

## Biology 232: Human Physiology – Syllabus for Fall 2020

### (1) Course Information

- Sections: 2080/LSA and 2082/LSB
- Year and quarter: Fall 2020
- Schedule
  - Live-streamed (synchronous) class meetings (required)
    - Mondays, Tuesdays, and Thursdays, 10:00-11:30am (I will try to arrive early and stay late)
    - meet in Zoom: meeting ID 924 7508 2864 and passcode 232, or use <https://zoom.us/j/92475082864?pwd=c2VKNm1zVUZxSngrb3JhY2s2bzlWUT09>
  - Office hours (totally optional)
    - Wednesdays and Fridays, 10:00-11:30am ... and by appointment
    - Meet in Zoom: <https://us02web.zoom.us/my/dr.crowther>, or use meeting ID 536 606 5089 (no password needed)

### (2) Instructor Information

- Instructor name: Gregory J. Crowther, Ph.D.
  - Please call me “Professor Crowther” or “Doctor Crowther” or “Doctor C”
  - My pronouns: he/him/his
- Contact information:
  - Email: [gcrowther@everettcc.edu](mailto:gcrowther@everettcc.edu) (Canvas messages work too)
  - Cell phone number: 206-290-8826 (please use sparingly!)
  - Faculty website: <https://faculty.washington.edu/crowther/>
  - Expect responses from me within 24 hours.
- Office location on campus (not that it matters...): Shuksan 118

### (3) Course Description\*

Detailed study of the functioning, integration and interrelationships of the following organ systems of the human body: Integumentary, Skeletal, Muscular, Neurologic (including Autonomic and Special Senses), Endocrine, Hematologic, Cardiovascular, Lymphatic/Immune, Respiratory, Digestive, Urinary, and Reproductive (including Development). Lectures and laboratory exercises emphasize both cellular and systems-level functions. For allied health professional majors.

### (4) Learning Objectives and Core Learning Outcomes\*

Upon successful completion of this course, students will be able to meet these Learning Objectives:

1. Explain in detail the functioning of the following organ systems: Integumentary, Skeletal, Muscular, Neurologic (including Autonomic and Special Senses), Endocrine, Hematologic,

Cardiovascular, Immune, Respiratory, Digestive, Urinary, and Reproductive (including Development).

- 2. Describe the integration of and interrelationships between these bodily systems for topics such as homeostasis and acid-base balance.
- 3. Clinically apply understanding of human physiology to factual scenarios, case problems, and/or pathologic conditions altering normal physiology.
- 4. Use evidence-based learning techniques and technologies to explore core concepts in the biological sciences.

Two of EvCC's three Core Learning Outcomes are also assessed in this course:

- *Analytical Thinking*. Students will apply previous knowledge to novel problems, e.g., predicting clinical outcomes from physiological symptoms.
- *Effective Communication*. Students will communicate the results of their laboratory experiments in written reports and narratives.

## (5) Required Resources

- A. Regular, reliable access to a computer (something better than a phone).
- B. Regular, reliable Internet access.
- C. An account associated with course crowther92476 at PearsonMyLabAndMastering.com. You may purchase an access code via the EvCC bookstore, or you may buy access directly from PearsonMyLabAndMastering.com (\$119.99 for up to 24 months, or \$69.99 for 18 weeks). If you are not yet sure that you will be taking this course with me, or if you are experiencing temporary financial issues, you can register for free temporary (14-day) access. Your access must include the following:
  - the eText, i.e., the electronic version of our textbook: *Human Anatomy & Physiology* (11<sup>th</sup> edition/2019) by Elaine N. Marieb & Katja Hoehn, published by Pearson (ISBN 13: 978-0-13-458099-9; ISBN 10: 0-13-458099-0)
  - textbook-specific practice tests and quizzes
    - Study Area → Practice Tests & Quizzes
  - PhysioEx laboratory simulations
    - Study Area → PhysioEx
  - Learning Catalytics (for “clicker” questions)
    - Course Home → Learning Catalytics
- D. Course website in Canvas: <https://everettcc.instructure.com/courses/1981789>.
  - This is your “home base” for the course. All assignments will be listed here, and you will turn in almost everything here (NOT at PearsonMyLabAndMastering.com).
  - Please check this site every day or adjust your Canvas settings (Account → Notifications) so that you are notified of all new announcements, assignments, etc.
  - There is no additional charge for using this website.
- E. Zoom

- All live-streamed (synchronous) class meetings will occur via Zoom: meeting ID 924 7508 2864, passcode 232, or use <https://zoom.us/j/92475082864?pwd=c2VKNm1zVUZxSngrb3JhY2s2bzIWUT09>
- All live-streamed sessions will be recorded. You are not required to have your camera or microphone on.
- There is no charge to you for using Zoom.
- F. Home lab kit (\$85 plus shipping)
  - To compensate for the lack of on-campus labs, the biology department has created a home lab kit in cooperation with a local company (All World Scientific, based in Monroe WA). To obtain this kit, please follow the steps below.
    - Go to <https://wine-testing-supplies.com/Item/300-2025>
    - Order this item (300-2025 - EVCC Physiology Class Kit)
    - For delivery, choose either UPS delivery (may be an additional \$15 for shipping) or will call (to pick up in Monroe; no shipping charge).
  - There is no lab manual. Weekly lab handouts will be posted to Canvas (address above).
- OPTIONAL, BUT RECOMMENDED: a physical copy of our textbook (listed above). Your access to PearsonMyLabAndMastering.com, which includes the eText, will let you purchase a loose-leaf hole-punched version of the textbook for an additional \$44.99. I recommend getting a hard copy of the textbook either this way or some other way so that you can consult it independently of the Internet, underline things, write notes in the margin, etc.

## **(6) Other Requirements and Expectations**

### **(6.1) Prerequisites**

- BIOL& 211 and 231 (or BIOL& 221 and 222 and 223) with a grade of C or higher
- CHEM& 121 (or CHEM& 161 and CHEM&162) with a grade of C or higher

Any student who has not yet met both prerequisites but wants to take this course should consult me as soon as possible (if you have not already done so).

### **(6.2) Attendance and Participation**

Consistent attendance and participation are critical for success – perhaps even moreso in an online course such as this one.

- This class is offered in a synchronous format, also known as live-streaming (LS). You should plan to attend all live-streamed sessions. I understand that there may be occasional emergencies, illnesses, or other problems that prevent you from attending a session; the grading system will be structured to accommodate such occasional absences.
- Aside from live-streamed lectures and exams, I hope you will take frequent advantage of opportunities to interact with me and your classmates via office hours, the Canvas discussion board, study groups, etc.

**(6.3) Assignments**

We learn through regular, focused, thoughtful practice. This course will give you many opportunities to practice working with and processing the material. In general, there will be assignments due before each online lecture to help keep you moving along through the material. There will also be numerous in-class and in-lab assignments, plus several exams. These different assignments will be graded in different ways:

- Short daily assignments will be graded for completeness (did you do the whole thing?) and timeliness (did you turn it in on time?).
- Exams will be graded for quality (were your answers good?). Exams will consist mostly of multiple-choice and short-answer questions.
- Lab worksheets will be graded for completeness, timeliness, and quality. In general, only a few answers will be checked for quality.

<i>Assignment category</i>	<i>Approximate # of assignments</i>	<i>Points per assignment</i>	<i>Total points in this category</i>
Pre-lecture homework	23 (none dropped)	3 points	69 points
Video lecture homework	23 (none dropped)	3 points	69 points
Learning Catalytics (Pearson Mastering)	21 (lowest 3 dropped)	3 points	54 points
Discussion board	7 (none dropped)	5 points	35 points
Lab worksheets	10 (lowest 1 dropped)	15 points	135 points
Tests	6 (lowest 1 dropped)	150 points	750 points
<b>Approximate total</b>			<b>1,112 points</b>

There will also be a couple of small extra-credit opportunities.

**(6.4) Final Grades**

Final letter grades will be based on the percentage of total points earned, according to the chart below. No “curving” will be applied at the stage of awarding final grades.

- 92.50% to 100% = A
- 89.50% to 92.49% = A-minus
- 86.50% to 89.49% = B-plus
- 82.50% to 86.49% = B
- 79.50% to 82.49% = B-minus
- 76.50% to 79.49% = C-plus
- 72.50% to 72.49% = C
- 69.50% to 72.49% = C-minus
- 66.50% to 69.49% = D-plus

- 59.50% to 66.49% = D
- 0% to 59.49% = F

### **(6.5) Late Work**

In general, late work is accepted but penalized 20% per day, up to a maximum penalty of 60%. For example, a 15-point assignment would receive a 3-point penalty if submitted 0.1 to 24 hours late, a 6-point penalty if submitted 24.1 to 48 hours late, and a 9-point penalty if submitted more than 48 hours late. If you have a fantastic excuse for being late (e.g., sudden illness or family emergency), please post your excuse and documentation (doctor's note, prescription, photo of open wound...) to the corresponding assignment listing in Canvas and I'll consider waiving the penalty.

### **(6.6) Academic Integrity – Cheating and Plagiarism**

For tests, working with other students is NOT allowed. For all other assignments, working together IS allowed (unless stated otherwise).

Accidental or intentional use of someone else's work, ideas, research, or writing without attribution of the source may result in a failing grade on the assignment or a failing grade in the course, depending on the details of the situation. Any incidents of this type will be reported to the Dean of Student Development as a violation of the Student Conduct Code, which is described in the [Student Rights and Responsibilities Handbook](#).

### **(6.7) Lab Safety, Cleanliness, and Organization**

All labs this quarter will be done at home. All planned activities should be extremely safe, but please let me know if you have any questions or concerns, large or small.

### **(6.8) Other Tips for Success**

- *Actively participate in everything.* Take notes on video lectures. Ask questions. Answer questions, even if you have to guess. Take charge of your education!
- *Practice metacognition.* Metacognition refers to cognition about cognition, i.e., thinking about how you think. For students, this encompasses "knowing how to learn, being able to monitor their own understanding, being reflective about what they understand and do not understand, and being able to strategize about how to resolve their confusions" (K.D. Tanner, *CBE Life Sciences Education* **11**: 113-120, 2012).
- *Work together.* This can be done online in various ways: Canvas Discussion posts and Chats, Zoom sessions, etc. Form study groups and help each other out! Just be sure that your submitted work reflects your own understanding and credits any outside sources.
- *Respect me and your peers, and expect respect in return.* Respectful behavior includes: listening carefully when spoken to; giving people the time and space to think and to ask and answer questions; refraining from harsh or persistent criticism; avoiding language, attire, or movements likely to be annoying or distracting; keeping conversations reasonably focused on course material; and maintaining reasonable control over one's emotions.

- *Get help when you're starting to struggle, not after weeks of problems.* Let's address small problems – regardless of whether they concern the material itself, study habits, interactions with classmates, or whatever – before they become big problems. Office hours and lab sessions are especially good times to check in with me.

## (7) Approximate Class Schedule

An approximate schedule is posted below. Please note the following:

- The exact schedule may be adjusted, if necessary, due to natural disasters, etc. However, every effort will be made to hold tests only on the specific days set aside for this purpose.
- We will cover about one textbook chapter per class session (i.e., about three chapters per week).
- We will cover textbook chapters in the following order: 1, 2, 3, 4, 5, 11, 12, 13, 14, 15, 9, 16, 17, 18, 19, 21, 22, 25, 26, 23, 24, 27, 28. (We will skip chapters 6, 7, 8, 10, 20, and 29.)

Week # (Dates)	Monday	Tuesday	Thursday
1 (Sept. 21-25)	Ch. "0" (introduction)	Ch. 1 (orientation)	Ch. 2 (chemistry)
2 (Sept. 28-Oct. 2)	Ch. 3 (cells)	Ch. 4 (tissues)	Ch. 5 (integument)
3 (Oct. 5-9)	Ch. 11 (nervous system)	<b>Test 1 (Ch. 1-4)</b>	Ch. 11, continued (nervous system)
4 (Oct. 12-16)	Ch. 12 (CNS)	Ch. 13 (PNS/reflexes)	Ch. 14 (autonomic NS)
5 (Oct. 19-23)	Ch. 15 (special senses)	<b>Test 2 (Ch. 5, 11-13)</b>	Ch. 9 (muscles)
6 (Oct. 26-30)	Ch. 16 (endocrinology)	Ch. 17 (blood)	Ch. 18 (heart)
7 (Nov. 2-6)	Ch. 18, continued (heart)	<b>Test 3 (Ch. 9, 14-15)</b>	Ch. 19 (blood vessels)
8 (Nov. 9-13)	Ch. 21 (immunity)	Ch. 22 (respiration)	Ch. 25 (urinary system)
9 (Nov. 16-20)	Ch. 26 (fluid/solute balance)	<b>Test 4 (Ch. 16-19)</b>	Ch. 23 (digestion)
10 (Nov. 23-27)	Ch. 24 (metabolism)	<b>Test 5 (Ch. 21-22, 25-26)</b>	<b>No class (Thanksgiving)</b>
11 (Nov. 30-Dec. 4)	Ch. 27 (reproduction)	Ch. 28 (pregnancy)	Catch-up/review
12 (Dec. 7-11)	<b>No class (finals week)</b>	<b>Test 6 (Ch. 23-24, 27-28)</b>	<b>No class (finals week)</b>

**(8) Support for Students: Equity and Accessibility\***

Everett Community College, through its Vision, Mission, and Strategic Plan, has made an institutional commitment to establish a diverse, equitable and inclusive working and learning environment. My goal is to create a classroom environment in which everyone can participate and learn. Because of the diversity of backgrounds, experiences, and beliefs all of us bring to this class, I expect you to interact with your peers in a spirit of generosity, mutual respect, and understanding.

If there are aspects of this course that prevent you from learning or that exclude you, please speak with me as soon as possible. Together we can develop strategies to meet both your needs and the requirements of this course. I am happy to talk privately after class or during my office hours.

You also have the right to request accommodation for a verified disability. For information and assistance, contact the Center for Disability Services (425-388-9272, or [cds@everettcc.edu](mailto:cds@everettcc.edu)) for help documenting specific needs you may have and determining appropriate accommodations.

*Reasonable Accommodations for Faith/Conscience:* Everett Community College students are entitled to two days of excused absences per academic year (summer quarter through the end of spring quarter) for reasons of faith or conscience or for organized activities conducted under the auspices of a religious denomination, church, or religious organization. Everett Community College will grant reasonable accommodation so that grades are not impacted for students who are absent for reasons of faith or conscience, or for an organized activity conducted under the auspices of a religious denomination, church, or religious organization. Such absences must be requested in writing within the first two weeks of the class or the first week for a late start class and may not incur additional fees for students. This policy and the associated procedure is posted on the [Student Rights & Responsibilities Handbook](#). Students who have concerns about approval or a grade impact may utilize the student grievance procedure for concerns not directly related to grades, or to the grade appeal process in cases impacting a final grade.

We understand that for our campus to be welcoming and safe, it must be free from all forms of discrimination. Everett Community College does not discriminate based on, but not limited to, race, religion, creed, color, national origin, age, sex, sexual orientation, gender identity or expression, pregnancy or parental status, marital status, disability, genetic information, or status as a veteran of war. If you believe that you have been subjected to discrimination or harassment based upon any of these, you should let me know or contact the college's Title IX Coordinator at [TitleIXCoordinator@everettcc.edu](mailto:TitleIXCoordinator@everettcc.edu) or 425-388-9271.

Additional student support information:

- *Canvas and eLearning.* Assistance with the Canvas learning management system (including logging in and course access).
  - <https://www.everettcc.edu/elearning/>
  - 425-388-9027 or 1-866-575-9027

- *Counseling and Student Success.* Assistance with career counseling, academic/educational counseling, advising, and referral to community mental health resources.
  - <https://www.everettcc.edu/students/css>
  - 425-388-9263
- *Library.* Information and services to support research and learning including books, media materials, and databases. Librarians assist students in locating information and developing research skills.
  - <https://www.everettcc.edu/library>
  - 425-388-9353 (checkout) and 425-388-9354 (reference assistance)
- *TRiO.* Eligible students benefit from services such as academic planning, transfer assistance, and small-group tutoring. Students must be a first-generation college student (neither parent graduated with a 4-year bachelor's degree), low-income (as determined by federal guidelines, verification required), or have a documented disability.
  - <https://www.everettcc.edu/administration/equity-social-justice/trio>
  - 425-388-9365 (call) or 425-382-8565 (text)
- *Tutoring Center.* Free academic/tutorial support with course material, study skills, time management, and preparation for exams.
  - <https://www.everettcc.edu/programs/academic-resources/transitional-studies/support/tutoring-center>
  - 425-388-9356
- *Writing Center.* Peer writing assistants offer feedback, ideas, and methods for editing and polishing work.
  - <https://www.everettcc.edu/programs/communications/writing-center>
  - 425-388-9406
- *Additional Support Services.*
  - <https://www.everettcc.edu/students>

## **(9) General Information about EvCC Policies and Procedures\***

As outlined in the [campus civility statement](#), Everett Community College is committed to providing a safe learning and working environment. The expectation is that all students will conduct themselves in a civil, respectable and appropriate manner as a responsible member of the college community. [The Student Rights and Responsibilities Handbook](#) identifies and describes college expectations, students' rights, and outlines the process for resolving disciplinary matters, including Student Code of Conduct violations. The provisions of the Student Code of Conduct apply to all students whenever they are on the college campus, in college housing, or engaged in college-sponsored activities and functions.

### **(9.1) Emergency Preparedness and Campus Closures\***

In the event of an emergency situation adversely affecting college operations, public health, or the well-being and safety of students or employees, the college president may declare a temporary closure of any or all units of the institution. If the event of a closure, information will be posted on the opening screen of the EvCC website, emailed to students and employees at their college email address, and will



also be available as a message on the college's main phone line at 425-388-9100. Students may sign up to receive an emergency alert as a text message or by personal email [through the Rave system](#). Faculty will communicate with students about adjustments in course content or requirements, including assignment deadlines that may be impacted by a closure.

**(9.2) Academic Calendar\***

Registration and payment dates, application and refund deadlines, the final examination schedule and all other information related to the academic year and each individual quarter is available on the [college website](#).