OTTAWA ONLINE
PHI-21723 Introduction to Logic

Course Description
Examines nature and structure of reason as it bears upon communication, inquiry and argument. Emphasis on normative and critical functions of reason, basic rules of clear thinking and speech, and evaluation of arguments

This is a fully online, eight-week course. We will not meet face-to-face at any time.

Course Prerequisites
None

Course Objectives
Upon successful completion of this course, students will be able to:
• Identify arguments, premises and conclusions
• Distinguish between inductive reasoning and deductive reasoning
• Examine statements for validity, truth, sound judgment, and coherence
• Distinguish valid argument forms from invalid arguments
• Define language in general
• Distinguish between cognitive and emotive language
• Create valid definitions
• Define fallacies
• Distinguish between formal and informal fallacies
• Identify fallacies of relevance, of weak induction, of presumption, ambiguity and analogy
• Translate ordinary language statements into categorical form
• Identify the components of Categorical propositions
• Create Venn Diagrams using logical proposition
• Define syllogism
• Identify the major, minor and middle terms of the syllogism
• Create Venn Diagrams to illustrate syllogisms
• Define standard form, mood and figure in standard syllogisms
• Define symbol and translation
• Identify simple and compound propositions
• Create Truth tables
• Identify argument forms and fallacies
• Define analogical reasoning
• Identify legal and moral reasoning
• Define the hypothetical method
• Demonstrate hypothetical reasoning in specific examples
**Required Text**

**Course Assignment Descriptions and Schedule At-A-Glance**

You will have several opportunities to demonstrate your knowledge and understanding of the principles taught in this course. The primary means of evaluating your work will be through practical application of the material. In the event that you have difficulty completing any of the assignments for this course, please contact your instructor immediately. Please refer to the Weekly Materials section of the cyberclassroom for complete details regarding the activities and assignments for this course. The following is merely a summary.

**Discussion contributions (160 points)**

**Initial Substantive Posts:** Submit an initial response to each of the prompts provided each week by your instructor. Your initial post should be substantive (approximately ½ of a page in length) and must be posted by midnight, Central Time by Wednesday of each week. In your substantive post you are encouraged to use references (you may use your textbook); show evidence of critical thinking as it applies to the concepts or prompt and/or use examples of the application of the concepts to work and life. Proper punctuation, grammar and correct spelling are expected. Please use the spell-check function.

**Required Replies:** You must reply to at least two different peers per prompt. Your replies should build on the concept discussed, offer a question to consider, or add a differing perspective, etc. Rather than responding with, "Good post," explain why the post is "good" (why it is important, useful, insightful, etc.). Or, if you disagree, respectfully share your alternative perspective. Just saying "I agree" or "Good idea" is not sufficient for the posts you would like graded.

**Posting Guidelines:** Overall, postings must be submitted on at least two separate days of the week. It is strongly recommended you visit the discussion forum throughout the week to read and respond to your peers’ postings. You are encouraged to post more than the required number of replies.

(Please review the Policies section of Blackboard for further details.)

<table>
<thead>
<tr>
<th>Week 1</th>
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<tr>
<td><strong>Readings</strong></td>
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</table>
| **Discussion** | • Initial post to each prompt due by midnight, CT on Wednesday  
• At least two replies to peers for each prompt due by midnight, CT on Sunday |
| **Assignment(s)** | **What is an Argument?**  
In essay format, with a title page, complete the following:  
Part 1:  
Define the following terms in 1-2 sentences per term. Please write the definition in your own words- do not copy and paste definitions from dictionaries or websites. Additionally, after your definition, create an original example of an argument that illustrates each term. Explain how and why your example applies to term.  
• Valid argument |
• Invalid argument
• strong argument
• weak argument
• Sound argument
• Unsound argument
• cogent argument
• uncogent argument

Part 2:
Find an example of a current argument. It can be from an editorial in a local newspaper or from a book, magazine or web article. Copy the argument as written, citing the appropriate source using APA rules for in-text citations. Explain the argument; identify the premises and the conclusion. Determine if the argument is valid or not by examining the link between the premises and the conclusion and evaluating the truth of the premises. This analysis should be 1-2 pages in length with scholarly support for your opinions, cite at least 1-2 references supporting your viewpoints.

Due: Sunday at Midnight, CT
Points Possible: 50
Turn to the editorial pages of a newspaper or find an online blog on a current topic or use the letters column in a magazine. Find an instance of a fallacious argument in the writing and write an analysis at least one page in length identifying the fallacy or fallacies committed and the reasons the writer may have had to commit the fallacy or fallacies. In other words, what was the author thinking? What made the thinking incorrect? Include a brief summary of the article and a link (if available). Provide an in depth rationale and support with 1-2 scholarly references that support your opinion. Include a title page and reference page in APA format. Submit your assignment using the assignments tab located in the course menu.

**Due: Sunday, midnight CT**

**Points Possible: 50**

### Week 4

<table>
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<tr>
<th>Readings</th>
<th>• Chapter Four- Categorical Propositions</th>
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</table>
| Discussion     | • Initial post to each prompt due by midnight, CT on Wednesday  
                  • At least two replies to peers for each prompt due by midnight, CT on Sunday |
| Assignment(s)  | **Standard Form Categorical Propositions** |
|                | Translate the following statements into a standard form categorical proposition. In a word document, create a standard form categorical proposition for each of the following statements, and include a short explanation of what you did to create this for each one.  
                  1. Not everything you hear is worthy of your trust.  
                  2. Neither a borrower nor a lender be.  
                  3. All that glitters is not gold.  
                  4. Rudolph the red nosed reindeer was Santa's main navigation tool.  
                  5. All men remain boys at heart.  
                Include a title page and reference page in APA format.  
                Submit your assignment using the assignments tab located in the course menu.  
                **Due: Sunday, midnight CT**  
                **Points Possible: 25** |

### Week 5

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<tr>
<th>Readings</th>
<th>• Chapter Five- Categorical Syllogisms</th>
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</table>
| Discussion     | • Initial post to each prompt due by midnight, CT on Wednesday  
                  • At least two replies to peers for each prompt due by midnight, CT on Sunday |
| Assignment(s)  | **Syllogisms**  
                **Please download the assignment template from the course materials:** Complete both parts of the assignment- for Part A, match the syllogism with the corresponding Venn diagram. For Part B, Create 5 original syllogisms and draw a Venn Diagram for each. Please make sure the examples you provide are original and not taken from outside sources.  
                **Due: Sunday at Midnight, CT**  
                **Points Possible: 25** |

### Week 6

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<tr>
<th>Readings</th>
<th>• Chapter Six- Propositional Logic</th>
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</table>
| Discussion     | • Initial post to each prompt due by midnight, CT on Wednesday  
                  • At least two replies to peers for each prompt due by midnight, CT on Sunday |
| Assignment(s)  | **Logical Formulas**  
                You are the human resources director of a new company and your boss has asked you to compile a report on company employees. You search employee databases to determine whether certain assumed facts about your employees are true. You |
need to determine if all employees are your firm (name it whatever you wish) meet certain standards. Create a logical formula that will let you test each of the following statements. Whenever possible combine the statements into compound propositions when dealing with similar elements. (children, education, salary)

Explain each of your formulas in a sentence.

- All employees of my company have some college credits
- No employees are high school dropouts
- Everyone who works at my company (use your company name) is in either sales or service
- No one without a college degree is in sales
- All employees with children are married
- All single employees have no children
- At least half of the employees make over 10,000 per year
- If an employee has a college degree he or she earns over 20,000.00
- Everyone works less than five miles from the office except the vice-president
- Some married employees have no children

Due: Sunday at Midnight, CT
Points Possible: 25

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**Week 7**

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<tr>
<th>Readings</th>
<th>• Chapter Nine- Analogy and Legal and Moral Reasoning</th>
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</thead>
</table>
| Discussion | • Initial post to each prompt due by midnight, CT on Wednesday  
             • At least two replies to peers for each prompt due by midnight, CT on Sunday |
| Assignment(s) | Lawyers Brief  
Prepared a 500-750 word lawyer's brief using the 4th Amendment's prohibition of unreasonable searches to defend or prosecute "Harry Smith". Harry Smith was overheard by his fellow classmates while on his cell phone, explaining to some friends where he had hidden some marijuana plants in a property he owns. Your task is to prepare an argument either supporting Harry's position that the police violated his reasonable expectation of privacy when they tapped his phone with no warrant and found the location of the plants, or an argument supporting the police action in this instance. **Incorporate the six principles for evaluating arguments from analogy to your brief as a basis for your position.**  
The following principles are used to evaluate an argument from analogy:  
1. Relevance of the similarities  
2. Number of similarities  
3. Nature and degree of dissimilarities  
4. Number of primary analogies  
5. Diversity among the primary analogues  
6. Specificity of the conclusion  

Use the cases below to determine precedence:  


Due: Sunday at Midnight, CT
Points Possible: 50

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**Week 8**

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<tr>
<th>Readings</th>
<th>• Chapter Thirteen- Hypothetical/Scientific Reasoning</th>
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</table>
| Discussion | • Initial post to each prompt due by midnight, CT on Wednesday  
             • At least two replies to peers for each prompt due by midnight, CT on **Saturday** |
| Assignment(s) | Hypotheses |

Due: Sunday at Midnight, CT
Points Possible: 50
Prepare a 750-1000 word essay on one of the following scientific events. Discuss the problem, and one or more of the hypotheses that were given. Include the implications made and the tests used. Evaluate the hypothesis in terms of adequacy, internal coherence, external consistency and fruitfulness.

Choose one:
1. Darwin's theory of natural selection
2. Pasteur's theory of vaccination
3. Watson and Crick's structure of the DNA molecule
4. Bohr's structure of the atom
5. Fleming's discovery of penicillin

Make sure to cite cases and/or references in text and in the references section. Include a title page, introduction, and conclusion that supports your argument in APA format. Submit your assignment using the assignments tab located in the course menu.

Due: Saturday at Midnight, CT
Points Possible: 50

* All online weeks run from Monday to Sunday, except the last week, which ends on Saturday.
** All assignments are due at midnight Central Time. (All submissions to the Blackboard system are date/time stamped in Central Time).

**Assignments At-A-Glance**

<table>
<thead>
<tr>
<th>Assignment/Activity</th>
<th>Qty.</th>
<th>Points</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeks 1-8: Discussion*</td>
<td>-</td>
<td>20 per week</td>
<td>160</td>
</tr>
<tr>
<td>Week 1: What is an Argument</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Week 2: Lexical Definitions</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Week 3: Fallacious Arguments</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Week 4: Standard Form Categorical Propositions</td>
<td>1</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Week 5: Syllogisms</td>
<td>1</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Week 6: Logical Formulas</td>
<td>1</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Week 7: Lawyers Brief</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Week 8: Hypotheses</td>
<td>1</td>
<td>50</td>
<td>50</td>
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<tr>
<td><strong>TOTAL POINTS</strong></td>
<td></td>
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<td><strong>485</strong></td>
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*Please refer to the Policies menu for more information about requirements for Discussions.

**Grading Scale**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Points</th>
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<tbody>
<tr>
<td>A</td>
<td>90 to 100%</td>
<td>436-485</td>
</tr>
<tr>
<td>B</td>
<td>80 to 89%</td>
<td>386-435</td>
</tr>
<tr>
<td>C</td>
<td>70 to 79%</td>
<td>336-385</td>
</tr>
<tr>
<td>D</td>
<td>60 to 69%</td>
<td>286-335</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60%</td>
<td>&lt; 285</td>
</tr>
</tbody>
</table>

To access your scores, click on Grades in the Student Tools area in Blackboard.

**Important Policies**

All course-specific policies for this course are spelled out here in this syllabus. However, additional university policies are located in the Policies section of Blackboard. You are responsible for reading and understanding all of these policies. All of them are important. Failure to understand or abide by them could have negative consequences for your experience in this course.
Editorial Format for Written Papers
All written assignments are to follow the APA writing style guidelines for grammar, spelling, and punctuation. This online course includes information regarding the APA style under “Writing and Research Resources” in the Resource Room on the course menu in Blackboard.

Ottawa Online Late Policy
With instructor approval, assignments may be accepted for up to one week after the due date, but a minimum automatic deduction of 10% of the points will be assessed. The instructor also has the option of increasing this deduction percentage up to a maximum of 20%. Extenuating circumstances may be determined on rare occasions and an extension allowed without a deduction, but only at the sole discretion of the instructor.

Discussion board postings will not be accepted for credit when posted after the close of the discussion week. There are no exceptions to this rule; however, solely at the discretion of the instructor, the student may be allowed to submit an alternative assignment to make up for the points under extenuating circumstances. If granted, this should be an exception to the rule.

No assignments will be accepted after the last day of the course (end of term) unless arrangements have been made and “approved” by the instructor at least one week in advance.

Saving Work
It is recommended that you save all of your work from this course on your own computer or flash drive. The capstone course you take at the end of your program may require you to have access to this work for culminating assignments and/or reflections.

Academic Integrity
Plagiarism and cheating will not be tolerated at any level on any assignment. The reality of cyberspace has made academic dishonesty even more tempting for some, but be advised that technology can and will be used to help uncover those engaging in deception. If you ever have a question about the legitimacy of a source or a procedure you are considering using, ask your instructor. As the University Academic Council approved on May 29, 2003, “The penalty for plagiarism or any other form of academic dishonesty will be failure in the course in which the academic dishonesty occurred. Students who commit academic dishonesty can be dismissed from the university by the provost/director.”
Please refer to Academic Honesty in the Policies section of the online course menu for important information about Ottawa University’s policies regarding plagiarism and cheating, including examples and explanations of these issues.

Student Handbook
Please refer to your student handbook for all university regulations. The Resource Room on the course menu in Blackboard contains information about where to find the student handbook online for your campus.

Please see Policies in Blackboard for additional university policies.
Blackboard Technical Support

The Resource Room in Blackboard contains links to student tutorials for learning to use Blackboard as well as information about whom to contact for technical support. Ottawa University offers technical support from 8 a.m. to midnight Central Time for all students, staff, and faculty at no cost. See www.ottawa.edu/ouhelp for contact information.