**REASONING AND CRITICAL THINKING**

PHIL 1230B (Section 550) - Winter of 2019. Huron University College, at Western

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**Class Information:**

Instructor: Dr. Jonathan P. Marsh  
Email: jmarsh26@uwo.ca (preferred contact)  
Meetings: Thursday, 6:30 PM - 9:30 PM in HC-W12  
Office hour: Thursday at 5:30 PM  
Office: A18  
Course website: [https://owl.uwo.ca/portal](https://owl.uwo.ca/portal)

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**Description:**

We rely on reasoning to solve problems, make decisions and manage our opinions. This class aims to make you a better at it. To this end, we will adopt an exemplary model of learning. That is, we will look at people who are, intuitively, very good at reasoning and try to identify the cognitive principles and methods they employ, the intellectual attitudes they hold and the epistemic virtues they exemplify. We will then try to follow their lead with a series of exercises. Some obstacles to reasoning well will be flagged along the way.

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**Prerequisite(s):** none.  
**Antirequisite(s):** PHILosophy 1200

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**Outcomes:**

By the time we are finished, you will

1. be able to categorize, diagram and assess arguments from virtually any discipline,  
2. know how to overcome, or at least mitigate, common forms of human irrationality (e.g. biases, fallacies and inconsistencies) that stand in the way of good argumentation,  
3. have actively constructed your own rules of thumb to help you reason more effectively,  
4. know where to look for good sources of information, and how to distinguish these from bad sources,  
5. understand the basics of categorical and propositional logic,  
6. be in the habit of employing various techniques and principles for rationally updating your beliefs, and  
7. recognize that achieving even a mediocre level of “rationality” is a difficult, lifelong, social and fallible process, one that calls for constant effort, revisions and attention.

In short, you will be a more critical, a more effective and a more independent thinker. You will also better appreciate why these skills matter.

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**Texts:**


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**Requirements and Values:**

- Test on Unit 1 and Unit 2:1  
  20% (Date: 1/31)  
- Virtues and Rules Assignments  
  20% (Due dates: 2/14 and 3/14). Two assignment tabs with instructions will be created  
- Attendance and Participation  
  20% (includes a 5% workshop grade. Date: TBA). Please read the attendance policies on OWL.  
- Exam  
  40% (The final exam date will be announced and posted by the College.)

N.B. A successful participation grade encompasses more, though no less, than reliable class attendance. It also requires joining the conversation. Whether this occurs during ordinary lectures, workshops, or tutorials, where I may distribute questions unannounced, doing this well requires knowing and thoughtfully engaging the assigned readings. A review session will take place during our final meeting. The exam will exclude content from Unit 1 and Unit 2:1, provided this content is not revisited in another unit.

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**Grading Information and Explanation of Grades:**

Each assignment will be accompanied with clear instructions. Students will be evaluated in accordance with how well they follow them. For university-wide undergraduate grade descriptors, go here [http://www.westerncalendar.uwo.ca/2015/pg104.html](http://www.westerncalendar.uwo.ca/2015/pg104.html).

**Tentative Reading Schedule**
<table>
<thead>
<tr>
<th>Week</th>
<th>Unit/Topic</th>
<th>Reading</th>
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<tbody>
<tr>
<td></td>
<td><strong>Unit 1: THE NATURE AND IMPORTANCE OF CRITICAL THINKING</strong></td>
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<td></td>
<td><strong>Group numbers will be assigned</strong></td>
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<tr>
<td>Week 1</td>
<td>1.1. Course Introduction</td>
<td>No Readings</td>
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<td>Week 2</td>
<td>1.2. Learning from Socrates: the Elenchus Method</td>
<td>Herrick, Ch. 1-3, Readings from Contemporary Gadflies on OWL.</td>
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<td><strong>Unit 2: OBSTACLES TO CRITICAL THINKING</strong></td>
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<td>Week 3</td>
<td>2.1. Cognitive Biases</td>
<td>Herrick, Ch. 4, Ariely, Ch. 1-2, Kahneman (OWL)</td>
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<td>Week 4</td>
<td>2.2. Human Irrationality</td>
<td>Ariely, Chapters TBA</td>
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<td></td>
<td><strong>Test on Unit 1 and Unit 2:1 (1/31)</strong></td>
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<tr>
<td>Week 5</td>
<td>2.2. Relativism and Skepticism</td>
<td>Herrick, Ch. 5</td>
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<td><strong>Unit 3. BUILDING A SOLID KNOWLEDGE BASE</strong></td>
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<td>Week 6</td>
<td>3.1. Reason and the Senses</td>
<td>Herrick, Ch. 6 Roush (OWL)</td>
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<td>Week 7</td>
<td>3.2. Personal Experience, Testimony and Expert Authority</td>
<td>Herrick, Ch. 7</td>
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<td>Week 8</td>
<td>3.3. Fallacies to Watch out For</td>
<td>Herrick, Ch. 8</td>
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<td>Week 9</td>
<td>3.4. Internet, News Media and Advertising</td>
<td>Herrick, Ch. 9, Ariely TBA</td>
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<td><strong>Unit 4: CRITERIA FOR CORRECT REASONING</strong></td>
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<tr>
<td>Week 10</td>
<td>4.1 Deductive and Inductive Reasoning</td>
<td>Herrick, Ch. 10</td>
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<td>Week 11</td>
<td>4.2. Deductive and Inductive Reasoning / Coherence vs. Foundations Theories of Belief Revision</td>
<td>Herrick, Ch. 12 Harman PDF (OWL)</td>
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<td>Week 12</td>
<td>4.3. Scientific Inference and Probability Theory</td>
<td>Herrick, Ch. 11 Longino (OWL)</td>
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<td><strong>Unit 5: MORAL REASONING, WORLD VIEWS &amp; THE EXAMINED LIFE</strong></td>
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<td>Week 13</td>
<td>5.1. Moral Reasoning</td>
<td>Herrick, Ch. 12 Review Session</td>
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<tr>
<td>Final exam</td>
<td>To take place during the examination period. Exact date TBA.</td>
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**Please note:** the above schedule is approximate, and may be revised during the semester.
Appendix to Course Outlines

Prerequisite and Antirequisite Information
Students are responsible for ensuring that they have successfully completed all course prerequisites and that they have not completed any course antirequisites. Unless you have either the requisites for this course or written special permission from your Dean to enrol in it without them, you may be removed from this course and it will be deleted from your record. If you enrol in this course despite having already taken an antirequisite you may be removed from this course and it will be deleted from your record. Removals for these reasons may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites or for having already taken the antirequisites.

Conduct of Students in Classes, Lectures, and Seminars
Membership in the community of Huron University College and the University of Western Ontario implies acceptance by every student of the principle of respect for the rights, responsibilities, dignity and well-being of others and a readiness to support an environment conducive to the intellectual and personal growth of all who study, work and live within it. Upon registration, students assume the responsibilities that such registration entails. The academic and social privileges granted to each student are conditional upon the fulfillment of these responsibilities.

In the classroom, students are expected to behave in a manner that supports the learning environment of others. Students can avoid any unnecessary disruption of the class by arriving in sufficient time to be seated and ready for the start of the class, by remaining silent while the professor is speaking or another student has the floor, and by taking care of personal needs prior to the start of class. If a student is late, or knows that he/she will have to leave class early, be courteous: sit in an aisle seat and enter and leave quietly.

Please see the Code of Student Conduct at: https://huronuc.on.ca/sites/default/files/pdfs/Code%20of%20Student%20Conduct.pdf

Technology
It is not appropriate to use technology (such as, but not limited to, laptops, cell phones) in the classroom for non-classroom activities. Such activity is disruptive and is distracting to other students and to the instructor, and can inhibit learning. Students are expected to respect the classroom environment and to refrain from inappropriate use of technology and other electronic devices in class.

Academic Accommodation for Medical/Non-Medical Grounds
Students who require special accommodation for tests and/or other course components must make the appropriate arrangements with the Student Development Centre (SDC). Further details concerning policies and procedures may be found at: http://www.sdc.uwo.ca/ssp/?requesting_acc

(a) Medical Grounds for assignments worth 10% or more of final grade: Go Directly to Academic Advising

University Senate policy, which can be found at http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf, requires that all student requests for accommodation on medical grounds for assignments worth 10% or more of the final grade be made directly to the academic advising office of the home faculty (for Huron students, the “home faculty” is Huron), with supporting documentation in the form (minimally) of the Senate-approved Student Medical Certificate found at: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform_15JUN.pdf.

The documentation is submitted in confidence and will not be shown to instructors. The advisors will contact the instructor when the medical documentation is received, and will outline the severity and duration of the medical challenge as expressed on the
Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation, and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation. The instructor will not normally deny accommodation where appropriate medical documentation is in place and where the duration it describes aligns with the due date(s) of assignment(s). Before denying a request for accommodation on medical grounds, the instructor will consult with the Dean. The instructor’s decision is appealable to the Dean.

(b) **Accommodation on Medical Grounds** for assignments worth less than 10% of final grade: Consult Instructor Directly

When seeking accommodation on medical grounds for assignments worth less than 10% of the final course grade, the student should contact the instructor directly. The student need only share broad outlines of the medical situation. The instructor may require the student to submit documentation to the academic advisors, in which case she or he will advise the student and inform the academic advisors to expect documentation. The instructor may not collect medical documentation. The advisors will contact the instructor when the medical documentation is received, and will outline the severity and duration of the medical challenge as expressed on the Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation, and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation. The instructor will not normally deny accommodation where appropriate medical documentation is in place and where the duration it describes aligns with the due date(s) of assignment(s). Before denying a request for accommodation on medical grounds, the instructor will consult with the Dean. The instructor’s decision is appealable to the Dean.

(c) **Non-medical Grounds: Consult Instructor Directly**

Where the grounds for seeking accommodation are not medical, the student should contact the instructor directly. Late penalties may apply at the discretion of the instructor. Apart from the exception noted below, academic advisors will not be involved in the process of accommodation for non-medical reasons.

Where a student seeks accommodation on non-medical grounds where confidentiality is a concern, the student should approach an academic advisor with any documentation available. The advisors will consult the instructor after the student’s request is received, and will outline the severity and duration of the challenge without breaching confidence. The student will be informed that the instructor has been notified that significant circumstances are affecting or have affected the student’s ability to complete work, and the student will be instructed to work as quickly as possible with the instructor on an agreement for accommodation. Before denying a request for accommodation where documentation has been submitted to an academic advisor, the instructor will consult with the Dean. The instructor’s decision is appealable to the Dean.

**Statement on Academic Offences**

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: [http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

**Statement on Academic Integrity**

The International Centre for Academic Integrity defines academic integrity as "a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. From these values flow principles of behaviour that enable academic communities to translate ideals to action." (CAI Fundamental Values Project, 1999).

A lack of academic integrity is indicated by such behaviours as the following:

- Cheating on tests;
- Fraudulent submissions online;
- Plagiarism in papers submitted (including failure to cite and piecing together unattributed sources);
- Unauthorized resubmission of course work to a different course;
- Helping someone else cheat;
- Unauthorized collaboration;
- Fabrication of results or sources;
- Purchasing work and representing it as one’s own.
Academic Integrity: Importance and Impact

Being at university means engaging with a variety of communities in the pursuit and sharing of knowledge and understanding in ways that are clear, respectful, efficient, and productive. University communities have established norms of academic integrity to ensure responsible, honest, and ethical behavior in the academic work of the university, which is best done when sources of ideas are properly and fully acknowledged and when responsibility for ideas is fully and accurately represented.

In the academic sphere, unacknowledged use of another’s work or ideas is not only an offence against the community of scholars and an obstacle to academic productivity. It may also be understood as fraud and may constitute an infringement of legal copyright.

A university is a place for fulfilling one’s potential and challenging oneself, and this means rising to challenges rather than finding ways around them. The achievements in an individual’s university studies can only be fairly evaluated quantitatively through true and honest representation of the actual learning done by the student. Equity in assessment for all students is ensured through fair representation of the efforts by each.

Acting with integrity at university constitutes a good set of practices for maintaining integrity in later life. Offences against academic integrity are therefore taken very seriously as part of the university’s work in preparing students to serve, lead, and innovate in the world at large.

A university degree is a significant investment of an individual’s, and the public’s, time, energies, and resources in the future, and habits of academic integrity protect that investment by preserving the university’s reputation and ensuring public confidence in higher education.

**Students found guilty of plagiarism will suffer consequences ranging from a grade reduction to failure in the course to expulsion from the university. In addition, a formal letter documenting the offence will be filed in the Dean’s Office, and this record of the offence will be retained in the Dean’s Office for the duration of the student’s academic career at Huron University College.**

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. 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 The University of Western Ontario and Turnitin.com.

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Personal Response Systems (“clickers”) may be used in some classes. If clickers are to be used in a class, it is the responsibility of the student to ensure that the device is activated and functional. Students must see their instructor if they have any concerns about whether the clicker is malfunctioning. Students must use only their own clicker. If clicker records are used to compute a portion of the course grade:

- the use of somebody else’s clicker in class constitutes a scholastic offence,
- the possession of a clicker belonging to another student will be interpreted as an attempt to commit a scholastic offence.

**Policy on Special Needs**

Students who require special accommodation for tests and/or other course components must make the appropriate arrangements with the Student Development Centre (SDC). Further details concerning policies and procedures may be found at: [http://www.sdc.uwo.ca/ssl/?requesting_acc](http://www.sdc.uwo.ca/ssl/?requesting_acc)

**Attendance Regulations for Examinations**

A student is entitled to be examined in courses in which registration is maintained, subject to the following limitations:

1) A student may be debarred from writing the final examination for failure to maintain satisfactory academic standing throughout the year.
2) Any student who, in the opinion of the instructor, is absent too frequently from class or laboratory periods in any course will be reported to the Dean of the Faculty offering the course (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean of that Faculty, the student will be debarred from taking the regular examination in the course. The Dean of the Faculty offering the course will communicate that decision to the Dean of the Faculty of registration.

**Class Cancellations**

In the event of a cancellation of class, every effort will be made to post that information on the Huron website, [https://huronuc.on.ca/about/accessibility](https://huronuc.on.ca/about/accessibility) (“Cancellations and Closures”).

**Mental Health @ Western**

Students who are in emotional/mental distress should refer to Mental Health @ Western [http://www.uwo.ca/uwocom/mentalhealth/](http://www.uwo.ca/uwocom/mentalhealth/) for a complete list of options about how to obtain help.

**Academic Advising**

For advice on course selections, degree requirements, and for assistance with requests for medical accommodation [see above], students should contact an Academic Advisor in Huron’s Student Support Services (huronsss@uwo.ca). An outline of the range of services offered is found on the Huron website at: [https://huronuc.ca/student-life-campus/student-services/academic-advising](https://huronuc.ca/student-life-campus/student-services/academic-advising)

Department Chairs and Program Directors and Coordinators are also able to answer questions about their individual programs. Their contact information can be found on the Huron website at: [https://huronuc.ca/student-life-campus/art-social-science](https://huronuc.ca/student-life-campus/art-social-science)