

*This syllabus is provided as a general informational guide. Some of the information may vary depending on the specific course section and instructor. Different sections of the same course may require different textbooks. Verify the section specific textbook information in the CUNY's Academic Course Schedule Web Page. Modifications of the grading system presented here will be communicated by the instructors of the sections when they meet the class.*

**BOROUGH OF MANHATTAN COMMUNITY COLLEGE**  
**The City University of New York**  
**Department of Science**

**Anatomy & Physiology II**  
**Bio 426**  
**Fall 2020**

**Lecture hours: 3**  
**Lab hours: 3**  
**Credits: 4**

**Instructor Information:** \_\_\_\_\_  
Name
E-mail/phone
Office

**Course Description**

This is the second semester of a two-semester course that explores the human body as an integrated, functional complex of systems. Terminology, structure and function of each organ system, and the interrelationships between systems are emphasized.

**Prerequisites/Co-requisites:**

BIO 425 & CHE 118 or CHE 121, or departmental approval

**NOTE:** BIO 426 does not meet the science requirement in the liberal arts curriculum.

<b>Course Student Learning Outcomes</b>	<b>Measurements</b>
1. Students will be able to explain the relationship between anatomical features and functions of each organ system.	1. Quizzes and examinations.
2. Students will be able to identify structures associated with each of the organ systems.	2. Laboratory exercises and virtual lab activities and practicals.
3. Students will be able to discuss concepts related to anatomy and physiology which can be applied to disease states.	3. Quizzes and examinations.

	<b>General Education Learning Outcomes</b>	<b>Measurements</b>
<b>X</b>	<b>Quantitative Reasoning-</b> Students will be able to use quantitative skills and the concepts and methods of mathematics to solve problems.	<b>Laboratory exercises and mathematically based test questions.</b>
<b>X</b>	<b>Scientific Reasoning-</b> Students will be able to apply the concepts and methods of the natural sciences.	<b>Students will assimilate class and laboratory information in order to answer questions related to the health field.</b>

**Evaluation of Students:** The course will be graded on the following (as determined by instructor):

- **Lecture: 70-80%**
- **Lab: 20-30%**

**Use of Technology:**

- Blackboard and on-line textbook (Connect) module.
- Other technology will be required per the instructor for supplementing online lectures and lab activities.

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## **REQUIRED TEXTBOOK & READINGS:**

*Anatomy and Physiology: The Unity of Form and Function, (9<sup>th</sup> edition\*\*\*)*, by Saladin, Kenneth S., McGraw-Hill Publishers, 2020.

Choose one of the following versions:

- Custom Loose-Leaf with *ConnectPlus*: **ISBN #9781264370368** (\$178.55, College Bookstore)
- e-text with *ConnectPlus*: through instructor's *Connect* site (**\$125 – BEST PRICE**)

**\*\*\*Note: Students who have an active 8<sup>th</sup> edition access from Bio425 will have access to the 9<sup>th</sup> edition *Connect* materials.**

## **LABORATORY MANUAL:**

*Anatomy & Physiology Laboratory Manual for BIO 426 (BMCC custom version)*, by Goodwyn, L. and Salm, S., Morton Publishing Company, 2014:

- BMCC custom version: **ISBN # 9781617313462** (\$44.65, only available from the College Bookstore. Students should order their lab manual ASAP and it will be mailed to them from the Bookstore.

## **OTHER REQUIRED MATERIALS:**

*McGraw-Hill *ConnectPlus*: on-line course material for Anatomy and Physiology, 9<sup>th</sup> ed. (packaged with BMCC custom loose-leaf or hardcover edition or available from the publisher's website).*

**COLLEGE BOOKSTORE** (all books can be ordered online):

<https://bmcc.bncollege.com/shop/bmcc/page/find-textbooks>

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**BMCC is committed to the health and well-being of all students. It is common for everyone to seek assistance at some point in their life, and there are free and confidential services on campus that can help.**

**Single Stop** <https://www.bmcc.cuny.edu/student-affairs/single-stop/>, room S230, 212-220-8195. If you are having problems with food or housing insecurity, finances, health insurance or anything else that might get in the way of your studies at BMCC, come by the Single Stop Office for advice and assistance. Assistance is also available through the Office of Student Affairs, S350, 212-220- 8130.

**Counseling Center** <https://www.bmcc.cuny.edu/student-affairs/counseling/>, room S343, 212-220-8140. Counselors assist students in addressing psychological and adjustment issues (i.e., depression, anxiety, and relationships) and can help with stress, time management and more. Counselors are available for walk-in visits.

**Office of Compliance and Diversity** <https://www.bmcc.cuny.edu/about-bmcc/compliance-diversity/>, room S701, 212-220-1236. BMCC is committed to promoting a diverse and inclusive learning environment free of unlawful discrimination/harassment, including sexual harassment, where all students are treated fairly. For information about BMCC's policies and resources, or to request additional assistance in this area, please visit or call the office, or email [olevy@bmcc.cuny.edu](mailto:olevy@bmcc.cuny.edu), or [twade@bmcc.cuny.edu](mailto:twade@bmcc.cuny.edu). If you need immediate assistance, please contact BMCC Public safety at 212-220-8080.

**Office of Accessibility** <https://www.bmcc.cuny.edu/student-affairs/accessibility/>, room N360 (accessible entrance: 77 Harrison Street), 212-220-8180. This office collaborates with students who have documented disabilities, to coordinate support services, reasonable accommodations, and programs that enable equal access to education and college life. To request an accommodation due to a documented disability, please visit or call the office.

### **Class Participation**

Participation in the academic activity of each course is a significant component of the learning process and plays a major role in determining overall student academic achievement. Academic activities may include, but are not limited to, attending class, submitting assignments, engaging in in-class or online activities, taking exams, and/or participating in group work. Each instructor has the right to establish their own class participation policy, and it is each student's responsibility to be familiar with and follow the participation policies for each course.

### **BMCC Policy on Plagiarism and Academic Integrity Statement**

Plagiarism is the presentation of someone else's ideas, words or artistic, scientific, or technical work as one's own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism. Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's Web site, <https://www.bmcc.cuny.edu/>. For further information on integrity and behavior, please consult the college bulletin (also available online <https://www.bmcc.cuny.edu/wp-content/uploads/ported/communications/pdfs/catalog/current.pdf>).

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## LECTURE

<b><u>LECTURE SESSION</u></b>	<b><u>TOPICS</u></b>	<b><u>CHAPTER</u></b>
1	Blood	Chapter 18
2	Blood/ Heart	Chapter 18-19
3	Heart	Chapter 19
4	Blood Vessels/Blood Pressure	Chapter 20
5	Lymphatics/ Immune System	Chapter 21
6	Respiratory System	Chapter 22
7	Respiratory/Urinary System	Chapter 22-23
8	Urinary System	Chapter 23
9	Water, Electrolytes, & pH	Chapter 24
10	Digestive System	Chapter 25
11	Nutrition and Metabolism	Chapter 26
12	Male Reproductive System	Chapter 27
13	Female Reproductive System	Chapter 28
14	Development, Growth and Aging	Chapter 29
15	Review and Final Examination	

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### **LABORATORY\*\*\***

<b><u>LAB SESSION</u></b>	<b><u>TOPICS</u></b>	<b><u>PAGES</u></b>
1	Blood and Blood Cells	Ex. 1 (pages 1-10)
2	Using the Hemocytometer	Ex. 2 (pages 11-18)
3	The Heart/mammal heart dissection**	Ex. 3 (pages 19-26)
4	Blood Vessels	Ex. 4 (pages 27-37)
5	Cardiovascular Physiology	Ex. 5 (pages 39-45)
6	Immune System	Ex. 6 (pages 47-56)
7	Respiratory Anatomy	Ex. 7 (pages 57-65)
8	Respiratory Physiology	Ex. 8 (pages 67-78)
7	Urinary System/mammal kidney dissection**	Ex. 9 (pages 79-87)
8	Digestive System	Ex. 10 (pages 89-97)
9	Fetal Pig Dissection**	Ex. 11 (pages 99-107)
10	Female Reproduction	Ex. 12 (pages 109-116)
13	Male Reproductive	Ex. 13 (pages 119-124)
14	Fertilization and Early Development	Ex. 14 (pages 127-135)
15	Cumulative Practical***	

#### **\*\*\*Notes for distance lab sessions:**

- Distance labs will include a combination of lab manual activities on inclusive pages and virtual simulations and/or videos to substitute “wet lab” activities, including dissections.
- Distance practical examinations are at the discretion of the instructor.