Western University is committed to a **thriving campus**. We encourage you to check out the available resources to support students on and off campus: https://www.uwo.ca/health/.

The Department of Biochemistry recognizes diversity of identity and experience as a source of strength that promotes excellence, innovation, flexibility and adaptability in our discipline. We embrace, nurture, value and celebrate this diversity.

1. **Course Overview and Important Dates:**

<table>
<thead>
<tr>
<th>Delivery Mode</th>
<th>Dates</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blended (mostly in person with some guest lectures by Zoom)</td>
<td>Tuesdays WALS</td>
<td>6:30 pm to 8:30 pm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Classes Start</th>
<th>Reading Week</th>
<th>Classes End</th>
<th>Study day(s)</th>
<th>Exam Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 03</td>
<td>February 19 - 27</td>
<td>April 01</td>
<td>April 02-03</td>
<td>April 04 - 30</td>
</tr>
</tbody>
</table>

*March 07, 2021: Last day to drop a second-term half course or a second-term full course without penalty

2. **Contact Information**

<table>
<thead>
<tr>
<th>Instructor(s)</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Alison Allan (Course Coordinator)</td>
<td><a href="mailto:aallan3@uwo.ca">aallan3@uwo.ca</a></td>
</tr>
<tr>
<td>Dr. Sarah Mattonen</td>
<td><a href="mailto:sarah.mattonen@uwo.ca">sarah.mattonen@uwo.ca</a></td>
</tr>
<tr>
<td>Jedd Sardido (CEL Coordinator*)</td>
<td><a href="mailto:jsardido@housing.uwo.ca">jsardido@housing.uwo.ca</a></td>
</tr>
</tbody>
</table>

* Acts as a liaison between students, faculty members, and local community organizations

3. **Technical Requirements:** Due to the nature of some course sessions, this course will be a blend of face-to-face classes and online guest lectures. For the online components, you will require the following technical supports.

- Stable internet connection
- Laptop or computer
- Working microphone
- Working webcam
4. Course Description and Design

This course focuses on the translation of cancer research discoveries into clinical practice, emphasizing critical thinking, research design and evaluation of data from the literature. A Community-Engaged Learning (CEL) component in the curriculum integrates students in a small group/team learning context through coordination with relevant community partners associated with cancer research, support and care. Students will engage with these community partners associated with cancer research, patient support and care, and will work on a team project relevant to the partners’ needs. Biochemistry 4455G is the capstone course for the BMSc Honors Specialization module in Biochemistry and Cancer Biology.

Prerequisite(s): Biology 2581B, Biochemistry 3381A
Prerequisite Biochemistry 4450A

NO REQUIRED TEXTBOOK

<table>
<thead>
<tr>
<th>Mode</th>
<th>Dates</th>
<th>Time</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>In person (majority of class session)</td>
<td>Tuesdays</td>
<td>6:30 pm to 8:30 pm</td>
<td>Weekly</td>
</tr>
<tr>
<td>Virtual synchronous</td>
<td>Tuesdays</td>
<td>6:30 pm to 8:30 pm</td>
<td>Occasionally</td>
</tr>
</tbody>
</table>

☒ Attendance at in person and synchronous online sessions is required
☒ Missed work should be completed within 48 hours
☒ A recording will be provided for relevant virtual synchronous sessions

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.

NOTE: If a COVID-19 resurgence prevents face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at times indicates in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). Remaining assessments may be conducted online at the discretion of the instructor.

5. Learning Outcomes

In recent years, profound advances across multiple disciplines have led to an improved understanding of cancer biology and the delivery of advanced multi-disciplinary cancer care. Providing our undergraduate students with state-of-the-art knowledge of the complex field of cancer research requires the delivery of information related to translational aspects of cancer treatment, in which research discovered at the lab bench is translated into treatments that benefit our cancer patients. This undergraduate training module and Honors Specialization degree focusing on Biochemistry and Cancer Biology provides a coordinated approach to cancer for our Western undergraduate students. Hence, Biochemistry 4455G is the capstone course for this module that bridges knowledge pertaining to cancer research at the lab bench, with the application of this research at the patient's bedside. A unique aspect of Biochemistry 4455G is the Community Engaged Learning (CEL) components. This approach reflects Western’s promotion of CEL courses ‘which integrate service to the community with specific course curriculum’ and provide ‘hands-on, practical experience in the community’ allowing students to gain ‘a deeper understanding of course content as it applies to local and international contexts’. Partnering organizations are identified and coordinated through Western’s Community Engaged Learning Office.
Upon successful completion of this course, students will be able to:
- Define and describe the theoretical and practical nature of current issues that underscore translational cancer biology;
- Engage in project-based CEL with community partners and understand how issues related to cancer affect cancer patients, their families and the healthcare system;
- Work in teams, developing an implementation program in conjunction with the community partner;
- Display the ability to communicate complex information related to cancer to members of the public, including cancer patients and the community partner; and
- Identify, describe & analyze career opportunities in the field of cancer biology

6. Course Content and Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Instructor/Guest Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 04</td>
<td>Course Introduction and Orientation</td>
<td>Alison Allan, Sarah Mattonen, and CEL</td>
</tr>
<tr>
<td>2</td>
<td>Jan 11</td>
<td>Introductory Meetings with Community Partners</td>
<td>Alison Allan, CEL and Community Partners</td>
</tr>
<tr>
<td>3</td>
<td>Jan 18</td>
<td>'Introduction to Translational Cancer Research' Lecture and Discussion Team Work on Partnered Projects</td>
<td>Alison Allan</td>
</tr>
<tr>
<td>4</td>
<td>Jan 25</td>
<td>'Skills for Accessing the Scientific Literature' Lecture and Discussion Team Work on Partnered Projects</td>
<td>Guest Speaker: Kelly Hatch, Western Libraries (host: Alison Allan)</td>
</tr>
<tr>
<td>5</td>
<td>Feb 01</td>
<td>'Mattonen Lab Translational Research' Lecture and Discussion Team Work on Partnered Projects</td>
<td>Sarah Mattonen</td>
</tr>
<tr>
<td>6</td>
<td>Feb 08</td>
<td>'Allan Lab Translational Research' Lecture and Discussion Team Work on Partnered Projects</td>
<td>Alison Allan</td>
</tr>
<tr>
<td>7</td>
<td>Feb 15</td>
<td><strong>Midterm Project Update Presentations</strong></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Feb 22</td>
<td>Reading Week</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Mar 01</td>
<td>'Clinical Trials in Oncology' Lecture and Discussion Team Work on Partnered Projects</td>
<td>Guest Speaker: Richard McClelland, Cancer Clinical Trials Unit, LRCP (host: Alison Allan)</td>
</tr>
<tr>
<td>10</td>
<td>Mar 08</td>
<td>'Quality Cancer Care’ Lecture and Discussion</td>
<td>Guest Speaker: Dr. David Palma; Radiation Oncologist, LRCP (host: Sarah Mattonen)</td>
</tr>
<tr>
<td>11</td>
<td>Mar 15</td>
<td>'The Patient Perspective’ Panel Discussion</td>
<td>Alison Allan and Guest Panelists</td>
</tr>
<tr>
<td>12</td>
<td>Mar 22</td>
<td>'Careers in Oncology' Panel Discussion</td>
<td>Sarah Mattonen and Guest Panelists</td>
</tr>
<tr>
<td>13</td>
<td>Mar 29</td>
<td><strong>Final Project Presentations</strong></td>
<td></td>
</tr>
</tbody>
</table>
7. Participation and Engagement

- Students are expected to participate and engage with as much as possible during in-person and online synchronous class sessions.
- Students can also participate by interacting in the OWL forum with their peers and instructors.

8. Evaluation

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

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Format</th>
<th>Weighting</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEL Project Rankings</td>
<td>Written rankings &amp; justification</td>
<td>N/A</td>
<td>Jan 14</td>
</tr>
<tr>
<td>Student and Partner Expectations Agreement</td>
<td>Group discussion with partner and written agreement</td>
<td>N/A</td>
<td>Jan 26</td>
</tr>
<tr>
<td>Reflection: Translational Cancer Research</td>
<td>Written assignment</td>
<td>15%</td>
<td>Feb 11</td>
</tr>
<tr>
<td>Midterm Project Update</td>
<td>Oral presentation (Team)</td>
<td>10%</td>
<td>Feb 15</td>
</tr>
<tr>
<td>Reflection: The Patient Perspective</td>
<td>Multimedia assignment</td>
<td>15%</td>
<td>Mar 19</td>
</tr>
<tr>
<td><strong>Community Partner Project (50% total)</strong></td>
<td>Oral presentation (Team)</td>
<td>10%</td>
<td>March 29</td>
</tr>
<tr>
<td></td>
<td>Final written report (Team)</td>
<td>25%</td>
<td>April 4</td>
</tr>
<tr>
<td></td>
<td>Peer evaluation of teamwork</td>
<td>5%</td>
<td>April 4</td>
</tr>
<tr>
<td></td>
<td>Community partner evaluation</td>
<td>10%</td>
<td>April 18</td>
</tr>
<tr>
<td>Final Personal Reflection</td>
<td>Written or video assignment</td>
<td>10%</td>
<td>April 18</td>
</tr>
</tbody>
</table>

* (note: this course does not have a final exam)

- All assignments are due at 11:55 pm EST unless otherwise specified.
- Written assignments will be submitted to Turnitin (statement in policies below). Students will have a limit of 2 submissions to Turnitin.
- Rubrics will be used to evaluate assessments and will be posted with the instructions.
- A student may not receive the same grade as their group members if it is determined that the distribution of work was not equal.
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days.

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.

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

**Information about late or missed evaluations:**

- Late assessments without self-reported absences will be subject to a late penalty of 2%/day.
- Late assessments with self-reported absences should be submitted within 24 hours of the end of the 48-hour period unless a different arrangement with the instructor is made.
9. Communication:

- Students should check the OWL site regularly
- Emails will be monitored daily; students will receive a response in 24 – 48 hours
- This course will use the OWL forum for discussions
- Students should post all course-related content on the discussion forum so that everyone can access answers to questions

10. Office Hours:

Regular office hours will not be held; please contact Dr. Allan (aallan3@uwo.ca) or Dr. Mattonen (sarah.mattonen@uwo.ca) to arrange meetings as needed.

11. Resources

- All resources will be posted in OWL
- There is no required textbook

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:

- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared
- Recordings are not permitted (audio or video) without explicit permission
- Permitted recordings are not to be distributed
- All recorded sessions will remain within the course site or unlisted if streamed
- Students are expected to follow in-person and online etiquette expectations provided on OWL.
  Note that disruptive behaviour of any type, including inappropriate use of the chat function in online sessions, is unacceptable and may result in disciplinary measures under the Student Code of Conduct.

Some of the remote learning sessions for this course may be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes. Please contact the instructor if you have any concerns related to session recordings. Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.
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. Success in this course is heavily dependent on participation in class and team discussions, and with keeping open lines of communication with your community partner, your team members, and the course coordinator.
2. Do not be afraid to ask questions. If you are struggling with a topic or your team project, check the online discussion boards and/or contact the course coordinators - we are here to help!
3. Invest in a planner or application to keep track of your courses. 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.
4. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
5. Follow weekly checklists created on OWL or create your own to help you stay on track.
6. Take notes as you go through the course material. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively.
7. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.

14. Western Academic Policies and Statements

Absence from Course Commitments

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. Science and BMSc students can contact academic counselling through the Help Portal: https://www.uwo.ca/sci/counselling/

Accommodation for Religious Holidays

The policy on Accommodation for Religious Holidays can be viewed here.

Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents. To provide an opportunity for
students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examinations dates. These dates as well as other important information about examinations and academic standing can be found here.

**Academic Offenses**

“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.

**Discovery Credit Statement**

Students are permitted to designate up to 1.0 Discovery Credit course (or equivalent) for pass/fail grading that can be counted toward the overall course credits required for their degree program. The details of this policy and the deadlines can be found here.

**Essay Course Guidelines**

The guidelines for the minimum written assignments refer to the cumulative amount of written work in a course but excludes written work in examinations. You can read about essay course guidelines here.

An essay course must normally involve total written assignments (essays or other appropriate prose composition, excluding examinations) as follows:

- Full course (1000 to 1999): at least 3000 words
- Half course (1000 to 1999): at least 1500 words
- Full course (2000 and above): at least 5000 words
- Half course (2000 and above): at least 2500 words

The structure of the essay course must be such that in order to pass the course, the student must exhibit some minimal level of competence in essay writing and the appropriate level of knowledge of the content of the course.

**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

Cell Phone and Electronic Device Policy (for in-person tests and exams)

The Schulich School of Medicine & Dentistry is committed to ensuring that testing and evaluation are undertaken fairly across all our departments and programs. For all tests and exams, it is the policy of the School that any electronic devices, i.e., cell phones, tablets, cameras, or iPod are strictly prohibited. These devices MUST be left either at home or with the student’s bag/jacket at the front of the room and MUST NOT be at the test/exam desk or in the individual’s pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam. Non-programmable calculators are only allowed when indicated by the instructor. The program is not responsible for stolen/lost or broken devices.

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