



**Division of Philosophy, Humanities and Library Sciences  
Philosophy Department**

<https://www.hccs.edu/programs/areas-of-study/liberal-arts-humanities--education/philosophy/>

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**Phil 2303: Introduction to Formal Logic | Lecture | #18758**

Fall 2019 | 16 Weeks

Distance Learning |

3 Credit Hours | 48 hours per semester

**Instructor Contact Information**

Instructor: Lamont Rodgers

Office Phone: 713-718-5598

Office: Stafford Learning Hub 305

Office Hours: by appointment

HCC Email: lamont.rodgers@hccs.edu

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear the concerns and just to discuss course topics.

**Instructor's Preferred Method of Contact**

Lamont.rodgers@hccs.edu

**Prerequisites and/or Co-Requisites**

ENGL 1301

**Canvas Learning Management System**

This section of PHIL 2303 will use [Canvas](https://eagleonline.hccs.edu) (<https://eagleonline.hccs.edu>) to supplement in-class assignments, exams, and activities.

HCCS Open Lab locations may be used to access the Internet and Canvas. **USE [FIREFOX](#) OR [CHROME](#) AS THE INTERNET BROWSER.**

**HCC Online Information and Policies**

Here is the link to information about HCC Online classes including the required Online Orientation for all fully online classes: <http://www.hccs.edu/online/>

**Scoring Rubrics, Sample Assignments, etc.**

Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. <https://eagleonline.hccs.edu/login/ldap>

Instructional Materials

### **Textbook Information**

The textbook is free and available on my learning web page:  
<http://learning.hccs.edu/faculty/lamont.rodgers/phil2303/textbook-in-progress/view>

### **Other Instructional Resources**

See my learning web and Canvas for companion videos.

#### **Tutoring**

HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the [HCC Tutoring Services](#) website for services provided.

#### **Libraries**

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at <http://library.hccs.edu>.

#### **Supplementary Instruction**

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at <http://www.hccs.edu/resources-for/current-students/supplemental-instruction/>.

## Course Overview

The purpose of this course is to introduce the student to symbolic logic, including syllogisms, propositional and predicate logic, and logical proofs in a system of rules (Texas ACGM). It emphasizes the rules of translating language into symbols as well as the semantic and syntactic implications of the system of first-order logic, a method of reasoning ingredient to philosophy, mathematics, and computer programming (HCC Catalogue). This course stresses the HCC Core Objectives of Critical Thinking, Communication Skills, Empirical and Quantitative Literacy, and Teamwork.

### Core Curriculum Objectives (CCOs)

This course satisfies the Component Area Option, or the Math Foundational Component Area Option in the HCC Core Curriculum. If you are not sure that you need this course to graduate, please consult with your advisor.

### Program Student Learning Outcomes (PSLOs)

1. Determine the logical structure of English arguments by identifying premises and conclusions.
2. Understand basic concepts in logic, such as truth functionality, validity, soundness, counter-examples, tautology, self-contradiction, logical equivalence, logical contradictoriness, and logic consistency.
3. Translate English statements into propositional and/or predicate notation.
4. Determine the validity of symbolic propositional or predicate arguments using such methods as direct/indirect truth tables, natural deduction, and/or the finite universe method.

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### Learning Objectives

- 1.1 Understand the nature of logical structure in English-language arguments, including the concepts of premises, conclusions, validity, soundness, inference, strength, and cogency.
- 1.2 Identify premises and conclusions in English-language arguments and assess them for validity, soundness, strength, and cogency.
- 2.1 Learn basic logical vocabulary, including types of arguments, relations between sentences, and logical operators.
- 2.2 Assess validity, soundness, strength, cogency, logical equivalence, and logical consistency of English-language sentences.
- 2.3 Identify English-language sentences as tautology, contradiction, or contingent sentence.
- 3.1 Learn symbolic notation for each of the logical operators, including the truth table for each operator.

3.2 Translate English-language sentences and arguments into symbolic form using a translation key.

4.1 Learn the truth-table test for validity, including partial truth tables.

4.2 Apply the truth table method to assessing validity (finding counterexamples), identifying tautologies, contradictions, and contingent sentences, assessing logical equivalence and consistency.

4.3 Learn the basic rules of natural deduction, including rules of replacement.

4.4 Learn indirect methods of proof.

4.5 Derive derived rules of natural deduction.

4.6 Apply the rules of natural deduction to derive desired conclusions from given premises.

## **Student Success**

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

## **Instructor and Student Responsibilities**

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

As a student, it is your responsibility to:

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Be aware of and comply with academic honesty policies in the HCCS Student Handbook

## **Assignments, Exams, and Activities**

### **Written Assignment**

**Discussion forum participation is worth 10 points. Students must post their answer to one question from a homework set assigned by the instructor. The solution the student poses must be the first solution to the problem in question. Students must do just one problem per module. Each forum is worth 2.5 points.**

**EGLS Survey 10 points**

### **Exams**

**4 Section exams worth 20 points each.**

**16 Gateway quizzes worth 5 points each. You may take these as many times as you like. Your highest score counts. Once the deadline for a particular section passes, you may no longer take the quizzes.**

### **Grading Formula**

A	90-100% or 162 points and up
B	80-89.9 or 144 points and up
C	70-79.9 or 126 points and up
D	60-69.9 or 108 points and up
F	59.9 or below, or less than 108 points

**HCC Grading Scale can be found on this site under Academic Information:**  
**<http://www.hccs.edu/resources-for/current-students/student-handbook/>**

## Course Calendar

**Module 1:** (Aug 27 to Sept. 15) Gateway quizzes 1 through 4 and Exam 1 are due by the end of the day on September 15<sup>th</sup>. Discussion forum 1 is also due. Do not wait until the last minute to do the assignments. No late work is accepted. This work focuses on chapter 1.

**Module 2:** (September 16<sup>th</sup> to October 6<sup>th</sup>) Gateway quizzes 5 through 7 and Exam 2 are due by the end of the day on October 13<sup>th</sup>. Discussion forum 2 is also due. This work focuses on chapter 2.

**Module 3:** (October 6<sup>th</sup> to November 3<sup>rd</sup>) Gateway quizzes 8 through 11 and Exam 3 are due by the end of the day on November 3<sup>rd</sup>. Discussion forum 3 is also due. This work focuses on chapter 3.

**Module 4:** (November 4<sup>th</sup> to 8<sup>th</sup>) Gateway quizzes 12 through 16 and Exam 4 are due by the end of the day on December 8<sup>th</sup>. Discussion forum 4 is also due. This work focuses on chapter 4.

### Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

## Instructor's Practices and Procedures

### Missed Assignments

There will be no make-up work in this course. This is a distance learning course. No late assignments will be accepted. Technical issues are never – *never* – an excuse for missing an assignment.

### Academic Integrity.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

<http://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/>

### Attendance Procedures

**Students who miss deadlines will not have an opportunity to make up missed work unless a medical professional provides a note saying that the student was unable to do the work during the entire time period for which each missed assignment was available. One or two day excuses are insufficient.**

### Student Conduct

**Be courteous and professional during all interactions with the professor and other students.**

## Electronic Devices

**Not applicable.**

## PHILOSOPHY Program Information

Please refer to our Philosophy program page for information on student groups and organizations.

<https://learning.hccs.edu/programs/philosophy>

You can also follow our philosophy club Facebook site:

<https://www.facebook.com/HCC-Philosophy-Club-88672027009/>

## HCC Policies

Here's the link to the HCC Student Handbook <http://www.hccs.edu/resources-for/current-students/student-handbook/> In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disAbility Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

## EGLS<sup>3</sup>

The EGLS<sup>3</sup> (Evaluation for Greater Learning Student Survey System) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS<sup>3</sup> surveys are only available for the Fall and Spring semesters. -EGLS<sup>3</sup> surveys are not offered during the Summer semester due to logistical constraints.

<http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/>

## Campus Carry Link

Here's the link to the HCC information about Campus Carry:

<http://www.hccs.edu/departments/police/campus-carry/>

### **HCC Email Policy**

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go [to HCC Eagle ID](#) and activate it now. You may also use Canvas Inbox to communicate.

### **Housing and Food Assistance for Students**

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

## **Office of Institutional Equity**

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (<http://www.hccs.edu/departments/institutional-equity/>)

### **disAbility Services**

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to <http://www.hccs.edu/support-services/disability-services/>

### **Title IX**

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross  
Director EEO/Compliance  
Office of Institutional Equity & Diversity  
3100 Main  
(713) 718-8271  
Houston, TX 77266-7517 or [Institutional.Equity@hccs.edu](mailto:Institutional.Equity@hccs.edu)



<http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/>

### **Office of the Dean of Students**

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

<https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/>

### **Department Chair Contact Information**

Helen Graham, Ed.D.  
713-718-7258  
Codwell Hall room, 125  
555 Community College Dr.  
Houston, TX 77013

<http://learning.hccs.edu/faculty/helen.graham>