# **BIPN 100**

## Human Physiology I UC San Diego

## **Summer session II 2022**

M/Tu/W/Th 9:30-10:50 am (PT), Center 115 **Instructor**: Jiyoung Park <j9park@ucsd.edu> **Instructor Office Hours:** after each class & Tu 3-4 pm (Zoom), or by appointment

Course Website: <a href="http://Cavnas.ucsd.edu">http://Cavnas.ucsd.edu</a>

## Important Note to in-person modality of this course

Welcome to BIPN 100 at UC San Diego! While we are very excited to meet you in person, we will try our best to make this course pandemic resilient. That means, this course will be delivered in person while keeping all of us as safe as possible. For us, it is very important to help you learn physiology and build your career AND take care of your physical and mental health. Please understand that as things are changing very quickly, class logistics and policy can be modified at any time during the quarter to comply with the guidance of UCSD or Health Authorities or change in Covid-19 situation. You will be notified, in advance, of any changes during regularly scheduled class.

We will ask you to take your responsibilities by following these:

- Public Health Expectations and Best Practices
  - o Public health is a collective effort. Keeping the UC San Diego community healthy takes all of us following campus safety requirements to help prevent infection. You are also expected to follow university public health requirements and pursue personal protection practices to protect yourself and the others around you. These include:
- Stay home if you're feeling ill.
  - o If you're not feeling well, complete the symptom screener and if needed, get tested for COVID-19. Do not come to campus unless given the all-clear.
- Participating in the university's daily screening process.
  - o Everyone must complete a <u>Daily Symptom Screener</u>.
- Participating in the university's testing program.
  - o All students are required to participate in the <u>COVID-19 Testing program</u> as required by their vaccination status.
- Wear a well-fitting mask that covers your nose and mouth at all times in the classroom.
- o Everyone is required to <u>wear masks indoors</u> regardless of vaccination status. If you see someone not wearing a mask, or wearing it incorrectly, kindly ask them to mask up.
- Monitor potential exposures and comply with contact tracing efforts.
  - o Look out for the daily updates and potential exposure list that the university sends out with building information and the dates of exposure.

## **Course Description**

Course introduces the concepts of physiological regulation, controlled, and integrated by the nervous and endocrine systems. Course then examines the muscular, cardiovascular, and renal systems in detail and considers their control through the interaction of nervous activity and hormones. *Prerequisites*: BILD 1 and BILD 2.

## **Discussion sections and Instructional assistants (IAs)**

Here, you can find the IA assigned to your section, who will be the primary point of contact when you have any questions regarding the course. You can also contact the instructor at <a href="mailto:j9park@ucsd.edu">j9park@ucsd.edu</a>.

Betty Huynh	bhuynh@ucsd.edu	<b>A01</b> ( <b>M/W 12 - 12:50pm</b> ) AP&M 2301
Emily Tran	e6tran@ucsd.edu	<b>A02</b> ( <b>M/W 1 - 1:50pm</b> ) AP&M 2301
Saya Kayley French	skfrench@ucsd.edu	A03 (Tu/Th 12 - 12:50pm) CENTER 207
Saya Kayley French	skfrench@ucsd.edu	<b>A04</b> ( <b>Tu/Th 1 - 1:50pm</b> ) CENTER 207
Emily Tran	e6tran@ucsd.edu	<b>A05 (M/W 2 - 2:50pm)</b> CENTER 218

#### **Communications and Office hours**

If you have any concerns or questions about the material, the instructor and your IAs will be available to assist, during office hours, via Q&A board on Canvas, via email, or by scheduling an additional appointment. You can visit **any of the office hours below**. You can also **email your section IA or the instructor** for any questions. To improve the availability of the instructor and IAs, office hours and individual meetings can be held either in-person or online.

If an extended illness or circumstance including natural disasters affects your performance in class, please consult the instructor immediately.

	Email	Office hours	
Dr. Jiyoung Park	j9park@ucsd.edu	M/Tu/W/Th after each class: outside the classroom (an exact	
		location will be posted after the course starts)	
	Tu 3-4 pm (Zoom link here, also provided on Canvas)		
Betty Huynh	bhuynh@ucsd.edu	W 12-1 pm (Zoom link here, also provided on Canvas)	
Emily Tran	e6tran@ucsd.edu	M 12-1 pm (Zoom link here, also provided on Canvas)	
Saya Kayley French	skfrench@ucsd.edu	Tu 4-5 pm (Zoom link here, also provided on Canvas)	

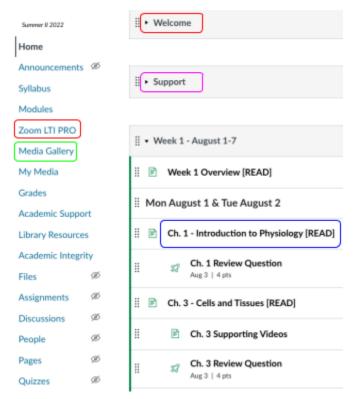
#### **Class Materials and Tools**

## Canvas (<a href="http://Canvas.ucsd.edu">http://Canvas.ucsd.edu</a>)

All course related information including announcements, lecture slides, review questions, and problem sets will be found on Canvas. It is your responsibility to access the course website regularly to participate in classes and discussion sections. Please check the Canvas site and your UCSD email regularly to view announcements, submit assignments, complete assessments, and

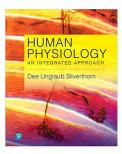
ensure your grade totals are accurate. Weekly modules contain lecture slides (blue) and supporting material, as well as weekly assignments. Weekly modules will be available on Saturdays before each week. No corrections will be made to any grades after the date of the last exam. Turning on Canvas notifications is recommended.

- How to join online office hours and other meetings? Go to the "Zoom LTI Pro" link on the left side and click on the tab "Upcoming Meetings." On there, you can see the live class meetings and the office hours for the instructor and IAs. The Zoom links are also found in the "Zoom links for lectures and office hours" page in the Welcome module.
- How to watch the recordings of the live class meetings, if missed? Go to the "Media Gallery" (green) link on the left side.



# TEXTBOOK: *Human Physiology: An Integrated Approach* by Silverthorn, 8<sup>th</sup> Ed.

Any recent edition (7<sup>th</sup> or 8<sup>th</sup>) in any form (electronic text, loose leaf, or hard copy) will be acceptable.



## **Inclusive access by Redshelf**

A digital version of the textbook is available by the UC San Diego Bookstore through Canvas. You need to decide by **August 6th**, 2022, 11:59 pm PDT, if you want to **keep access or opt out.** If you keep access, you will be charged for access to the eBook. The link to the textbook through the Inclusive Access is in **the Support module** (**magenta**) on Canvas. If you decide not to opt in, you will be responsible for sourcing the materials elsewhere.

Instructions for how to opt in can be found <u>here</u>. If you have questions about Inclusive Access and how to access your course materials, visit <u>RedShelf Solve</u>. <u>This page</u> shows how to

access different types of course materials via Canvas. If you're having issues accessing your course materials, you can submit a ticket for RedShelf <a href="here">here</a>. For any questions about billing please contact <a href="textbooks@ucsd.edu">textbooks@ucsd.edu</a>. Again, you have until August 6th, 2022, 11:59 PM PDT to complete this process. You can opt in and out as much as you want before that date, but if you are opted out on that date, you will not be able to access the course materials in Canvas and your student account will not be charged the Inclusive Access fee.

## **Grading & Assessments**

Assignment	Points	#	Total points	Percent
Review Questions (Drop the lowest)	vary		62	17%
Discussion Section Participation (Drop the lowest two)	7	8	56	16%
Exam (Drop the lowest)	120	2	240	67%
Total			358	100%

Assessments in this course are *not* to judge you, but to check your understanding that will *help your learning*. So please let your instructor know, if you have any questions on the course content or any concern regarding assessments.

## **Grading criteria**

Grade assignments will be based on the percentage of total points earned. We do not decide your grade, but rather you as a student do the work to earn your grade. Grading in this course will be linear, *not* curved. Final grades will not be rounded up. The point cut-offs listed below will be strictly followed when assigning final letter grades.

$\geq$ 97%	A+	94% to < 97%	A	90% to < 94%	A-
87% to < 90%	B+	84% to < 87%	В	80% to < 84%	B-
73% to < 80%	C+	66% to < 73%	C	60% to < 66%	C-
50% to < 60%	D	< 50 %	F		

#### 1. Class

Each class will be composed of short instruction that explains important concepts followed by questions that can help you check your understanding. Your answers to the questions will not be graded, but it will be a very efficient way to solidify your learning and to prepare for exams.

You are highly encouraged to join the class in person. If you are feeling ill or you should quarantine, you can choose to participate in the class remotely at your place by Zoom or asynchronously by watching recordings. Physical attendance on campus will not be recorded and not required for grades.

#### 2. Review Questions

After reviewing the lecture materials and recordings for each chapter, students will need to complete review questions to test their understanding of the concepts that were discussed. Review questions will be multiple-choice questions, and each set of questions will be worth between 2-8 points. Review questions will be usually due Wednesdays or Sundays after the chapter is completed. The lowest assignment will be dropped from the final grade.

#### 3. Discussion Section

Discussion sections are designed to help you apply your knowledge and exercise your skills, by reviewing the lecture materials in groups and solving problem sets which exam questions will be based on. Problem sets will be posted on Canvas. The sections will start **Week 1 on Monday**, **August 1st** or **Tuesday**, **August 2nd**. You could earn the Discussion section Participation points by attending each section and by actively participating in sections. To earn the discussion section participation points, students should complete the discussion section quiz by 11:59 pm of the discussion day. The access code to the discussion section quiz will be given during each in-person discussion section. Completing the discussion section quiz without attending in-person sections is prohibited. Late submission will not be accepted. The two lowest discussion section participation points will be dropped. Students may use "drop the lowest two" when they cannot attend a discussion section for any reason.

#### 4. Exams

Exams are designed to facilitate applying knowledge to solve novel problems in a scientific way. There will be **2 exams** and **one cumulative Final exam** throughout the duration of the course and the lowest one among the three exams will be dropped from the final grade. Questions could be in various formats, including multiple choice and written questions. Each exam except the final exam will cover information from previous lectures since the last exam. Materials presented in lecture slides, video recordings, discussion sections, and additional readings can be covered. Exam questions will be also based on review questions and practice problems.

Exams must be taken **in person during the scheduled exam times**, unless announced otherwise. The final exam details will be announced in the class. As the exam dates are set and posted, they will not be changed, so plan your quarter accordingly. For more information about exam dates and course topics, please see the *Class schedule* section below.

If a *verifiable*, *unplanned* emergency happens that prevents you from taking the exams on time, you MUST notify the instructor or the IA of the problem as soon as it is reasonable to do so. We will discuss your best options given your circumstances.

#### 5. Extra credit opportunities

• 2 points for **meeting with Prof. Park or an IA during office hours** or another meeting. You will earn the points for your first meeting, but you can visit us as many times as you want!

- 2 points for "About Me" one pager. You can submit a 1-page presentation slide to introduce yourself and this one pager will be played at the beginning of each class. You will earn points for your first one pager.
  - o You could include your name, class year, hometown, a photo of yourself (if you are comfortable to share) or a photo of something meaningful to you, 1 sentence of hobby or interest you have.
  - o If you have an event to advertise, include that!
- 2 points each for 2 **exam reflections**. After Exams 1 and 2, you can complete reflection questions about how you prepared for the exam and how the course is going.
- 3 points for **CAPE survey**: if more than 80% of the class complete CAPE survey in a constructive and professional way, everyone in this class will earn 3 extra credit points.

## 6. Late policy

Review questions can be submitted **after due dates with late penalties.** Late submissions will be given half-credit for one day after the due date, and after that they will be given no credit.

Remember that for all assignment groups, you can **drop one** or two **without any impact** on your score. That means if you happen to miss one or turn it in late, or your life is too busy a certain week, it will not negatively impact your course score.

### 7. Regrades

If a grading error has been made, you should submit a re-grade request via Gradescope or email to your Instructional Assistants or Dr. Park. Students who submit items for re-grading understand that we may re-grade the entire item and the score may go up or down.

## Class schedule (\*subject to change)

Week	Date	Lecture Topics	Readings
1	8/1	Introduction to Physiology	Ch. 1
	8/2	Cells and Tissues / Membrane Dynamics	Ch. 3 / Ch. 5
	8/3	Membrane Dynamics / Signal Transduction	Ch. 5 / Ch. 6
	8/4	Signal Transduction / Endocrine System	Ch. 6 / Ch. 7, 23
	8/8	Endocrine System / Neurons	Ch. 7, 23 / Ch. 8
2	8/9	Neurons	Ch. 8
	8/10	Exam 1	
	8/11 Central Nervous System / Sensory Physiology		Ch. 9 / Ch. 10
3	8/15	Sensory Physiology	Ch. 10
	8/16	Efferent Division	Ch. 11
	8/17	Muscles	Ch. 12
	8/18	Muscles / Kidneys	Ch. 12 / Ch. 19
4	8/22	Kidneys	Ch. 19
	8/23	Fluid and Electrolyte Balance	Ch. 20
-	8/24	Exam 2	
	8/25	Cardiovascular Physiology	Ch. 14
5	8/29	Cardiovascular Physiology	Ch. 14
	8/30	Blood Flow and Blood Pressure	Ch. 15
	8/31	Blood Flow and Blood Pressure / Blood	Ch. 15 / Ch. 16
	9/1	Review session	
	9/2 (Fri)	Exam 3 (cumulative), 9:30 - 11:50 am	

The exam dates are set and will not be changed, so plan your quarter accordingly.

## **Student Resources for Support and Learning**

#### **Learning Resources**

Writing Hub
Supplemental Instruction
Content Tutoring
Learning Strategies Tutoring

#### Accessibility

Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) which is located in University Center 202 behind Center Hall. Students are required to present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison in the department in advance so that accommodations may be arranged.

Contact the OSD for further information: https://disabilities.ucsd.edu/.osd@ucsd.edu | 858. 534.4382

#### **Technical Support**

For help with accounts, network, and technical issues: https://acms.ucsd.edu/contact/index.html

#### Mental Health Services

Counseling and Psychological Services (CAPS) provides individual, group, couples, and family psychotherapy to registered undergraduate and graduate students. Instructors can contact the **Triton Concern Line** for consultation or concerns about a student. They can also request training to help identify and work with distressed students.

Office 858-534-3755 | Phone & Crisis: 858-534-3755 | Emergencies: 911

## **UC San Diego Academic Policies**

**Academic Accommodations:** Students requesting accommodations for this course due to a disability need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) which is located in University Center 202 behind Center Hall. Students are required to present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison in the department in advance so that accommodations may be arranged. Please note that instructors are unable to provide accommodations unless they are first authorized by OSD.

Contact the OSD for further information:

858.534.4382 (phone) osd@ucsd.edu(email) http://disabilities.ucsd.edu(website)

#### Discrimination and harassment

The University of California, in accordance with applicable federal and state laws and university policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender, gender identity, gender expression, pregnancy (including pregnancy, childbirth, and medical

conditions related to pregnancy or childbirth), physical or mental disability, medical condition, genetic information, ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The university also prohibits harassment based on these protected categories, including sexual harassment, as well as sexual assault, domestic violence, dating violence, and stalking. The nondiscrimination policy covers admission, access, and treatment in university programs and activities.

If students have questions about student-related nondiscrimination policies or concerns about possible discrimination or harassment, they should contact the Office for the Prevention of Harassment & Discrimination (OPHD) at (858) 534-8298, ophd@ucsd.edu, or reportbias.ucsd.edu.

Campus policies provide for a prompt and effective response to student complaints. This response may include alternative resolution procedures or formal investigation. Students will be informed about complaint resolution options.

A student who chooses not to report may still contact CARE at the Sexual Assault Resource Center for more information, emotional support, individual and group counseling, and/or assistance with obtaining a medical exam. For off-campus support services, a student may contact the Center for Community Solutions. Other confidential resources on campus include Counseling and Psychological Services, Office of the Ombuds, and Student Health Services.

CARE at the Sexual Assault Resource Center

858.534.5793 | sarc@ucsd.edu | https://care.ucsd.edu

Counseling and Psychological Services (CAPS) 858.534.3755 | https://caps.ucsd.edu

#### **Academic Integrity:**

Academic Integrity is expected of everyone at UC San Diego. This means that you must be honest, fair, responsible, respectful, and trustworthy in all of your actions. Lying, cheating, or any other forms of dishonesty will not be tolerated because they undermine learning and the University's ability to certify students' knowledge and abilities. Thus, any attempt to get, or help another get, a grade by cheating, lying or dishonesty will be reported to the Academic Integrity Office and will result in sanctions. Sanctions can include an F in the class and suspension or dismissal from the University. So, think carefully before you act. Before you act, ask yourself the following questions: a: is my action honest, fair, respectful, responsible, and trustworthy, and b) is my action authorized by the instructor? If you are unsure, don't ask a friend, ask your instructor, instructional assistant, or the Academic Integrity Office. You can learn more about academic integrity at academicintegrity.ucsd.edu.

(Source: Bertram Gallant, T. (2017). Teaching for integrity. UC San Diego Academic Integrity Office.)

Students suspected of academic integrity violations on exams will be invited to Zoom follow-up meetings where they will be asked to (in real time, on video) justify their answers (before the graded exams or solutions are released). If the instructor isn't convinced during the meeting, or the student refuses to participate, they're submitted for academic integrity violations.