



SCHOLÉ ACADEMY
CLASSICAL ACADEMIC PRESS

The Discovery of Deduction: An Introduction to Informal Logic Yearlong 2016-2017



Class Dates: Monday and Wednesday, **September 7, 2016 - May 17, 2017**

Class Time: 12:00 p.m.—1:15 p.m. (EST)

Grade Level: Grades 9-12

Instructor: Joelle Hodge

E-mail: logicinstruction@gmail.com

REGISTRATION:

To register for Discovery of Deduction or other Scholé Academy courses, visit <http://www.ScholéAcademy.com>.

SCHEDULE

CLASS SESSIONS: Classes will take place from **12:00 p.m.-1:15 p.m. (EST)** for **32 weeks and 63 classes on the following dates***

September (7): 7, 12[!], 14, 19, 21, 26, 28

October (9): 3, 5, 10, 12, 17, 19, 24, 26, 31

November (7): 2, 7, 9, 14, 16, 28, 30

December (4): 5, 7, 12, 14

January (7): 9, 11, 16, 18, 23, 25, 30

February (8): 1, 6, 8, 13, 15, 20, 22, 27

March (9): 1, 6, 8, 13, 15, 20, 22, 27, 29

April (6): 3, 5, 17, 19, 24, 26

May (6): 1, 3, 8, 10, 15, 17

*Please note the above dates and times are the anticipated class sessions for this course. However, all dates are subject to change as the instructor's circumstances might dictate. Any classes canceled by the instructor will be made up at an alternate time designated by the instructor.

[!]The September 12th class date will be canceled and rescheduled at a time TBD.

OFFICE HOURS:

In addition to scheduled class times, teachers will offer an optional weekly session as needed. During "Office Hours" students may raise questions, seek assistance, or review class material.

COURSE MAP:

SEMESTER 1

1. Introduction to Formal Logic
2. A Brief History of Logic
3. Formal Logic and the Three Acts of the Mind
4. Propositions and Their Relationship
5. Translating Propositions into Categorical Form
6. Relationships of Opposition
7. Relationships of Equivalences
8. Student Evaluations

SEMESTER 2

1. Categorical Syllogisms
2. The Syllogism Introduced
3. Determining the Validity of Syllogisms
4. Student Evaluations
5. Terms and Definitions
6. Definitions and Disagreements (students should begin reading *The Evolution of Calpurnia Tate*).
7. Logical Analysis of *The Evolution of Calpurnia Tate*
8. Final Project/Essay

COURSE DESCRIPTION:

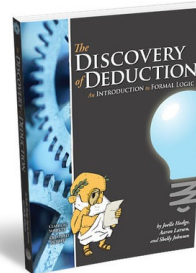
The Discovery of Deduction course is designed for junior high and high school students who want to study the art of correct reasoning residing in the principles of formal, or deductive logic. This course on formal logic will take students through a study of the syllogism, which embodies deductive reasoning taking the form of a major premise, minor premise, and conclusion. Students will also study the traditional “square of opposition,” a teaching tool that shows various logical relations contained in various kinds of deductive arguments. Students will study with *The Discovery of Deduction*, a text which is not only clear and incremental, but shows students how deductive logic is applied in various disciplines and in everyday life (from the adventures of Sherlock Holmes to scientific and ethical arguments).

At the end of the second semester students will be reading *The Evolution of Calpurnia Tate*, a novel by Jacqueline Kelly. They will be evaluating the arguments made in the novel, specifically analyzing the text for its informally fallacies, syllogistic arguments, and definitions. As a final project, students will be writing an essay explaining their analysis.

This is an ideal course for students wanting to know how reason works and who will enjoy thinking about thinking! Logic will be esteemed by students as they grow to see how logic is needed and used in every discipline and subject of study.

REQUIRED COURSE TEXTS:

1. The primary course text is *The Discovery of Deduction: An Introduction to Formal Logic* and is available from Classical Academic Press.
2. Students will also be required to purchase *The Evolution of Calpurnia Tate*, by Jacqueline Kelly.



OPTIONAL COURSE TEXTS:

1. Additionally, some course content will utilize the text, *Socratic Logic* by Peter Kreeft, Ph.D.
2. Papers and essays will be submitted using basic MLA formatting guides. The *MLA Handbook for Writers of Research Papers* — 7th Edition may be a helpful resource.

STUDENT EXPECTATIONS:

Ideally students who pursue *Discovery of Deduction* will have demonstrated an ability to reason in the abstract. **This is a rigorous subject, with challenging concepts, moving at a rapid pace.** The course focuses less on the content of an argument, and instead places more critical attention on the construction of an argument. In any type of argument there are two areas which much both align to create a sound argument: the argument's content must have a true truth value; and equally importantly, the structure of the argument must be valid. Content and whether or not the argument is "true" is not the primary focus of analysis during this course. *Discovery of Deduction* will focus primarily on analyzing the form/construction of deductive arguments.

Students will need to be able to separate concepts of truth from those of validity. In other words, an argument may be determined to be valid, yet entirely untrue — meaning the argument has been constructed without a fallacy, while the content and its truth value may be false.

These are important distinctions a student will need to be prepared to engage with, and if he or she is not prepared to embark on this type of abstract reasoning, the challenge may be great.

Logic is a foundational building block in Classical Education - one of the primary cornerstones of ultimately developing excellence in Rhetoric. As part of that larger picture, then, the ultimate goal for the student will be to apply the foundational elements of logical thinking and structural construction of logical argumentation to assignments throughout their academic careers and in self expression and argumentation in general. Therefore some student work and assessments in this course will be completed in the text, using online tools and assignments, through classroom participation and discussion, and through written essays.

STUDENT EXPECTATIONS: PREREQUISITES

The prerequisite requirements for this course are intended to help you determine if the student is developmentally prepared to engage with the more abstract concepts and thinking methods encountered in formal logic. Students wishing to enroll in the *Discovery of Deduction* course are encouraged to be prepared to reason in the abstract, and learn to practice (demonstrate) the new thinking processes presented in the course.

To help students and parents determine a student's preparedness for some of these nebulous areas, students are required to have completed the courses listed in the following paragraph. It's important to understand that work completed in the prescribed courses

will not be included in the Discovery of Deduction class; rather, the successful completion of these courses does provide an indicator of whether or not a student is prepared to think dialectically (an abstract notion in and of itself).

Students should have completed a course in informal logic (the informal fallacies) such as *The Art of Argument* course provided by Scholé Academy. Students should have also successfully completed PreAlgebra.

Additionally, because this Discovery of Deduction course will require several written essays (including the final project), students should have some experience in essay writing, basic style and formatting requirements (MLA style preferred), and understanding how to avoid plagiarism.

STUDENT EXPECTATIONS: EXECUTIVE FUNCTION SKILLS

Students enrolling in Scholé Academy's Logic Program will be expected to show development of Executive Function Skills throughout the year. Executive Function Skills speaks to a set of qualities and skill sets students can develop and hone to better approach the courses, lectures, readings and teachers they will face in their future academic coursework.

Each teacher will invariably have his own set of requirements and skills he requires students to bring to their studies. *Generally* speaking, I believe there are five such qualities that are necessary for my students in various subjects; and I believe they would be accepted as "good" by many other teachers as well.

1. An Engaged Student: One who is willing to step into the arena of class discussion, ask questions, supply answers, generate the internal dialogue necessary to determine if what's being discussed is important and necessary to himself.

2. Note Taking: A student who during and after being engaged with the class has been trained to note important and relevant content in an organized fashion (Cornell Notes would be a great option). His notes would then be consulted, independently, for application in assignments and assessments.

3. Attention to Detail & Preparedness: These students are ones who consistently adhere to deadlines, submission requirements, adhering to style guides and codes, confirm technology is working prior to the start of class, be responsible to determine how to proceed after an absence, be responsible for consulting his course syllabus and adjusting as the class proceeds, etc.

4. Employ Critiques: These students are ones who receive feedback to one of their submissions, and then are sure to apply that feedback to future assignments rather than repeating mistakes. These students also glean information from the live class critiques of fellow students and note mistakes to avoid by learning from others.

5. Initiative/Maturity: This student would hear the teacher comments and be able to assess whether or not the teacher was describing his work, and then take the initiative to schedule office hours with his teacher if necessary.

During online discussions, students will review answers, pose questions, explain and justify their answers and solution. Each week the teacher will lead discussions informed by issues and problems raised by students, as well as issues introduced by the teacher.

In this class, students will be expected to listen attentively, participate actively in class discussions and practices. Students are expected to arrive to class on time and with all assigned material completed. The instructor will facilitate learning for the student, but the responsibility for staying up-to-date with classwork and assignments ultimately falls to the student.

All assignments will be due in Mrs. Hodge's email inbox prior to the start of class each day. Students turning in late work will earn a 5% penalty for each day the assignment is late. Students may submit type-written work via an email attachment or via an online document provider (like Google Docs), or they may hand write, scan and attach their work to an email. Photographs of completed assignments will not be accepted as they are incredibly difficult to read.

STUDENT EVALUATION: MASTERY PORTRAIT

While pursuing the *Discovery of Deduction* through Scholé Academy will be "restful" (it will also be quite rigorous in many places) we also recognize the need to provide grades for students who will be using this course as part of their prepared college transcript. It's a delicate balance to achieve both restful learning and excellent academic performance. Earning a specific grade should not overshadow achievement goals for mastery of this discipline.

Logic, like the studies of Grammar and Rhetoric, is a "core" discipline in Classical Education and learning to own the concepts introduced in this class will be a necessary and significant component of future success in upper-level Classical Education. In that sense then, attaining a mastery of Logic is its own reward and as the teacher I can assign the following grades to your student's level of achievement: *magna cum laude* (with great praise); *cum laude* (with praise); *satis* (sufficient, satisfactory) and *non satis* (not sufficient).

<i>magna cum laude</i> (with great praise)	<i>satis</i> (sufficient, satisfactory)
<i>cum laude</i> (with praise)	<i>non satis</i> (not sufficient)

Ideally, every average student working diligently should do praiseworthy work (*cum laude*). Those who excel beyond this expectation will be the *magna cum laude* students. Students who do adequate but not praiseworthy work be designated *satis*. *Non satis* means lacking sufficiency or adequacy.

Inasmuch as you might be fully on board with this grading method in theory, there will undoubtedly be the need to complete a college transcript with either a numeric or traditional letter grade. I absolutely understand that and will provide that an official transcript to the requesting parent at the end of each semester.

Mastery portrait: Students who are prepared to take this class are typically mid to late teens, adolescents approaching young-adulthood. This developmental stage is an interesting one, brimming with lots of new characteristics. It's imperative, then, that this course not only provide the academic components necessary to achieve mastery of the content of the class (knowledge) and skills associated with analytical thought; but to also help engage the student in development of their moral virtues. These three aspects of the course would comprise the "learning target".

- At the completion of this course *cum laude* students will be able to determine and evaluate and accurately express the structural validity of syllogistic arguments, arguments in every day language and arguments of their own construction.
- Additionally, they will have attained the skills necessary to not only identify the various parts of the Square of Opposition and patterns of Relationships of Equivalence; but they should also be able to deductively analyze these relationships for further evaluation and determination (exhibiting higher-level problem-solving thinking which will be a precursor to their study of propositional logic).
- Students will also be guided in development of the virtues of Truth, Goodness and Wisdom. Ideally, students will employ wisdom in governing self — refraining from unnecessary and petty argumentation instead developing discernment in conflict and resolution. By the end of the course students should understand that knowledge, rational argumentation and reason are not complete without a humble, teachable spirit; one that is responsible to appropriately engage skills and tools with generosity and respect for others, even their opponents (and their teacher).

STUDENT EVALUATION: GRADING

Mrs. Hodge will communicate with students regarding assignment feedback and grading through the free online grading system, LearnBoost. The teacher will provide students with more detailed information and access to the class grade page when the course begins.

Student's grades will be comprised of:

1. Exams: 30% of the grade
2. Class Participation: 30% of the grade
3. Worksheets and Homework Assignments: 15% of the grade.
4. Final Project: 25% of the grade

ACADEMIC DISHONESTY: Plagiarism is a serious and punishable offense. Proper citation of all sources is essential to the academic endeavor. Remember to cite any source if the information is not common knowledge or is an opinion obtained through any source. A plagiarized assignment will result in a failing grade. Please refer to the MLA Handbook for a thorough description of plagiarism and how to avoid it.

THE VIRTUAL CLASSROOM:

We will be using free online “virtual classroom” software provided by Zoom, one of the leading companies that provides such software. The virtual classroom will provide students with interactive audio, text chat and an interactive whiteboard in which texts, diagrams, video and other media can be displayed and analyzed. We will provide students with a link (via email) that will enable students to join the virtual classroom.

Specific information regarding the technology used by Scholé Academy (including required technology) can be found by visiting <http://www.ScholéAcademy.com>.

Students will submit documents by scanning and uploading them to their personal computer, then attaching those files as .pdfs to an email. They may submit their work to logicinstruction@gmail.com.

ABOUT THE INSTRUCTOR:

Joelle Hodge was one of the original-founding members of Classical Academic Press, is an author, a consultant/speaker, and teaches logic and rhetoric at Scholé Academy online. She is the co-author of two, top-selling logic books, *The Art of Argument* and *The Discovery of Deduction* both published by Classical Academic Press.

She holds a BA in history/political science from Messiah College in Grantham, Pennsylvania. She began her career as a staffer to United States Senator Arlen Specter (R-Pa) before finding her professional home in the world of classical education in 1999. She has more than eighteen years of logic-teaching experience—many of which were spent at a classical school in Harrisburg, Pennsylvania. There she also developed much of their logic and rhetoric curricula.

Currently, Classical Academic Press hosts Joelle’s consultant offerings, where she engages with educators across the country, tailoring workshops for classical schools and co-ops that seek to train their teachers in the fundamentals of dialectic, and rhetoric-stage pedagogy.

Beginning with the 2016-17 academic year, she will also serve as Senior Teacher for Scholé Academy, where she will not only continue to offer courses, but also assist other SA teachers in developing their most productive and inspiring classrooms.

Concurrently, Joelle provides year-round, private, multidiscipline tutoring services to a classically educated family living abroad. Mrs. Hodge teaches the summer course *How to Be a Student* as well as the following yearlong classes: Informal Logic: *The Art of Argument*, Formal Logic: *The Discovery of Deduction*, *Rhetoric 1*, and *Rhetoric 2 & Senior Thesis Prep*.