COURSE OUTLINE

1. **Course:** SCIE 311, Write & Review Scientific Reports - Winter 2020

**Course Outcomes:**
- Reading scientific papers and identifying key conclusions in order to write a well-supported argument
- Searching for scientific information using a wide range of library skills and properly documenting those sources
- Recognizing milestones in the writing process and beginning to develop a personal approach to any writing assignment
- Identifying essential formatting and style elements of scientific writing
- Giving and receiving peer feedback throughout the writing process by working effectively as part of a team.

Lecture 01: TR 09:30 - 10:45 in ES 920

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Email</th>
<th>Phone</th>
<th>Office</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teddi Herring</td>
<td><a href="mailto:tajherri@ucalgary.ca">tajherri@ucalgary.ca</a></td>
<td></td>
<td>EEEL 141B</td>
<td></td>
</tr>
</tbody>
</table>

Lecture 02: TR 11:00 - 12:15 in ES 920

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Email</th>
<th>Phone</th>
<th>Office</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Nicole Sandblom</td>
<td><a href="mailto:nicole.sandblom@ucalgary.ca">nicole.sandblom@ucalgary.ca</a></td>
<td>403 210-9816</td>
<td>SA 144J</td>
<td>TBA</td>
</tr>
</tbody>
</table>

Lecture 03: TR 14:00 - 15:15 in ES 920

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Email</th>
<th>Phone</th>
<th>Office</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Glenn Dolphin</td>
<td><a href="mailto:glenn.dolphin@ucalgary.ca">glenn.dolphin@ucalgary.ca</a></td>
<td>403 220-6025</td>
<td>ES 134</td>
<td>By appointment</td>
</tr>
</tbody>
</table>

**Coordinator(s)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
<th>Office</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Nicole Sandblom</td>
<td><a href="mailto:nicole.sandblom@ucalgary.ca">nicole.sandblom@ucalgary.ca</a></td>
<td>403 210-9816</td>
<td>SA 144J</td>
<td>TBA</td>
</tr>
</tbody>
</table>

**Rationale:**

*Writing and Reviewing Scientific Reports* is the writing course offered by Faculty of Science and the Natural Sciences Program. The overarching goal of this class is to help you develop writing strategies that will be useful throughout your degree and career in science.

**Course Aims**

During this course, you will prepare a major paper reviewing a scientific topic of your choice. Milestone assignments and various activities will lead you through the topic selection process and through the important stages of reviewing and revising. By focusing on excellence in your written communication, you will develop essential skills for your academic and career development.

**What will you write in SCIE311?**

Our course is designed so that you can think about writing as a process. You will write and submit milestone assignments leading up to your final paper as Version 3 at the end of the semester: Understanding Academic Integrity, Paper Plan Assignment, Version 1, Version 2. You will give and receive feedback from your peers for these writing assignments. A variety of Writing Activities will support your writing process.

**Course Site:**

D2L: SCIE 311 L01-(Winter 2020)-Write & Review Scientific Reports

**Note:** Students must use their U of C account for all course correspondence.

2. **Requisites:**

See section 3.5.C in the Faculty of Science section of the online Calendar.
Prerequisite(s):
Any 200-level course offered by the Faculty of Science.

Note(s):
 a. Only declared majors in Chemistry, Applied Chemistry, Geology, Applied and Environmental Geology, Petroleum Geology or the Geosciences program will be admitted prior to the date registration restrictions are lifted. Consult the Enrolment Services website (http://www.ucalgary.ca/registrar/) for registration details.

3. Grading:

The University policy on grading and related matters is described in F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

<table>
<thead>
<tr>
<th>ASSESSMENT COMPONENTS</th>
<th>Description &amp; Due Dates</th>
<th>Weight</th>
<th>Aligned to Course Learning Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflection Writing Activities (total = 12%)</td>
<td>Part 1: January 24</td>
<td>2%</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Part 2: February 25</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part 3: March 12</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part 4: March 31</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part 5: April 15</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Individual Writing Activities (total = 16%)</td>
<td>Tutorial Activities</td>
<td>8%</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td></td>
<td>Individual Quizzes (iRATs): January 16, February 11, March 3, March 17</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Team-scored Writing Activities (total = 10%)*</td>
<td>Team Quizzes (tRATs): January 16, February 11, March 3, March 17</td>
<td>4%</td>
<td>1, 2, 3, 4, 5</td>
</tr>
<tr>
<td></td>
<td>Team Class Activities</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Plan Writing Assignments (total = 12%)</td>
<td>Understanding Academic Integrity Assignment: January 24</td>
<td>2%</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Plan Assignment: February 5</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Version 1 Writing Assignments (total = 14%)</td>
<td>Version 1 Paragraph: February 28</td>
<td>10%</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td></td>
<td>Version 1 TA Review: February 28</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Version 2 Writing Assignments (total = 18%)</td>
<td>Version 2 Paragraph: March 20</td>
<td>10%</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td></td>
<td>Version 2 Cover Letter &amp; TA Review: March 20</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Version 3 Writing Assignments (total = 18%)</td>
<td>Version 3: April 8</td>
<td>16%</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td></td>
<td>Version 3 Cover Letter: April 8</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

<table>
<thead>
<tr>
<th>Minimum % Required</th>
<th>A+</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D+</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>96%</td>
<td>90%</td>
<td>86%</td>
<td>82%</td>
<td>78%</td>
<td>74%</td>
<td>70%</td>
<td>66%</td>
<td>62%</td>
<td>56%</td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

Your grade is determined by marks for both individual work and team-scored components (i.e. team quizzes and team in-class activities).

***At the end of the term, you will evaluate the contributions of the other members of your team using an online survey. Each team member will rate you using parameters relating to teamwork. We calculate the average of these ratings and determine your Peer Evaluation Score (PES) based on your teammates' evaluation. Your total Team-scored Writing Activities score will be multiplied by the PES to determine the final mark for the teamwork component of the course.

Communication, both oral and written form, is the cornerstone of this course, and the quality of your writing will factor into the evaluation of all assignments. Constructive critical analysis of peer work is also an essential course component. Students who regularly attend and actively participate in all classes and tutorials typically succeed in this class. You are encouraged to meet with instructors periodically during the semester to discuss your progress. The Detailed Syllabus for Science 311 is provided in this document and also as a separate file on D2L.
Most assignments will be submitted electronically. Further details about these requirements will be provided in class and on D2L. A detailed calendar and schedule is provided on D2L.

**Additional Academic Integrity Information:** All work submitted for this class (whether as a draft or for final grading) is held to the strictest standards for intellectual honesty. During the first few weeks of the semester, you will complete the Understanding Academic Integrity Assignment. You must successfully complete this assignment before any other assignments will be graded and your score will be 50% or 100%. Note that you can only score 100% if your first submission is complete and sufficient. See the scoring rubric on D2L.

We encourage SCIE311 students to discuss academic integrity issues surrounding assignments with TAs and instructors. Please come speak with us if you feel like you are about to make a bad decision with respect to your academic integrity.

4. **Missed Components Of Term Work:**

In the event that a student misses the midterm or any course work due to illness, supporting documentation, such as a medical note or a statutory declaration will be required (see Section M.1; for more information regarding the use of statuary declaration/medical notes, see FAQ). Absences must be reported within 48 hrs.

The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in Section 3.6. It is the student's responsibility to familiarize themselves with these regulations. See also Section E.3 of the University Calendar.

Any student who is absent from classes or tutorials or fails to complete an assignment or similar set piece of work for legitimate reasons (illness, religious conviction or domestic affliction) must discuss an alternative course of action with the instructor. **Please note that the coordinator needs to be informed of any missed components within 48 hours.**

In order for the peer review process to be successful, your work must be completed on time (and sometimes brought to class). Depending on the type of peer review (in-class or electronic), you will not be able to participate if you do not bring a copy of your work to class or if your work is not submitted on time. Therefore, if your paper is late/not brought to class, you may not be able to participate in the review process and may forfeit the grades associated with this assignment. Valid reasons for missing a deadline are the same criteria as those for deferred finals: documented cases of serious family afflictions or illness. Provide supporting documents as described in N.1 of the online University Calendar. In these cases only, you will be granted an excused absence or extension and you will not be penalized provided you contact the Course Coordinator within 48 hours. Your overall mark for the course may be prorated to account for any excused work. Please see the detailed syllabus in Section 13.

5. **Scheduled Out-of-Class Activities:**

There are no scheduled out of class activities for this course.

6. **Course Materials:**

   **Learning Resources:**

   The required handouts and readings for this course are available through postings on D2L. Students will be responsible to bring paper or electronic handouts to class and to keep current with the reading material posted on D2L.

   **Online Course Components:**

   ITP Metrics provides some teamwork resources. This system involves secure web-based tools for team peer evaluations. These tools are free to all students and are not dependent on prior access.

7. **Examination Policy:**

No aids are allowed on tests or examinations. iRAT and tRAT quizzes are closed book and in-class.

**Missed quizzes may not be written at a later time.**

Students should also read the Calendar, Section G, on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.
9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section E.2 of the University Calendar.

10. **Human Studies Statement:**

If you agree, your course work may be used for research purposes. Your responses will remain anonymous and confidential. Grouped data (no individual responses) may be used in academic presentations and publications. Participation in such research is voluntary and will not influence grades in this course. Students' signed consent forms will be withheld from instructors until after final grades are submitted. More information will be provided at the time student participation is requested.

See also Section E.5 of the University Calendar.

11. **Reappraisal Of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See Section I.3 of the University Calendar.

a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within ten business days of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections I.1 and I.2 of the University Calendar.

b. **Final Exam:** The student shall submit the request to Enrolment Services. See Section I.3 of the University Calendar.

Note that if you are concerned about the comments on your assignment or have questions about the grade you have earned, you should first email the instructor or TA (depending on who marked the assignment).

12. **Other Important Information For Students:**

a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).

b. **SU Wellness Center:** The Students Union Wellness Centre provides health and wellness support for students including information and counselling on physical health, mental health and nutrition. For more information, see www.ucalgary.ca/wellnesscentre or call 403-210-9355.

c. **Sexual Violence:** The University of Calgary is committed to fostering a safe, productive learning environment. The Sexual Violence Policy (https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf) is a fundamental element in creating and sustaining a safer campus environment for all community members. We understand that sexual violence can undermine students' academic success and we encourage students who have experienced some form of sexual misconduct to talk to someone about their experience, so they can get the support they need. The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at 403-220-2208.

d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. These are only examples.
e. **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points.

f. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at [procedure-for-accommodations-for-students-with-disabilities.pdf](mailto:procedure-for-accommodations-for-students-with-disabilities.pdf).

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Program Director of the Natural Sciences Program, Dr. Edwin Cey by email ntsdirector@ucalgary.ca or phone 403 220-8393. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See Section E.4 of the University Calendar.

g. **Safewalk:** Campus Security will escort individuals day or night (See the Campus Safewalk website). Call 403-220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

h. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see [Legal Services website](mailto:LegalServices).**

i. **Student Union Information:** VP Academic, Phone: 403-220-3911 Email: suvaca@ucalgary.ca. SU Faculty Rep., Phone: 403-220-3913 Email: sciencerepi@su.ucalgary.ca. Student Ombudsman, Email: ombuds@ucalgary.ca.

j. **Internet and Electronic Device Information:** Unless instructed otherwise, cell phones should be turned off during class. All communication with other individuals via laptop, tablet, smart phone or other device is prohibited during class unless specifically permitted by the instructor. Students that violate this policy may be asked to leave the classroom. Repeated violations may result in a charge of misconduct.

k. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (USRI) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.

l. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited) to examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or non-academic misconduct, in addition to any other remedies available at law.

---

**FACULTY OF SCIENCE — NATURAL SCIENCES PROGRAM**

**SCIENCE 311: WRITING & REVIEWING SCIENTIFIC REPORTS**

**DETAILED COURSE SYLLABUS** - Note that this file is available separately on D2L

I. **Rationale:**

*Writing and Reviewing Scientific Reports* is the writing course offered by Faculty of Science and the Natural Sciences Program. The overarching goal of this class is to help you develop writing strategies that will be useful throughout your degree and career in science.

II. **Course Aims and Objectives:**

**Aims**

During this course, you will prepare a major paper reviewing a scientific topic of your choice. Milestone assignments and various activities will lead you through the topic selection process and through the important stages of reviewing and revising. By focusing on excellence in your written communication, you will develop essential skills for your academic and career development.

**Course Outcomes:**

By the end of this course, students will develop a set of transferable skills by:

1. Reading scientific papers and identifying key conclusions in order to write a well-supported argument
2. Searching for scientific information using a wide range of library skills and properly documenting those sources
3. Recognizing milestones in the writing process and beginning to develop a personal approach to any writing assignment
4. Identifying essential formatting and style elements of scientific writing
5. Giving and receiving peer feedback throughout the writing process by working effectively as part of a team.

III. Responsibilities and Expectations
Science 311 is a writing course in the Faculty of Science. Writing papers is both challenging and informative. You will learn to critically and substantially revise your paper rather than simply making grammatical and superficial changes.

We note that successful students tend to:
- Come prepared to participate actively in class activities and tutorials.
- Read all material on Desire2Learn.
- Complete all assignments to the best of their ability.
- Submit all or most assignments on time.
- Provide thoughtful, well-organized, and critical suggestions to their peers during the review process.
- Reflect on their TA and peer reviews and incorporate suggestions into their papers.

What can you expect from us?
Most of this syllabus is directed at giving you information about the structure of the course, grading and assignment information and what we (the instructors) expect from you. However, we also recognize that there are certain expectations that we need to meet in order for you to have a positive learning experience in this class.

Specifically, we will:
- Be respectful of all persons in the class and create an environment where all opinions and comments are heard and valued.
- Be available outside of class time to discuss course work or other course concerns (or just to chat).
- Encourage you to be well read
- Provide you with instructional material that will enable you to excel in this class.
- Develop activities that allow you to build your writing skills.
- Assess all assignments fairly and provide suggestions and comments for improvement.

We are excited about this class and look forward to helping you improve as a writer.

IV. Format and Procedures:

Team-Based Learning:
This class is likely very different in format from others you encounter. In this class, we will be using a Team-Based Learning (TBL) approach. Our animation on D2L outlines the TBL approach in SCIE311.

In this process, you will spend many classes working in teams applying what you’ve learned from the assigned readings. Teams in TBL are different than the kind of group work you may have done in other classes: the instructor forms the teams (as described below) and you will work together throughout the term to complete course assignments and quizzes; team members also evaluate each other’s contributions to the group throughout the term. Before your team tackles an activity, TBL uses short quizzes to make sure you’ve got the basics from the required readings. They’re not ordinary quizzes, though: you take the quizzes both individually and as a team, and you get immediate feedback, so the quizzes function as learning tools. Some classes will involve lecturing but most of our class time will be spent on applying what we’ve learned either in your team or individually by working on your own writing-in-progress before you submit assignments.

Here are the basics of TBL in SCIE311:
1. We’ll form teams during the first class meeting. It’s an instructor’s job to make the teams as diverse as possible, so you will be divided in teams of about 6 students based on previous courses, your major/year, writing experience, and other factors that will help us form successful teams.
2. For each major unit in the course, you will be assigned some readings; we prepared Reading Guides for all assigned readings to help you focus on the most important points. At the beginning of the unit, you will take an individual quiz (~10 multiple-choice questions) called an "Individual Readiness Assessment Test" (iRAT) to see how well you’ve understood the concepts in the assigned reading. Quizzes missed without a valid excuse (medical or family emergency) will be awarded a mark of zero. Missed quizzes may not be written at a later time.
3. Right after taking the iRAT, you will take the same quiz with your team. This version is called a "Team Readiness Assessment Test" (tRAT). For the group quiz, you’ll use a special "scratch-off" answer sheet that immediately tells you whether you have the correct answer for full marks. If your team doesn’t choose the correct answer on the first try, you make a second choice for partial credit. If it takes you three tries to get the correct answer, you again earn partial credit for the item. The whole team earns the same score for the tRAT even if some students are absent.
4. When you’ve finished the tRAT, your team will have the opportunity to provide written feedback for the concepts that are still unclear or for any that would need more information.
5. Your instructor will use the individual and team scores as well as the written feedback to determine what material needs to be discussed and clarified in the subsequent class meetings. We’ll also incorporate any supplemental information that you’ll need to complete the Team Writing Activities in-class that involve application of what you learned in the readings. We will grade these activities and provide feedback via D2L. The whole team earns the same score for the activity even if some students are absent.
6. As described in the Course Outline, we will determine your Peer Evaluation Score (PES). Your total Team-scored Writing Activities score will be multiplied by the PES to determine the final mark for the teamwork component of the course.

What will you write in SCIE311?
Our course is designed so that you can think about writing as a process. You will write and submit milestone Assignments leading up to your final paper as Version 3 at the end of the semester: Understanding Academic Integrity, Paper Plan Assignment, Version 1, Version 2. You will give and receive feedback from your peers for these writing assignments. A variety of Writing Activities will support your writing process.

End-of-Semester Goal: Version 3
To write a brief, well-supported and documented review paper that provides analysis of on a topic of your choice.
Context: Regardless of the type of scientific writing you do, a key skill that you need to develop is identifying related research and discussing and analyzing the results and conclusions of all of the resources you find as a single, connected unit.
Readings for Topic A and classes will provide more resources for including a reference list (in CSE format) of all sources that you cited in your paper. Your reference list should be sorted into three sections titled: Research Papers, Review Papers, Other Instructor-Approved Sources. In class, we will help you identify a Question based on your interests and to find additional articles that allow you to answer the question.

Readings from Topic B and in-class activities will provide more instruction about how to use evidence from the results and discussion sections of these research papers. You must use at least six research papers that together with your other sources span the history of the topic.

Look at the authors in your list; all of your citations should not come from one research group.

Look at the dates on your list; established facts in the field will be from your Review Papers section or your Other Instructor Approved section. The evidence in your body should be mostly from more recent work. The actual dates for these papers will be very much dependent on the pace of research in the field you choose to write about; sometimes, papers that are ten years old are fine, but sometimes papers that are less than two years old are outdated!

Your TA will help critique your list, but don't hesitate to ask your instructor for advice!

Once you have found suitable resources, make notes on the key results and conclusions of the papers making special notes about how the papers fit together and help you to understand the question. In our library sessions, the librarians will teach you how to do a cited reference search, because this strategy will help you to find the more recent literature that you need. There are many paths that your paper can take and remember, a discovery in one area can allow for scientific discoveries in another!

Your paper needs to present a critical analysis of a segment of a body of knowledge. This kind of analysis is essential for all types of scientific writing – most notably introduction and discussion sections of research papers, field reports and literature reviews.

D2L provides templates to complete in Word for the Plan, Version 1, Version 2, & Version 3. Your Instructor will provide feedback and score your Version 3 using the Scoring Guide available on D2L.

Milestone: Paper Plan Assignment
This milestone assignment will allow you to focus on the important articles and ideas from your information search process and start to build your own interpretation and analysis leading to Version 1. You will critique a sample Plan in Class 4. You can review this example and your critique while you are building your own Plan. This kind of planning can help you generate ideas for your writing; consider your interpretations and conclusions from your research thus far in order to identify supporting details and missing pieces. We would like you to be flexible as you work on your Plan and start writing your Version 1, but you will commit to your overall topic as part of the approval process leading to this assignment.

Milestone: Version 1 Assignment
This milestone assignment will allow you to focus on writing paragraphs and including evidence from your cited sources in the body of your paper. You will critique an example paragraph in Class 9. Your TA will provide a review of your Version 1 and your Instructor will provide feedback and score the paragraph that you think is your best! You should change the colour of the text for the paragraph you would like to be scored.

Milestone: Version 2 Assignment
This milestone assignment will allow you to focus on your flow and style while revising your body and writing an Introduction. You will critique an example Introduction in Class 17. You will write a cover letter to your TA, then your TA will provide a review of your Version 2. Your Instructor will provide feedback and score the body paragraph that you think is your best from a different section of your paper than then one you selected for Version 1! You should change the colour of the text for the paragraph you would like to be scored.

V. Course Requirements:

1. Class Attendance & Scheduled Tutorial Attendance:
   - Arrive at class and your tutorial on time. Late arrivals and early departures can be disruptive and can result in you missing important information. We understand that there are special circumstances when you may have to arrive late or leave early; please make your arrival/departure as unobtrusive as possible and be sure to let your teammates know about your situation in advance of class.
   - Your team members will determine your PES score depending on your communication with your team.
   - Attend all scheduled Science 311 classes and tutorials. If you have to miss class, email the Course Coordinator ahead of time to find out if alternative arrangements are possible. If you are ill, email the Course Coordinator as soon as possible and make-up arrangements might be able to be planned. If your email concerns a tutorial session, you should cc to your TA so that s/he knows your situation.

2. Writing Activities:
Our goals for the Activities in this course are all intended to move you forward in your writing and to clarify communication of the course outcomes and how you can meet them! Our plans with scoring the Individual Activities are simple; we ask you to let us know if you are missing and we try to be flexible in encouraging participation, but credit is mostly for completion so we drop two zero completion scores at the end of the semester. Three Individual Activities are scored by the Instructor and these scores cannot be dropped.

Submissions:
   - Your Individual Activities will be mostly auto-scored via completion of D2L Quizzes.
   - Your Tutorial Activities will be completed on paper or submitted to D2L and scored by your TA.
   - Your Reflection Activities will be submitted to D2L Dropboxes and scored by your Instructor.
   - Your Team Activities will be submitted to D2L Dropboxes and scored by your instructor.

Late or Missing:
If you miss class or tutorial, you will not be able to participate completely in the writing activities completed in that class or tutorial. Contact the Course Coordinator (see 1. above). Many writing submissions will be due via D2L or as homework submitted at the beginning of class and depending on your circumstances, you may be able to hand these specific assignments in later. Deductions will be made for late or missing submissions without documentation of illness, etc. You will sometimes need to bring your writing for team members to read (see 3. below) and your team members will determine your PES score depending on your participation and communication surrounding your participation in team activities.

Peer Reviewing Expectations:
Peer review is an important component of this class and research into student learning clearly indicates that student writing improves when at least one peer review step is included before the submission of a final paper. In order for the peer review process to be successful, your work must be completed on time (and sometimes brought to class or tutorial). Depending on the type of peer review (in-class or electronic), you will not be able to participate if you do not bring a copy of your work to class or if your work is not submitted on time and will forfeit the grades associated with these activities.
3. Assignments (Plan, Version 1, Version 2, Version 3)

   **Submissions:**
   - Each Assignment will be submitted to D2L Dropboxes and scored by your Instructor.
   - You will respond to your TA in a Cover Letter attached to Version 2 and Version 3.
   - Your team will review your work after you submit to D2L Team Discussions.

   **What happens if you are late for any of these four major assignments?**
   For the four major assignments (the Plan, Version 1, Version 2, Version 3), we aim to balance being **fair** and **reasonable** about deadlines. We know that life happens during the semester. Let us know as soon as you realize you will be late! Your instructor will be able to help you plan the next steps.

   1. Since your submission affects several people (instructor, team members, TAs), we do have a late penalty of 10% per 24 hours.
   2. For these four assignments, you can have one **48 hour postponement** with no questions asked if you need it. You do need to let your instructor know that you are cashing in on this policy (See Step 1 above).
   3. In other cases that might need an **excused extension** (mental or physical health, emergencies, etc.), you will need documentation.


   These policies are especially helpful if you need to accommodate and reorganize several classes

   **Please come speak with us if you feel like you are about to make a bad decision with respect to your academic integrity.**

   **4. Re-grading of Assignments**

   If you are concerned about the comments on your assignment or have questions about the grade you have earned, you should email the instructor or TA (depending on who marked the assignment). If you think the mark earned is not appropriate, you should write an email letter to the Course Coordinator to present your argument. You must submit this information to the Course Coordinator within 10 business days of the date your mark on this assignment was made available to you via D2L. Please note: The assignment may be re-graded by another individual. The mark may go up or it may stay the same. In our experience with Science 311, the mark typically stays the same.

   **Team Contract Details:**

   **Rationale**

   To prepare you for the teamwork in professional school and/or the workforce, you will be assigned a team for the semester. Your team will work together to complete the collaborative team-scored assignments in Science 311 this semester.

   As you learned from the assigned readings about teams, there are four stages of team development. Writing a team contract can help a team reach the final or performing stage, at which point teams are highly effective. The process of generating a team contract can actually help jump-start a group's collaborative efforts by immediately focusing the team members on a definite task. The team members must communicate and negotiate in order to identify the quality of work they all wish to achieve, and the level of group participation and individual accountability they all feel comfortable with. A well-formulated team contract helps a team avoid problems that lead to a dysfunctional team and poor quality work.

   **Team Contract Activity**

   There are two major sections to a team contract:

   1. **Identification of expectations**
   2. **Specification of the consequences for failing to fulfill these expectations**

   Since the basic purpose of this team contract is to accelerate your team's development, to increase individual accountability for team tasks, and to reduce the possibility for team conflict, make your contract **as specific as possible**: the more specific that you can be about your team expectations and procedures, the greater chance you have for a successful team experience.

   - Read the draft Team Contract on the next page. A Word version of the contract will be available on D2L for your team to edit for submission.
   - Think about what other ground rules you think are necessary, and how you think your group should deal with failure to follow these ground rules.
   - Your team will discuss the contract in designated class time.
   - Once you have all agreed on the contract for your team, one team member will upload a signed version to the team **D2L Dropbox: Class 4 Team Contract** for approval by your instructor.

   **What if that your team is not working as well as you had hoped? (Despite the team contract)**

   This experience is normal but needs to be attended to immediately. Perhaps your team is simply not following the established contract procedures or roles as strictly as you should be, or perhaps you need to change some of the procedures or roles as outlined in your contract. Immediately discuss and resolve the challenges your team is facing; do not delay, as the problems will not go away by themselves. Don't forget that you can ask your instructor to help your group resolve the conflict so that you will have the most positive team experience possible.

   **Draft Team Contract Template is available on D2L**

   Science 311 Team Contract Semester ________ Team # ________

   The ground rules for our team are: [add additional rules as discussed by your team]

   - Come to all classes and on time
• Come prepared and ready to participate in the team
• Listen actively to what others have to contribute
• Be supportive of the efforts and initiatives of others
• [insert text here]
• [insert text here]
• [insert text here]

Our out-of-class communication plan will be:
[using the D2L Discussions, using other technology, etc. insert text here]

Our in-class plan for cell phones and device-multitasking will be:
[only use devices for team communication and team activity, etc. insert text here]

We will assign roles each class by:
[asking for volunteers, rotating by last name, etc. insert text here]

We agree that the consequences for failing to follow the above ground rules are:
[add additional consequences as discussed by your team]

• If a team member is unable to attend a class, s/he will notify the team ahead of time.
• If someone on the team is not paying attention during a team RAT or assignment (e.g., not listening; texting or emailing), other team members will point this out and s/he will immediately give his/her full attention to the task.
• If someone on the team is being too critical or otherwise unsupportive, other team members will point this out and s/he will make efforts to watch my words and interactions.
• [insert text here]
• [insert text here]

If the infractions continue, our team will [add plan as discussed by your team]
[insert text here]

Team Members: [decide who will upload the final version and add their name as #1]

All team members participated in formulating the standards, roles, and procedures as stated in this contract. All team members indicate that they have read the Readings in Topic A regardless of whether they attended the first RAT. We understand that we are obligated to abide by these terms and conditions.

1) signature ___________________________ date ____________
   Name: [type name here]

2) signature ___________________________ date ____________
   Name: [type name here]

3) signature ___________________________ date ____________
   Name: [type name here]

4) signature ___________________________ date ____________
   Name: [type name here]

5) signature ___________________________ date ____________
   Name: [type name here]

6) signature ___________________________ date ____________
   Name: [type name here]

______________________________

Department Approval

Electronically Approved - Dec 20 2019 15:21

Associate Dean's Approval for alternate final examination arrangements