

COURSE SYLLABUS

COURSE TITLE: BIOL 90.3 Introduction to Biology	
COURSE CODE: 86943	TERM: Term 1 (Fall) 2018-19
COURSE CREDITS: Non degree-credit	DELIVERY: 5 contact hours per week 2L3S
<p>CLASS SECTION: 01</p> <p>LECTURES/TUTORIALS LOCATION: room 122 WPT Biology Teaching Wing</p> <p>MEETING TIMES: Wednesday 12:30 to 2:50 pm <u>AND</u> Thursday 9:00 am to 11:20 am</p> <p>WEBSITE: see PAWS/Blackboard</p>	

Course Description

Designed as a preparatory access course for students who were unable to access, or need to review, 30-level biological science curricula. Content focuses on core concepts, terminology, problem solving strategies, and skills foundational to success in post-secondary biological sciences and related degree paths.

Prerequisite(s): Grade 12 Diploma or equivalent

Note: BIOL 90 fulfills prerequisite requirements for BIOL 120 and BIOL 121, though BIOL 90 is not directly equivalent to Biology 30. BIOL 90 is a not-for-credit course and does not contribute to the course requirements for a university degree.

Course Themes

The course will facilitate student learning in the following themes:

- Physiology/Health
- Genetics/Cell biology
- Ecology/Environment
- Biodiversity/Evolution

Learning Outcomes

Upon successful completion of this course, students will have reliably demonstrated the ability to:

1. Analyze case studies within the contents of the course themes;
2. Find, learn and interpret problem-related concepts and incorporate new concepts in the analysis of the case studies;
3. Integrate multiple sources of information to gain a better understanding of the problem;
4. Clearly articulate the conceptual knowledge related to the problem/issue in the form of written and oral presentations;
5. Actively participate in class discussion and other collaborative tasks;
6. Demonstrate leadership roles and responsibilities.

Note: The University of Saskatchewan's Learning Charter is intended to define aspirations about the learning experience that the University aims to provide, and the roles to be played in realizing these aspirations by students, instructors and the institution. A copy of the Learning Charter can be found at http://www.usask.ca/university_secretary/LearningCharter.pdf.

More information on University policies on course delivery, examinations and assessment of student learning can be found at: <http://policies.usask.ca/policies/academic-fairs/academiccourses.php>

Detailed Course Schedule

Week/ Dates	Major Activities
Week 1 Sept 5 & 6	Session A (2.5 hours) Sept 5 Wed pm <ul style="list-style-type: none">• Course opening/introductions• Telling our stories & taking our pictures Session B (2.5 hours) Sept 6 Thurs am <ul style="list-style-type: none">• Using PAWS/Blackboard/other USask web resources• Overview of the course and its objectives• Learning to work together
Week 2 Sept 12 & 13	Session A (2.5 hours) Sept 12 Wed pm <ul style="list-style-type: none">• Learning tour about the Department of Biology and College Session B (2.5 hours) Sept 13 Thurs am <ul style="list-style-type: none">• Learning tour in nature
Week 3 Sept 19 & 20	Session A (2.5 hours) Sept 19 Wed pm <ul style="list-style-type: none">• Course learning assessment• Practice quiz• Introductory case study Session B (2.5 hours) Sept 20 Thurs am <ul style="list-style-type: none">• Finish group introductory case study work• Learning from a lecture environment• Debrief about the case; instructions for the Reflection Essay• Distribution of next week's case study

Week/ Dates	Major Activities
Week 4 Sept 26 & 27	Case Study #1 (led by Manar Angrini) Session A (2.5 hours) Sept 26 Wed pm <ul style="list-style-type: none"> • Reflection Essay due this day (September 26) • Case scenario review; search for background knowledge • Case discussion (students & instructor) Session B (2.5 hours) Sept 27 Thurs am <ul style="list-style-type: none"> • Group discussion of research • Case Objectives Review/Completion of Handout Material • Jigsaw activity
Week 5 Oct 3 & 4	Case Study #1 (continued) Session C (2.5 hours) Oct 3 Wed pm <ul style="list-style-type: none"> • Review of jigsaw activity results and case learning objectives • Build and finalize power-point presentations Session D (2.5 hours) Oct 4 Thurs am <ul style="list-style-type: none"> • Topic presentations; Q & A • Upload presentations and completed handouts to Blackboard • Distribution of next week's case study
Week 6 Oct 10 & 11	<i>Oct 10 - 15 minute quiz on the concepts learned from Case Study #1</i> Case Study #2 (led by Neil Chilton) Session A (2.5 hours) Oct 10 Wed pm <ul style="list-style-type: none"> • Case scenario review; search for background knowledge • Case discussion (students & instructor interaction) Session B (2.5 hours) Oct 11 Thurs am <ul style="list-style-type: none"> • Group discussion of research • Case Objectives Review/Completion of Handout Material • Jigsaw activity
Week 7 Oct 17 & 18	Case Study #2 (continued) Session C (2.5 hours) Oct 17 Wed pm <ul style="list-style-type: none"> • Review of jigsaw activity results and case learning objectives • Build and finalize power-point presentation Session D (2.5 hours) Oct 18 Thurs am <ul style="list-style-type: none"> • Topics presentation; Q & A • Upload presentations and completed handouts to Blackboard • Distribution of next week's Case Study
Week 8 Oct 24 & 25	<i>Oct 24 - 15 minutes quiz on the concepts learned from Case Study # 2</i> Case Study #3 (led by Tracy Marchant) Session A (2.5 hours) Oct 24 Wed pm <ul style="list-style-type: none"> • Case scenario review; search for background knowledge • Case discussion (students & instructor interaction) Session B (2.5 hours) Oct 25 Thurs am <ul style="list-style-type: none"> • Group discussion of research • Case Objectives Review/Completion of Handout Material • Jigsaw activity

Week/ Dates	Major Activities
Week 9 Oct 31 & Nov 1	Case Study #3 (continued) Session C (2.5 hours) Oct 31 Wed pm <ul style="list-style-type: none"> Review of jigsaw activity results and case learning objectives Build and finalize power-point presentation Session D (2.5 hours) Nov 1 Thurs am <ul style="list-style-type: none"> Topic presentations; Q & A Upload presentations and completed handouts Distribution of next week's Case Study
Week 10 Nov 7 & 8	<i>Nov 7 - 15 minute quiz on the concepts learned from Case Study #3</i> Case Study #4 (led by Neil Chilton) Session A (2.5 hours) Nov 7 Wed pm <ul style="list-style-type: none"> Case scenario review; search for background knowledge Case discussion (students & instructor interaction) Session B (2.5 hours) Nov 8 Thurs am <ul style="list-style-type: none"> Group discussion of research Case Objectives Review/Completion of Handout Material Jigsaw activity
Nov 14 & 15	<i>Break Week – No Classes</i>
Week 11 Nov 21 & 22	Case Study #4 (continued) Session C (2.5 hours) Nov 21 Wed pm <ul style="list-style-type: none"> Review of jigsaw activity results and case learning objectives Build and finalize power-point presentation Session D (2.5 hours) Nov 22 Thurs am <ul style="list-style-type: none"> Topics presentation; Q & A Upload presentations and completed handouts Distribution of next week's Case Study (Case Study #5)
Week 12 Nov 28 & 29	<i>Nov 28 - 15 minute quiz on the concepts learned from Case Study #4</i> Session A (2.5 hours) Nov 28 Wed pm <ul style="list-style-type: none"> Course Review Session B (2.5 hours) Nov 29 Thurs pm <ul style="list-style-type: none"> Course Review (continued) Take home the open-book Final Exam assignment
Week 13 Dec 5 & 6	<i>Dec 5 – Final Exam Answers to be handed in by 3:00 pm</i> No other course activity scheduled for Dec 5 Dec 6 – individual debrief with instructors/assessment of course components 1 through 5.

Course Overview & Structure:

The Biol 90 course consists of up to 5 hours of in-class time per week. It is uniquely structured, and encompasses a specific teaching methodology. Unlike traditional courses, the instruction methodology will be case-based and problem-solving oriented where the instructor will play a facilitating role. It is a non-credit, non-degree level course, the completion of which is on a pass/fail basis.

The course involves 4 cases that will be described, discussed, analyzed and presented. Each case will be investigated over a two-week period as follows:

Case scenario review (Session A): Students will be seated in groups of 4 and will have access to the case in advance. Both the instructor and the students will go over the case in general during which students' reflections, questions, and inquiries are facilitated.

Main Group work (Session A & B): Each group will investigate the case following one of the main course themes (Physiology/Health; Genetics/Cell Biology; Ecology/Environment; Biodiversity/Evolution). For each theme, a written handout with instructions for investigation of the case as well as related questions is provided to a group. The investigation of each topic requires the group to study related concepts, search multiple resources, explore and interpret findings, and reach a conclusion(s). During students' investigation, discussion and analysis, the instructor will rotate among the groups to facilitate the activity and support the groups. In subsequent cases, the groups are assigned a course theme different than the ones they were assigned in the previous case on a rotational basis.

Jigsaw activity (Session B & C): In the jigsaw activity, new groups will be formed with a different combination of students in each. Each of these new groups includes a representative(s) from one of the original groups. The representative(s) will be responsible for teaching the rest of the group members the theme that was investigated in his/her original group.

PowerPoint presentations (Session C): Each group prepares a PowerPoint presentation using their research findings to summarize the relevant case-learning objectives. The group then nominates one member to present the slides. Eventually, every student is expected to present a research finding objective at one point throughout the course.

Case wrap-up (Session D): All students and the instructor will convene as one group for the students to present their case summaries. Each presentation will approximate 15-minutes in duration with extra time allowed for questions and answers. Student presentations and completed handouts from the group work must be uploaded to Blackboard for the rest of the class to review. The group discussion should address all case learning objectives, summarize, reflect and combine the conclusions from the four course themes. The next case will be introduced at the end of the wrap-up

Instructors & Their Contact Info:

Manar Angrini office location: room 220.2 WPT CSRB addition
phone: 306-966-4437
email: manar.angrini@usask.ca

Neil Chilton office location: room 320.7 WPT CSRB addition
phone: 306-966-4407
email: neil.chilton@usask.ca

Tracy Marchant office location: 120.3 WPT CSRB addition
phone: 306-966-4420
email: tracy.marchant@usask.ca
Twitter: @profmbiology

Office Hours:

Generally speaking, the instructors above will be available in their offices on a drop-in basis. However, please note that all instructors have other commitments that may take them away from their office. Specific appointments can be set by email or over the phone. Email responses to specific questions about course material are at the discretion of each instructor.

Instructor Profiles & Other Information:

All of the instructors hold a Doctor of Philosophy (PhD). We will talk a little about ourselves in the very first meeting of the course.

Required & Supplementary Resources

Textbook: No textbook required

Facilities Needed: web connected workstations and individual devices; projector system; tables that can be arranged to facilitate small group work and interaction. Resource material: a selection of textbooks; other printed resources; exhibit material as appropriate (e.g. microscopes and slides, living or preserved specimens).

Land Acknowledgement

As we gather here today, we acknowledge we are on Treaty Six Territory and the Homeland of the Métis. We pay our respect to the First Nation and Métis ancestors of this place and reaffirm our relationship with one another. We recognize that in the course of your studies you will spend time learning in other traditional territories and Métis homelands. We wish you safe, productive and respectful encounters in these places.

Integrity Defined (from the Office of the University Secretary)

The University of Saskatchewan is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Student Conduct & Appeals section of the University Secretary Website and avoid any behavior that could potentially result in suspicions of

cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University. For more information on what academic integrity means for students see the Student Conduct & Appeals section of the University Secretary Website at:

<http://www.usask.ca/secretariat/index.php>. All students should also read and be familiar with the Regulations on Academic Student Misconduct as well as the Standard of Student Conduct in Non-Academic Matters and Procedures for Resolution of Complaints and Appeals available on the University Secretary Website.

Student Supports

Student Learning Services

Student Learning Services (SLS) offers assistance to U of S undergrad and graduate students. For information on specific services, please see the SLS web site

<http://library.usask.ca/studentlearning/>.

Student and Enrolment Services Division

The Student and Enrolment Services Division (SESD) focuses on providing developmental and support services and programs to students and the university community. For more information, see the students' web site <http://students.usask.ca>.

Financial Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact Student Central

(<https://students.usask.ca/student-central.php>).

Aboriginal Students Centre

The Aboriginal Students Centre (ASC) is dedicated to supporting Aboriginal student academic and personal success. The centre offers personal, social, cultural and some academic supports to Métis, First Nations, and Inuit students. The centre is also dedicated to intercultural education, bringing Aboriginal and non-Aboriginal students together to learn from, with and about one another in a respectful, inclusive and safe environment. Students are encouraged to visit the ASC's Facebook page (<https://www.facebook.com/aboriginalstudentscentre/>) to learn more.

International Student and Study Abroad Centre

The International Student and Study Abroad Centre (ISSAC) supports student success in their international education experiences at the U of S and abroad. ISSAC is here to assist all international undergraduate, graduate, exchange and English as a Second Language students and their families in their transition to the U of S and Saskatoon. ISSAC offers advising and support on all matters that affect international students and their families and on all matters related to studying abroad. Please visit students.usask.ca for more information.

College Supports

Students in Arts & Science are encouraged to contact the Undergraduate Student Office and/or the Trish Monture Centre for Success with any questions on how to choose a major; understand program requirements; choose courses; develop strategies to improve grades; understand university policies and procedures; overcome personal barriers; initiate pre-career

inquiries; and identify career planning resources. Contact information is available at:
<http://artsandscience.usask.ca/undergraduate/advising/>

Examinations through Access and Equity Services (AES)

Students who have disabilities (learning, medical, physical, or mental health) are strongly encouraged to register with AES if they have not already done so. Students who suspect they may have disabilities should contact AES for advice and referrals. In order to access AES programs and supports, students must follow AES policy and procedures. For more information, check <https://students.usask.ca/health/centres/access-equity-services.php> or contact AES at 966-7273 or aes@usask.ca.

Students who are in need of accommodation for the course must present the appropriate letter from AES to the course coordinator. Students registered with AES may require alternative arrangements for examinations. Students must arrange such accommodations through AES by their stated deadlines.

Recording of the Course

Students are not allowed to record the lectures in this course, except with the permission of the instructors or as provided for by arrangements with Access and Equity Services. Any recording made under these provisions are to only be used for the personal learning of the student who made the recording.

Copyright

Course materials are provided to you based on your registration in a class, and anything created by your professors and instructors is their intellectual property, unless materials are designated as open education resources. This includes exams, PowerPoint/PDF slides and other course notes. Additionally, other copyright-protected materials created by textbook publishers and authors may be provided to you based on license terms and educational exceptions in the Canadian Copyright Act (see <http://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>).

Before you copy or distribute others' copyright-protected materials, please ensure that your use of the materials is covered under the University's Fair Dealing Copyright Guidelines available at <https://library.usask.ca/copyright/general-information/fair-dealing-guidelines.php>. For example, posting others' copyright-protected materials on the open web is not covered under the University's Fair Dealing Copyright Guidelines, and doing so requires permission from the copyright holder.

For more information about copyright, please visit <https://library.usask.ca/copyright/index.php> where there is information for students available at <https://library.usask.ca/copyright/students/rights.php>, or contact the University's Copyright Coordinator at <mailto:copyright.coordinator@usask.ca> or 306-966-8817.