactive learning activities to examine the relationships and organization of the major structures within the thorax, abdomen, pelvis, head/neck, back, upper and lower limb regions of the body. Students are expected to learn the identification of human gross structures and understand their relationship to relevant clinical applications. Pro-sections and videos will be shown in each region of the body enabling the organs and structures to be displayed fully and clearly. A systems approach is used to prepare students to understand relationships among structures that contribute to the functioning of organ systems. A combination of structure identification exercises and interactive learning activities will help to develop student knowledge and critical thinking skills as applied to anatomical terminology and concepts.

The two credit hours course includes additional upper and lower limb modules that will help students interested in preparing for professional schools such as medical, dental, physical therapy and nursing.

Course Objectives:

Students successfully completing this course will be able to:

- 1. Name and apply anatomical terminology for body positions, orientation, movements, and relationships of structures.
- 2. Identify the structure and function of the musculoskeletal system, including the major bones of the axial and appendicular skeleton, structural features of these bones and their functional relevance, and major muscle groups of the body and their functions.
- 3. Identify the structure and function of the cardiovascular system of the body, including: normal adult and fetal circulations; chambers, valves, great vessels and blood supply of the heart; distinctions between arteries and veins; flow of oxygenated and de-oxygenated blood through the

body; major arteries supplying limbs, thoracic, abdominal and pelvic viscera, organs of the central nervous system, and the venous return from those same structures; lymph nodes, lymph circulation and relationships to blood circulation.

- 4. Identify the structure of the respiratory system, its relationship to the cardiovascular system for exchange of blood gases, and relationship to other organs of the thoracic cavity.
- 5. Identify the structures of the digestive system and the relationships among these organs.
- 6. Identify the structures of the urinary system and relationships to other abdominal and pelvic organs.
- 7. Identify the structure of reproductive organs, including prenatal development and positions of gonads, pregnancy-related anatomical changes, stages of parturition, as well as normal adult structures.
- 8. Identify the structure and basic functions of the components of the central and peripheral nervous systems, and associated structures, such as meninges.
- 9. Identify muscles, vessels, and nerves of the upper limb and learn how these structures work together to provide movement.
- 10. Identify muscles, vessels, and nerves of the lower limb and learn how these structures work together to provide movement.

Prerequisites:

One semester of introductory undergraduate biology (4 credit hours with laboratory). Recommended (not required) – A general anatomy course such as NBAN 205 (an introductory online human anatomy course offered at West Virginia University Online). Should be taken before or concurrent with NBAN 206.

Technical Skills Requirements:

- 1. Using email with attachments.
- 2. Navigate the web.
- 3. Download and install software.
- 5. Consult software tutorials and other online sources as a method of learning software features.

Helpful Technical Links:

eCampus Tutorial - help learn about WVU eCampus

<u>Web Browser Checker</u> - insures your computer's web browser is compatible and has the required plug-ins

WVU Help Desk contact information:

Phone: 304-293-4444
Toll Free: 1-877-327-9260
email: ITSHelp@mail.wvu.edu

Course Communications:

We use MIX to communicate with you during NBAN 206, so it is important to check your MIX email throughout the course. **Do not** depend on your personal email account; use your WVU MIX email so you don't miss important course information and communications.

For questions on course, please contact Dr. Dawn Hunter (dhunter@mix.wvu.edu). I will respond to your email within 24 hours.

Schedule:

Asynchronously delivered course via the Internet. The course is generally offered every semester including the summer.

Location:

The West Virginia University e-Campus website: http://ecampus.wvu.edu.

Required Textbook (used for all lesson assignments):

<u>Learning Human Anatomy: A Laboratory Text and Workbook</u>, Fourth Edition, Guy, Julia F., Pearson/Prentice Hall Health.

IBSN 978-0-13-503560-3

DO NOT NEED Anatomy Lab CD-ROM that comes with workbook (A video lab guide was created by Dr. Heather J. Billings in the Department of Neurobiology and Anatomy at West Virginia University Health Sciences Center and will be utilized in the lab course). It will be provided on the WVU eCampus NBAN 206 Website.

Textbook may be purchased from:

- 1. WVU Health Sciences Center Bookstore: 112-G Health Sciences Center Morgantown, WV 26506, 304-293-4849
- 2. Amazon.com
- 3. **Usedtextbooks.net** (highly recommended)

Please note: The textbook is needed at the start of the course. Any delay in having it will affect your course performance.

Media:

Module overviews, lecture notes, and other textual and multimedia resources will be provided on the WVU eCampus NBAN 206 Website.

Required Assignments:

Course Content is Divided into Six Sequential Modules Presented over the Semester. Each Module has 2 or 3 Sections.

In Each Section, Students Will Do the Following:

- 1. Read To-Do List
- **2.** Check Learning Objectives

- **3.** Complete Lessons in Required Workbook (*Learning Human Anatomy: A Laboratory Text and Workbook*, Fourth Edition, Guy, Julia F., Pearson/Prentice Hall Health.
- **4.** Read and Study the Online Web Notes.
- **5.** Watch Dissection Video and Complete the Online Worksheet (not in all sections).
- **6.** Successfully Complete Interactive Practice Activities and Review/Dissection Quizzes **activities and quizzes are NOT GRADED**, but provide immediate feedback on your performance. The interactive exercises are a great way of studying the course content in each section and can be taken as many times as you like. The practice activities and quizzes are a great way to gauge how well you know the course material!

Hint: Questions from the interactive practice activities and quizzes will be found on the scheduled module exams!!

In Each Module, Students Will Do the Following:

1. Discussion Forum (with grading rubric) will be posted on the discussion board at the beginning of each module.

In the discussion forum, students are asked questions and are responsible to post answers, interact, and provide additional thought provoking questions/comments to the discussion. A forum is posted for each module and you have the entire duration of that module to join, interact, and post questions to the discussion. A rubric is posted with each discussion forum to provide the grading criteria used in the evaluation of student responses. **Please Note:**At least five responses per student is required in each module grading rubric. A total of four discussion forums will be posted and each one is worth 12 points. Please take advantage of the Discussion Forum, it is a great way to discuss important anatomical concepts with the instructor and your fellow students.

2. Practice exam (not graded) will be posted for each module (one week before scheduled module exam).

Taking the practice exams will **NOT** give you points but are a great way to become familiar with the eCampus Assessment format (used for the scheduled module exams) and as a way to gauge your studies for each module. The practice exams heavily reflect what you can expect on the scheduled module exams. Once posted, a practice exam can be taken as often as you like.

3. SCHEDULED module lab exam (graded) will be posted for each module.

Exams are timed; once you begin an exam you will have 70 minutes to complete it. A total of six scheduled module exams will be taken in the course. Each exam has 50 multiple-choice questions and each question is worth two points making each exam worth 100 points.

Testing and Grading:

SIX GRADED DISCUSSION FORUMS, one for each module. Each discussion forum will be posted with a grading rubric to provide the grading criteria used in the evaluation of student responses. Please Note: At least five responses per student is required in each module. You will have the entire duration of that module to join, interact, and post questions to the discussion. Each discussion forum is worth 12 points.

FOURTEEN GRADED VIDEO DISSECTION WORKSHEETS, one for each video dissection. A worksheet will be posted with each dissection video. Each video worksheet has varied point values (see below in course outline).

SIX GRADED SCHEDULED MODULE LAB EXAMS, one for each of the six modules. Each scheduled module exam will be timed (once you begin you will have 70 minutes to complete it) and will consist of 50 multiple choice questions. Each question is worth two points, for a total of 100 points for each exam.

Course Outline:

Module One (Introduction to the Body) Graded Material - 227 Total Points

- Discussion Forum 12 points
- Axial Skeleton Video Dissection Worksheet 55 points
- Appendicular Video Dissection Worksheet 60 points
- Scheduled Module Lab Exam 100 points

Test the Comprehension of the Learning Objectives in All 3 Sections of Module 1:

Section 1 – Organization and Overview of the Body Systems

Section 2 – Axial Skeleton and Back Muscles

Section 3 – Appendicular Skeleton

Module Two (Thorax and Respiratory System) Graded Material – 242 Total Points

- Discussion Forum 12 points
- Thoracic Wall, Lungs, and Airways Video Dissection Worksheet 60 points
- Heart and Blood Vessel Video Dissection Worksheet 70 points
- Scheduled Module Lab Exam 100 points

Test the Comprehension of the Learning Objectives in Sections 1 and 2 of Module 2:

Section 1 – Thorax and Respiratory System

Section 2 – Heart and Blood Vessels

Module Three (Abdomen and Pelvis) Graded Material - 292 Total Points

- Discussion Forum 12 points
- Abdominal Wall Video Dissection Worksheet 60 points
- Abdomen and Urinary System Video Dissection Worksheet 60 points
- Reproductive System Video Dissection Worksheet 60 pints
- Scheduled Module Lab Exam 100 points

Test the Comprehension of the Learning Objectives in All 3 Sections of Module 3:

Section 1 – Muscles of the Abdomen and Pelvis

Section 2 – Digestive and Urinary Systems

Section 3 – Male and Female Reproductive Systems

Module Four: (Nervous System) Graded Material - 212 Total Points

- Discussion Forum 12 points
- Brain and Cranial Nerves Video Dissection Worksheet 60 points
- Spinal Cord and Sympathetic Chain Video Dissection Worksheet 40 points
- Scheduled Module Lab Exam 100 points

Test the Comprehension of the Learning Objectives in Sections 1 and 2 of Module 4:

Section 1 – Brain and Cranial Nerves

Section 2 – Spinal Cord and Sympathetic Chain

Module Five: (Upper Limb) Graded Material - 152 Total Points

- Discussion Forum 12 points
- Arm Video Dissection Worksheet 40 points
- Scheduled Module Lab Exam 100 points

Test the Comprehension of the Learning Objectives in Sections 1 and 2 of Module 5:

Section 1 – Muscles of Upper Limb

Section 2 – Blood Vessels and Nerves of Upper Limb

Module Six: (Lower Limb) Graded Material - 262 Total Points

- Discussion Forum 12 points
- Gluteal Video Dissection Worksheet 30 points
- Posterior Thigh Video Dissection Worksheet 40 points
- Anterior Thigh Video Dissection Worksheet 40 points
- Leg Video Dissection Worksheet 40 points
- Scheduled Module Lab Exam 100 points

Test the Comprehension of the Learning Objectives in Sections 1 and 2 of Module 6:

Section 1 – Muscles of Lower Limb

Section 2 – Blood Vessels and Nerves of Lower Limb

Overall Course Points:

Six Question/Answer Discussion Forum, 12 Points Each = 72 Total Points Fourteen Video Dissection Worksheets, Point Value for Each Varies = 715 Total Points Six Scheduled Module Lab Exams, 100 points each = 600 points Total Points for Course = 1387 points

Grading Scale:

```
Total Points Letter Grade
1387 - 1249 Points = A (100-90%)
1248 - 1110 Points = B (89-80%)
1109 - 971 Points = C (79-70%)
970 - 888 Points = D (69-64%)
887 - 000 Points = E (63-0%)
L = Incomplete (failure to complete the
```

I = Incomplete (failure to complete the course on time)

Grading Policy: If personal difficulties prohibit taking an exam on its scheduled date, students must contact the Course Director (Dr. Dawn Hunter) prior to the scheduled module exam date.

Attendance:

Because this course is offered online, attendance will not be taken into account for grading purposes. Overall success, however, is vitally dependent on interaction with the course material and participation in course exercises. It is therefore recommended that students take the initiative

to review all course material, complete all text and online exercises, and take all practice quizzes. If difficulties accessing information on the web site are encountered, contact the Course Director.

Student Conduct Code and Academic Honesty:

The West Virginia University policy regarding cheating and academic dishonesty will be strictly adhered to in this course. **It is expected that students will take exams independently.** For more information consult this link: **WVU Academic Standards.**

Social Justice Statement:

- 1. West Virginia University is committed to social justice. We concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and nondiscrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.
- 2. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise us and make appropriate arrangements with Disability Services by telephone at 304-293-6700 or email: disserv@wvu.edu. For more information consult this link: WVU Division of Diversity, Equity and Inclusion.

Accessibility:

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Accessibility Services.

Contact the WVU Office of Accessibility Services

Phone: 304-293-6700 Email: disserv@wvu.edu.

Website: WVU's Office of Accessibility Services (OAS)

Learn About Blackboard Accessibility

Website: Blackboard Accessibility Resources

Updated Syllabus on 3/20/17