

## **DEPARTMENT OF KINESIOLOGY AND HEALTH – FALL 2023**

**Course: Functional Human Anatomy**

**Number: 01:377:223:04**

**Credits: 3**

**Prerequisite: Gen Bio II (01:119:116)**

**Class meets on Tuesdays, 2:00-3:20 PM**

**Location: BRR-5071 (Rutgers Business School building on Livingston Campus)**

**This course is hybrid, which means you will have access to recorded lectures and slides for each lesson on Canvas and will be expected to watch these as scheduled on the syllabus. Class will meet once a week in-person on Tuesdays from 2:00-3:20 PM in BRR-5071. Attendance is mandatory.**

**Instructor: Rudraneil Mukherjee, MBS (please call me Rudy)**

**Contact Information:** rudrmukh@kines.rutgers.edu

- Use your Rutgers email to contact the instructor
- Identify yourself with your name and course name and section number
- Emails will be answered within 1-2 business days

**Office Hours: Please ask questions immediately prior/after the in-person sessions. If you have anatomy lab with me, then you can also ask lecture questions during your lab time. I would prefer that you email me so that we can schedule a Zoom session where we can discuss material and I can answer your questions. Thanks.**

### **Technology Requirements**

You will need a computer/tablet and access to the internet.

Course platform can be found on Canvas:

<https://canvas.rutgers.edu>

Please visit the [Rutgers Student Tech Guide](#) page for resources available to all students. If you do not have the appropriate technology for financial reasons, please email Dean of Students [deanofstudents@echo.rutgers.edu](mailto:deanofstudents@echo.rutgers.edu) for assistance. If you are facing other financial hardships, please visit the Office of Financial Aid at <https://financialaid.rutgers.edu/>.

### **Department Learning Goals Met by this Course**

The purpose of this course is to study all of the body's organs and structures with a review of body systems and their relationships for overall organism function. Students will gain a foundation for further study toward careers in healthcare and medicine. This course partially fulfills the Exercise Science requirement for Functional Human Anatomy. The 1-credit lab class must be taken to complete the requirement.

**Additional Learning Goals Met by this Course**

1. Understand and correctly apply descriptive anatomical and directional terminology.
2. Summarize how connective tissues establish the framework of the body.
3. Describe the structure and function of the skeletal system and various joints.
4. Compare and contrast the gross and microscopic anatomy of the muscular system.
5. Describe the anatomical organization and function of the nervous system and its subdivisions.
6. Identify the major blood vessels and circulatory routes of the cardiovascular system.
7. Describe the anatomical organization of the lymphatic system and how it interacts with other systems and tissues to defend the body.
8. Compare and contrast the anatomy and physiology of the respiratory system.
9. Describe the anatomy and physiology of the endocrine system.
10. Describe the anatomy and physiology of the digestive, urinary, integumentary, and reproductive systems.
11. Understand anatomical changes pertaining to pregnancy and embryology

**List of Recommended Books (these textbooks are optional):**

- Martini, Tallitsch and Nath. Human Anatomy, Ninth Edition. 2018. ISBN: 9780134296036
- Gilroy, MacPherson and Ross. Atlas of Anatomy, Third Edition. 2016. ISBN: 9781604067453

**Self-Reporting Absence Application**

<https://sims.rutgers.edu/ssra/>

If you have been told to quarantine, or are experiencing symptoms of any transmittable disease, please remain at home and do not attend in-person class meetings. Email the instructor for guidance on how to proceed with missed material.

**Class Procedures**

Students are responsible for the following:

- Reviewing the lecture material provided on Canvas for each lecture
- Attending **all** class meetings - not all material/research presented will be on Canvas PowerPoints or in textbooks
- Reading class announcements on Canvas
- Adhering to Rutgers Academic Integrity Policy
- Seeking help from the professor if having difficulty with any portion of the course

<b>Grading</b>	Quizzes	5%	5 pts.
	Homework	25%	25 pts.
	Exam #1	20%	20 pts.
	Exam #2	20%	20 pts.
	Exam #3 (Final)	25%	25 pts.
	Pop Quizzes/Participation	5%	5 pts.
		<b>100%</b>	<b>100 pts.</b>

Using the above percentages, final grades will be assigned as follows:

A = 90% or higher	C = 70 to 74.99%
B+ = 85 to 89.99%	D = 60 to 69.99%
B = 80 to 84.99%	F = 59.99% or lower
C+ = 75 to 79.99%	

**There is no curving or extra credit in this course!!!**

### Quizzes

There will be quizzes posted on Canvas under Assignments in conjunction with each recorded lecture. Refer to the Canvas schedule for dates. These are for study/review purposes and are worth 5% of the final grade. These will serve to help keep the student on pace with the scheduled lecture material and provide an opportunity to further synthesize material taught in the lectures. You may enter and work on a quiz as much as you'd like but be sure to click "Submit" for credit when you are happy with all your answers. Quizzes must be completed by the due date. You will lose 10% of your quiz grade for every day the quiz is late.

### Homework

There will be five homework assignments that when combined will be worth 25% of the final grade. Homework will be posted on Canvas under Assignments. You will have access to the homework about 5 days before it is due. Refer to the Canvas schedule for dates. Homework is "open book" and is an opportunity to further understand material taught. You may enter and work on the homework as much as you'd like, but be sure to click "Submit" for credit when you are happy with all your answers. Some questions have multiple parts. There is no partial credit. The entire answer must be correct (all parts) for credit. Homework must be completed by the due date. You will lose 10% of your homework grade for every day it is late.

### Exams

There will be three exams that will comprise 65% of the final grade. Refer to the Canvas schedule for dates. The exams will primarily consist of objective-type questions, i.e. multiple choice, T/F, and fill-in-the-blanks. The final exam will be cumulative in that there will be questions requiring the student to apply material taught earlier in the course. Exams will be administered on Canvas and will be given **in the classroom on the scheduled date**. The final exam will be administered in-person on Canvas during the final exam period, based on Rutgers Final Exam Schedule. For all exams, **it will be important to arrive on time and to bring your RU ID**.

### Pop Quizzes

There will be pop quizzes given in class to gauge participation in the course. They will consist of a few questions from material covered prior within the course and will not be graded but will account for the 5% participation portion of your final grade. Pop quizzes will also give you an idea of how well you are keeping up with material, how well you are learning the material, and how well you are able to apply what you've learned. These will also serve as a way for the instructor to gauge effectiveness of teaching and to monitor your ability to succeed in the course.

**Tentative Class Outline – Subject to Change**

<b>Class Dates</b>	<b>Lessons/Assignments</b>
9/5	Welcome/Syllabus Review /Course Procedures
	Intro to Functional Human Anatomy; <b>Quiz 1 Due 9/11</b>
9/12	Connective Tissue; <b>Quiz 2 Due 9/15</b>
	Skeletal System; <b>Quiz 3 Due 9/18</b>
	<b>Homework 1 Due 9/19</b> – Covers Intro, CT, Skeletal Syst
9/19	Axial Skeleton – Skull; <b>Quiz 4 Due 9/22</b>
	Axial Skeleton – Vertebral Column and Thoracic Cage; <b>Quiz 5 Due 9/25</b>
9/26	Muscular System; <b>Quiz 6 Due 9/29</b>
	Nervous System Overview; <b>Quiz 7 Due 10/2</b>
10/3	<b>Exam 1</b> (covering material up to and including Nervous Syst Overview lecture)
	Nerve Plexuses; <b>Quiz 7a Due 10/9</b>
10/10	Brain and Cranial Nerves; <b>Quiz 8 Due 10/13</b>
	Autonomic Nervous System (ANS); <b>Quiz 9 Due 10/16</b>
	<b>Homework 2 Due 10/17</b> – Covers Nerve Plexuses, Brain and CNs, ANS
10/17	Respiratory System; <b>Quiz 10 Due 10/20</b>
	Cardiovascular System; <b>Quiz 11 Due 10/23</b>
10/24	Lymphatic System; <b>Quiz 12 Due 10/27</b>
	<b>Homework 3 Due 10/30</b> – Covers Resp Syst, CV Syst, Lymph Syst
	Endocrine System; <b>Quiz 13 Due 10/30</b>
10/31	Digestive System; <b>Quiz 14 Due 11/3</b>
	Urinary System; <b>Quiz 15 Due 11/6</b>
11/7	<b>Exam 2</b> (covering material from Nerve Plexuses through Digestive Syst)
	Integumentary System; <b>Quiz 16 Due 11/13</b>
11/14	Axial Musculature; <b>Quiz 17 Due 11/17</b>
	<b>Homework 4 Due 11/20</b> – Covers Urinary Syst, Integumentary Syst, Axial Musc
	Upper Extremity - Skeletal; <b>Quiz 18 Due 11/20</b>
11/21	No Class (Tues Follows a Thursday Schedule) Happy Thanksgiving!
11/28	Upper Extremity – Musculature; <b>Quiz 19 Due 12/1</b>
	Lower Extremity - Skeletal; <b>Quiz 20 Due 12/4</b>
	<b>Homework 5 Due 12/5</b> – Covers UE Skel, UE Musc, LE Skel
12/5	Lower Extremity – Musculature; <b>Quiz 21 Due 12/8</b>
	Reproductive System; <b>Quiz 22 Due 12/11</b>
12/12	Pregnancy and Embryology; <b>Quiz 23 Due 12/14</b>
TBD	<b>Final Exam</b> (covering material from Urinary System through Pregnancy and Embryology and some cumulative questions)

**Make-up Policy**

No make-ups or extensions will be offered for missed assignments except for one of the following situations, provided that the instructor is notified in advance:

- Athletic or other Rutgers sponsored trips: Travel dates and times accompanied by a signed memo from the group's advisor/coach must be presented to the instructor prior to travel dates.
- Religious observances.

In the event of extenuating circumstances: This includes (but is not limited to) family emergencies, severe illnesses, accidents, etc. it will be up to the prerogative of the instructor whether or not you will be allowed to take the make-up or receive an extension.

**Current Academic Integrity Policy**

You have what it takes to do well in this course. Before contemplating any misconduct, please see the instructor. There are better ways to get a good grade – ways that will make you feel good about yourself – other than misconduct. If you do engage in misconduct, you will be dealt with accordingly.

<https://nbprovost.rutgers.edu/academic-integrity-students>

Rutgers University takes academic dishonesty very seriously. By enrolling in this course, you assume responsibility for familiarizing yourself with the Academic Integrity Policy and the possible penalties (including suspension and expulsion) for violating the policy. As per the policy, all suspected violations will be reported to the Office of Student Conduct. Academic dishonesty includes (but is not limited to):

- Cheating
- Plagiarism
- Aiding others in committing a violation or allowing others to use your work
- Failure to cite sources correctly
- Fabrication
- Using another person's ideas or words without attribution—re-using a previous assignment
- Unauthorized collaboration
- Sabotaging another student's work

If in doubt, please consult the instructor. Please review the [Academic Integrity Policy](#).

**Student Resources**

**Learning Centers:** <https://rlc.rutgers.edu/>

**Academic Advising for SAS students:** <https://sasundergrad.rutgers.edu/advising/advising>

**Dept. of Kinesiology & Health Academic Advising:** <https://kines.rutgers.edu/academics/academic-advising>

Academic Advisor: Lin Williams; Email: [lin.williams@rutgers.edu](mailto:lin.williams@rutgers.edu)

**Student Success Resources:** <https://success.rutgers.edu/>

**Diversity & Inclusion:**

The Department of Kinesiology and Health supports an inclusive learning environment wherein diversity and authenticity are valued. We are committed to creating a culture of equality that respects the diverse voices of our students, faculty and staff. We will continuously strive to create a curriculum and academic environment to reflect the community we serve, and drive innovation, social responsibility and excellence. Our diversity in thought, skill, and academic discipline is a resource and strength, which stands to benefit the whole and positively contribute to University and global reach.

**Student-Wellness Services**

Service	Description	Contact Information
<b>Student Accommodations</b>	If you are a student in need of accommodations, please register with the <b>Office of Disability Services</b> in order to initiate the accommodations process. Please present your letter of accommodation to your instructor during the first week of the semester. Please note that accommodations are not retroactive.	(848) 445-6800 Lucy Stone Hall, Suite A 145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 <a href="https://ods.rutgers.edu/">https://ods.rutgers.edu/</a>
<b>Just In Case Web App</b>	Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.	<a href="http://health.rutgers.edu/medical-counseling-services/counseling/caps-next-step/">http://health.rutgers.edu/medical-counseling-services/counseling/caps-next-step/</a>
<b>Counseling, ADAP &amp; Psychiatric Services (CAPS)</b>	CAPS is a university mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.	(848) 932-7884 17 Senior Street, New Brunswick, NJ 08901 <a href="http://www.rhscaps.rutgers.edu/">www.rhscaps.rutgers.edu/</a> Medical Services: <a href="http://health.rutgers.edu/medical-counseling-services/medical/">http://health.rutgers.edu/medical-counseling-services/medical/</a> Counseling Services: <a href="http://health.rutgers.edu/medical-counseling-services/counseling/">http://health.rutgers.edu/medical-counseling-services/counseling/</a>
<b>Violence Prevention &amp; Victim Assistance (VPVA)</b>	The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.	(848) 932-1181 3 Bartlett Street New Brunswick, NJ 08901 <a href="http://www.vpva.rutgers.edu/">www.vpva.rutgers.edu/</a>

<b>Scarlet Listeners</b>	Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.	(732) 247-5555 <a href="mailto:scarlet.listeners@gmail.com">scarlet.listeners@gmail.com</a> <a href="https://scarletlisteners.wixsite.com/scarletlisteners">https://scarletlisteners.wixsite.com/scarletlisteners</a>
<b>Academic Support</b>	School of Arts and Sciences Academic Advising for personal, career, and educational goals. Department of Kinesiology & Health Academic Advising for questions about Exercise Science or Sport Management major/minor requirements.	SAS: <a href="https://sasundergrad.rutgers.edu/">https://sasundergrad.rutgers.edu/</a> Dept. of Kinesiology & Health: Lin Williams   <a href="mailto:lin.williams@rutgers.edu">lin.williams@rutgers.edu</a> Loree Gym, Room 148 Becky DeMarco   <a href="mailto:becky.demarco@rutgers.edu">becky.demarco@rutgers.edu</a> <a href="https://kines.rutgers.edu/academics/academic-advising">https://kines.rutgers.edu/academics/academic-advising</a>
Last Updated: 7-26-2023		

**Acknowledgement:** I would like to thank my fellow anatomy lecturer, Dr. Lisa Rossman-Murphy, for sharing her study materials for your use. She has also provided the administrative/logistical information presented in this syllabus. I hope you will join me in expressing our gratitude to her for allowing us to use these study resources. Please respect Dr. Murphy's study materials and do not post them online to social media sites or to any open access sites. We will also be utilizing Dr. Murphy's assessments as part of the course requirements. Again, I thank her for allowing me to use them for my lecture sections so that we can keep the administration of the course uniform across all sections.

I look forward to a great semester with all of you. Please let me know of any questions or concerns that you have at any time. Thank you.

-Rudy Mukherjee