

Department of Physiology and Pharmacology
Physiology/Pharmacology 4980E

Course outline for 2020/2021



Although this academic year might be different, Western University is committed to a **thriving campus**. We encourage you to check out the [Digital Student Experience](#) website to manage your academics and well-being. Additionally, the following link provides available resources to support students on and off campus: <https://www.uwo.ca/health/>.

1. Technical Requirements



Stable internet connection



Laptop or computer



Working microphone



Working webcam suggested

2. Course Overview and Important Dates

This course has 2 components to it: workshops and a research project. Workshops will guide you through important skills that you will need to be successful in your research project including best practices for communication, data analysis, scientific literacy among others. Dr. Beye will be responsible for course workshops. Your research project will be supervised by a faculty member and/or designated sponsor or trainee in the lab. You will be matched to a lab in September and begin your lab work as soon as you are placed. For lab expectations and mode of interaction, please discuss this with your supervisor at your first meeting.



Delivery Mode	Dates	Time
Workshops: Online (synchronous)	Section 001: Mondays Section 002: Wednesdays	9:30AM-11:20AM 10:30M-12:20PM
Lab work: Delivery mode as discussed with supervisor		

*Details about design and delivery of the course are listed below in Section 4

Classes Start	Reading Weeks	Classes End	Study day(s)	Exam Period
September 9	November 2 - 8	December 9	December 10	December 11 - 22
January 4	February 13 - 21	April 5	April 6 and 7	April 8 - 30

*November 30, 2020: Last day to drop a full course and full-year half course without penalty

3. Contact Information

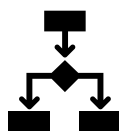


Course Coordinator	Contact Information
Dr. Angela Beye	abeye2@uwo.ca
Teaching Assistant(s)	Contact Information
Shelby Oke, PhD Candidate (<i>Monday</i>)	soke2@uwo.ca
Zach Easton, PhD Candidate (<i>Wednesday</i>)	zeaston@uwo.ca

4. Course Description and Design

A major laboratory project in Physiology or Pharmacology, which emphasizes experimental design, instrumentation, collection and analysis of data and communication of experimental results by oral, poster and written presentations. Students will select the physiology or pharmacology project from a list provided by the department and be matched to a supervisor. **Prerequisite(s):** Physiology and Pharmacology 3000E, Physiology 3120 and 3140A; and registration in Year 4 of one of the following Honours Specialization modules: Pharmacology, Physiology or Physiology and Pharmacology.

Mode	Dates	Time	Frequency
Virtual synchronous	Section 001: Mon. Section 002: Wed.	9:30AM-11:20AM 10:30AM-12:20PM	weekly
Virtual asynchronous (pre-workshop content)	N/A	1-1.5 hours	weekly
Research Project	N/A	8-10 hours (expected)	weekly



- Asynchronous pre-workshop tasks must be completed 1 day prior to synchronous sessions
- Attendance at synchronous sessions is required
- Missed work should be completed within 24 hours
- Closed captioning will be provided on audio or video recordings when possible

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

If students need assistance, they can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

[Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#).

5. Learning Outcomes

This course is designed to expose you to scientific research that may be clinical or basic research, depending on your project. Whether you pursue research as a career or not, I would argue that the following learning outcomes are valuable in any profession.



Upon successful completion of this course, students will be able to:

- work independently or collaboratively on a research project in a specific area of physiology and/or pharmacology where the project includes a substantial literature review, along with experimental design, collection, analysis, and interpretation of results
- develop skills and strategies to work efficiently with a small team to accomplish a goal
- identify plagiarism and devise approaches to avoid this in their own writing
- summarize a published article effectively for a general audience as a media release
- successfully communicate their own research project in an oral presentation and a poster format to both experts and non-experts in the field
- assess the expenditures for their research project and construct a research budget in order to appreciate the costs of scientific research
- think critically about data to evaluate a hypothesis and construct an appropriate conclusion
- write a comprehensive scientific report in a journal manuscript format as a final thesis to share the important findings of their research project

6. Course Content and Schedule



Week	Dates	Workshop Topic**	Instructor
1	Sept 9 – 13	No workshop	
2	Sept 14 – 20	Student Interviews	
3	Sept 21 – 27	Welcome, Course Q & A	Dr. Beye
4	Sept 28 – Oct 4	Professionalism & Avoiding Plagiarism	Dr. Beye
5	Oct 5 – 11	How to Summarize Research	Dr. Beye
6	Oct 12 – 18	No workshop	
7	Oct 19 – 25	How to Search for Literature	Maren Goodman, Teaching and Learning Librarian
8	Oct 26 – Nov 1	Giving a Great Presentation	Dr. Beye
9	Nov 2 – 8	Reading Week	
10	Nov 9 – 15	How to Read Scientific Literature	Dr. Stathopoulos, Researcher and 4980 committee member
11	Nov 16 – 22	Writing a Thesis	Dr. Beye
12	Nov 23 – 29	Virtual Oral Presentation Week	
13	Nov 30 – Dec 6	Check in: Ready for Semester 2?	Dr. Beye
14	Dec 7 – 9	Thesis Introduction: Q & A	Dr. Beye
15	Jan 4 – 10	No workshop	
16	Jan 11 – 17	Statistics and Data Analysis	Dr. Beye
17	Jan 18 – 24	No workshop	
18	Jan 25 – 31	No workshop	
19	Feb 1 – 7	Data Analysis Assignment	
20	Feb 8 – 14	Research Grants and Budgets	Dr. Beye
21	Feb 15 – 21	Reading Week	
22	Feb 22 – 28	Presenting a Poster	Dr. Beye

23	Mar 1 – 7	No workshop	
24	Mar 8 – 14	No workshop: Mar 10th last day of data collection	
25	Mar 15 – 21	No workshop	
26	Mar 22 – 28	No workshop	
27	Mar 29 – Apr 4	Virtual Poster Presentations	
28	Apr 5	No workshop	

**Course workshops will be live in Microsoft Teams. Dr. Beye will give some general instructions after which you will work in breakout rooms with your group on weekly assignments.

7. Online Participation and Engagement



- Students are expected to engage with content and come fully prepared to our live weekly workshops to work on the group activity
- Students are required to participate during live group work sessions
- In the event of illness or required absence from workshop, students must notify Dr. Beye and complete the online activity independently within 24 hrs
- Students should arrange and/or attend regular meetings with the mentor(s) supervising their research project

8. Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.



Assessment	Format	Weighting**	Due Date
Research Proposal	Written	5%	Mon, Oct. 19 th
Oral Presentation	Virtual, posted on OWL	10%	Mon, Nov. 23 rd
Lay Summary	Written	10%	Mon, Nov. 30 th
Thesis Draft #1 (Introduction, Methods)	Written	2.5%	Mon, Jan. 25 th
Data Analysis Assignment	Written	5%	Feb 1 st (Mon section) or Feb. 3 rd (Wed)
Research Budget	Written	10%	Mon, Mar. 8 th
Thesis Draft #2 (Abstract, Results, Figures and Legends)	Written	2.5%	Wed, Mar. 17 th
Poster Presentation	Virtual, posted on OWL	10%	Mon, Mar. 29 th
Final Thesis	Written	25%	Mon, Apr. 5 th
Lab Performance	N/A	10%	Supervisor will evaluate at end of year
Workshop Assignments	Written (group)	10%	Weekly, the day after a workshop by noon
Other Deadlines			
Peer Review: Research Proposal (2 papers)	Track changes feedback with grade	See note below	Fri, Oct 30 th

Peer Review: Draft #1 (2 papers)	Track changes feedback with grade	See note below	Fri, Feb 5 th
Peer Review: Draft #2 (2 papers)	Track changes feedback with grade	See note below	Wed, March 24 th

**designated evaluator(s) will be posted on OWL (supervisor or peer or course committee member)

- All assignments are due at **NOON** (EST) unless otherwise specified
- Written assignments will be submitted to Turnitin (statement in policies below)
- Students will have unlimited submissions to Turnitin using a separate “plagiarism checker” link before the final submission of that assignment
- Asking any lab members to edit written work or write sentences or sections of a submission is strictly forbidden; basic discussions about what general topics to include is permitted
- Rubrics will be used to evaluate assessments and will be posted with the instructions
- Weekly workshop assignments will be saved and submitted as a group in Microsoft Teams for feedback by the deadline stated above
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting Dr. Beye; to ensure a timely response, students should reach out within 7 days
- Any appeals on graded assignments must be submitted to Dr. Beye within 3 weeks of the grade being published through a clear and professionally composed email on the reason(s) for the appeal. Any warranted reassessments will be completed by a course committee member. The new grade may be higher or lower upon reassessment.

Following instructions on assignments, tasks, and applications is very important. It could mean the difference between getting a grant or scholarship or interview and being in the pool of unsuccessful applicants. Therefore, I value this trait in 4980 as well. A deduction of 10% from an assignment grade will be applied for not adhering to instructions. If thorough **peer reviews** are not completed on time as per instructions, a grade deduction of 10% will also be applied to your own assignment. Every person in this course deserves to have thoughtful and extensive feedback on their writing with a justification of the mark assigned.

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Information about late or missed evaluations

- Late assessments without approved documentation or a self-reported absence will be subject to a late penalty 20%/day
- Late assessments with a self-reported absence should be submitted within 24 hours of submission of the self-report

- Missing workshops without proper absence reporting will result in a grade of zero for you on that group assignment
- For late assessments with approved documentation that are normally evaluated by your peers by random assignment two hours after due date (thesis draft #1 and #2), a reweigh will occur onto the final thesis

9. Communication



- Students should check the OWL site every 24 – 48 hours
- Students should email Dr. Beye or your section specific teaching assistant using UWO email
- Emails will be monitored during regular business hours; students will receive a response in 48 – 72 hours
- Students should post all course-related content and questions on the discussion forum so that everyone can access answers to questions. Forum posts will remain anonymous to your peers and only Dr. Beye and our TA's will see the post's author.
- The discussion forums will be monitored Mon-Fri by Dr. Beye and our teaching assistants
- This course will use Microsoft Teams for group work during live synchronous workshops

10. Office Hours



- Individual office hours** will be held remotely using Zoom on **Thursdays from 4-5PM**
- Students will be able to sign up for an appointment using the Sign Up tool on OWL (10 min appointments)
- Students will be able to attend **group drop in sessions at 4-5PM on the Thursday before an assignment is due via Zoom**
- Group office hours will be recorded and posted for everyone to view

11. Resources



- All resources will be posted in OWL
- A lab book is required for research project (or digital lab records if authorized and accessible by your supervisor)

12. Professionalism & Privacy



Western students are expected to follow the [Student Code of Conduct](#). Additionally, the following expectations and professional conduct apply to this course:

- Students are expected to follow online etiquette expectations provided on OWL
- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared
- Screen recordings or lab procedural recordings are not permitted (audio or video) without explicit permission
- Permitted recordings are not to be distributed
- Students will be expected to take an academic integrity pledge before some assessments
- All recorded sessions will remain within the course site or unlisted if streamed

13. How to Be Successful in this Class:

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.



1. **Invest in a planner** to keep track of your courses and assignment deadlines. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
2. Make it a **daily habit to log onto OWL** to ensure you have seen everything posted to help you succeed in this class.
3. **Take notes** as you go through the material. Treat this course as you would a face-to-face course. Keeping handwritten notes will help you learn more effectively than just reading or watching the videos. *Note: typed notes work too, but literature suggests handwritten notes are a more effective learning strategy.*
4. **Connect with others.** Build relationships among your group members and 4980 peers and try to interact regularly for peer support or help in other 4th year courses.
5. **Do not be afraid to ask questions.** If you are struggling with a topic, check the online discussion forums or contact Dr. Beye or your teaching assistant. If you are struggling in your research project, many members of your lab will be happy to help. Don't be afraid to ask. They were all in your shoes once too.
6. **Reward yourself** for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.
7. **Try to keep a weekly routine.** Consistent wake up times, regular exercise, and building in some enjoyable activities will help break up your week to balance academics and your own personal health and wellbeing.
8. **Show initiative** in your research project. If you don't have enough to do to fulfill your 8-10 hr/week requirements, ask if you can be helpful somewhere else. Being eager, resourceful, and independent is a good thing, but also be respectful of your lab member's time and boundaries.

14. Western Academic Policies and Statements

[Policy on Academic Consideration for Student Absences](#)

If you are unable to meet a course requirement due to illness or other serious circumstances, you must seek approval for the absence as soon as possible. Approval can be granted either through a **self-reported absence** or via the **Academic Counselling** unit. Students have two self-reports to use throughout the academic year; absence from course commitments including tests, quizzes, presentations, labs, and assignments that are worth 30% or less can be self-reported. Self-reported absences cover a student for 48 hours (yesterday + today or today + tomorrow). Your instructor will receive notification of your consideration; however, you should contact your instructor immediately regarding your absence. Students are expected to submit missed work within 24 hours of the end of the 48-hour period. Please review details of the [university's policy on academic consideration for student absences](#).

If you have used both their self-reported absences or will miss more than 48 hours of course requirements, a Student Medical Certificate (SMC) should be signed by a licensed medical or mental health practitioner and you should contact academic counselling. Academic Counselling will be operating virtually this year and can be contacted at scibmsac@uwo.ca.

Accommodation for Religious Holidays

The policy on Accommodation for Religious Holidays can be viewed [here](#).

Academic Offences

“Scholastic offences are taken seriously, and students are directed [here](#) to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review [The policy on Accommodation for Students with Disabilities](#).

Correspondence Statement

The centrally administered **e-mail account** provided to students will be considered the individual’s official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts [here](#).

Turnitin and other similarity review software

All assignments will be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. Students will be able to view their results before the final submission. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and [Turnitin.com](#).

15. BMSUE Academic Policies and Statements

Copyright and Audio/Video Recording Statement

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. You must always ask permission to record another individual and you should never share or distribute recordings.

Rounding of Marks Statement

Across the Basic Medical Sciences Undergraduate Education programs, we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. **Final grades** on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved, and the mark assigned; requests for mark “bumping” will be denied.

16. Support Services

The following links provide information about support services at Western University.

[Academic Counselling \(Science and Basic Medical Sciences\)](#)

[Appeal Procedures](#)

[Registrarial Services](#)

[Student Development Services](#)

[Student Health Services](#)