

Computer Science 338 = Mathematics 338

Topics in Computational Mathematics Computer Algebra

Have you ever wanted a computer to do mathematics the way a person does it? Are you curious about how computer algebra systems such as MATHEMATICA and MAPLE work? This course offers an introduction to computer algebra, the discipline that develops mathematical tools and computer software for the exact or arbitrary precision solution of equations. It evolved as a discipline linking algorithmic and abstract algebra to the methods of computer science and providing a different methodological tool in the border area between applied mathematics and computer science. It has as its theoretical roots the algorithmic-oriented mathematics of the nineteenth and early twentieth centuries and the algorithmic methods of logic developed in the first half of the twentieth century, and it was sparked by the need of physicists and mathematicians for extensive symbolic computations that could no longer be conducted by hand.

The beginning of the course will focus on an introduction to the field, some applications, and basic arithmetic algorithms, including representing and manipulating numbers, the Euclidean Algorithm, modular algorithms, fast multiplication, Newton iteration, factoring over finite fields, and Hensel lifting. Depending on the time and interests of the students, we will then examine more advanced topics such as computational number theory, integration, or linear algebra. **This course requires CSC 111 or permission of the instructor as a prerequisite.** Intermediate or mathematical courses such as linear algebra, number theory, or abstract algebra may be helpful, but they are not required.

Economics 277: Public Policy

The purpose of this course is to use tools from Principles of Economics to study current public policy issues, and to analyze and evaluate existing and proposed policies for dealing with a variety of contemporary economic and social problems in the United States. Students will learn quantitative and qualitative skills useful for assessing public policy issues and their implementation and effectiveness. Topics may include (but are not limited to) health economics (Medicaid, Medicare, health care reform), environmental economics and policy (cap and trade policies), welfare and social services, income distribution, education, and energy economics. Prerequisite: Economics 101.

English 190 Special Topics in Language: Introduction to Creative Writing

This is an introductory course in Creative Writing. English 190 will offer students an opportunity to read and write in several genres: fiction, poetry, and creative nonfiction. The course will focus on writing through the practice of various methods of generation used by established writers, designed to introduce students to issues of language, form, image, character, and structure. Students will also learn critical tools for assessing good writing and be introduced to the workshop model for discussing creative work. Students will acquire these tools through peer review, through close reading of contemporary texts, and through revision. The course is especially suited to students who would like to learn a variety of creative genres before committing themselves to genre-specific creative writing courses.

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English 497: Seminar in English—Science Fiction Studies

This is a senior-level seminar in one of the most prolific of modern literary genres. As befitting its topic, the seminar will require not only traditional textual analysis, but will also explore futuristic technological structures. In the first part of the course, we will read several novels by two important S-F authors, Phillip K. Dick, and William Gibson, as well as a number of critical approaches to their work. In the second part of the course, each student will select a well-known science fiction author as the subject of an intensive critical study, taking the form of an article modeled after publications in *Science Fiction Studies*—the premier academic journal in this field. In the final part of the course, students will develop a more technological form of their critical study, such as a video, web site, or PowerPoint. This will be presented during our regularly-scheduled final exam.

German 277 = Humanities 377: Freud and the Question of Interpretation

What makes a joke funny? Why do we make slips of the tongue? What do dreams mean? Can we read literature like we read dreams? This course will answer such questions by reading the major works of Sigmund Freud, one of the twentieth century's most influential thinkers. Throughout the semester, we will focus on Freud as a reader and interpreter – of dreams, literary texts, and everyday cultural phenomena. All discussions, readings, and assignments in English. Students wishing to take the course for credit in German will do readings and write papers in German and will have a weekly discussion session in German.

Mathematics 178-01 - Probability

This course taken with Math 178-02 is the equivalent of Math 107. In Math 178-01, topics include a brief introduction to probability, conditional probability, and expected values as well as the application of probabilistic reasoning to interesting problems in the areas of medical testing, investing, insurance, retirement annuities, and the analysis of rare events. Math 178-01 does not count toward the mathematics major or minor. Credit will not be given to students who take this course who have already taken Math 107. No Prerequisite. 1st half-semester

Mathematics 178-02 - Statistics

This course taken with Math 178-01 is the equivalent of Math 107. (178-01 is not a prerequisite for 178-02). Topics include paradoxes involving averages, correlation, and prediction. The classical approach to statistical reasoning is also presented, both the p-value argument to testing claims and the confidence interval approach to estimation. Math 178-02 does not count toward the mathematics major or minor. Credit will not be given to students who take this course who have already taken Math 107. No Prerequisite 2nd half-semester

Mathematics 277-01 - Probability Models

This course covers probability material formerly covered in Math 227. Math 277 is an introduction to discrete and continuous random variables. Distributions considered include the hypergeometric, binomial, geometric, Poisson, uniform, normal, gamma, chi-square, t and F. We will cover the Central Limit Theorem, multivariate distributions, and transformations of random variables. Students taking this course are also encouraged to sign up for one of the two follow-up courses offered the second half of the semester, Math 377-02, Probability Models II, or Math 377-03, Regression Models. Credit will not be given to students who take this course who have already taken Math 227. Prerequisite: Mathematics 112 1st half-semester

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Mathematics 377-01 Mathematical Finance II

This course is a continuation of Math. 377 Mathematical Finance. Topics include the pricing of exotic options, financial calculus and Ito's Lemma, several interest rate models, and bond options.

Mathematics 377-02 Probability Models II

This course is a continuation of 277-01. Topics include survival functions, hazard functions, order statistics, continuous and discrete distributions not considered in Probability Models I and mixed random variables. We will look at a wide variety of probability problems associated with insurance. Prerequisite: Probability Models I (See 277-01 above) 2nd half-semester

Mathematics 377-03 - Regression Models

This course is a matrix-based presentation of regression. We will concentrate on the probabilistic reasoning behind regression in particular the inferences we can make using linear combinations of normal random variables. Prerequisite: Math 223 (concurrent registration OK) and either Probability Models I (See 277-01 above) or Math 227. 2nd half-semester

Philosophy 109-01 and Philosophy 109-02—Perspectives on Philosophy: Friendship

What are friends for? Who do we count among our friends? What are the ethical benefits and ethical dilemmas that occur in friendship? How do friendships contribute to our character and identity? What is the role of friendship in a good life? We will explore some of the ways philosophers have tried to answer these questions beginning with Plato and Aristotle and moving historically through such thinkers as Cicero, Seneca, Aquinas, Montaigne, Nietzsche, and several more contemporary philosophers who are taking a renewed interest in friendship. This is an

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introductory course for freshmen only. It is a half-semester course which is being offered in each half semester. No prerequisite.

Philosophy 219-01—Topics in Ethics and Social Philosophy: Law and Sovereignty in Hobbes and Rousseau

This course is divided into two, half-semester courses; the first half will cover the political philosophy of Thomas Hobbes' *Leviathan* and J.J. Rousseau's *Social Contract*; the second half will cover the implications of these ideas, as articulated by Carl Schmitt. We will read Hobbes and Rousseau as foundational for contemporary political arrangements. We will pay special attention to the relationship of political authority to the rule of law. This is a seminar / discussion course; students will be expected to read thoroughly and carefully and to come to class prepared to interrogate, summarize and evaluate the assigned material. All students, including those with no experience in philosophy, are welcome. Please note that PHI 219-01 is the prerequisite for the second-half semester.

Philosophy 219-02—Topics in Ethics and Social Philosophy: Law and Sovereignty in Carl Schmitt

This course is divided into two, half-semester courses; the first half will cover the political philosophy of Thomas Hobbes' *Leviathan* and J.J. Rousseau's *Social Contract*; the second half will cover the implications of these ideas, as articulated by Carl Schmitt. Schmitt one of the 20th century's most important and notorious political philosophers. For Schmitt, the relationship of political authority to the rule of law in Hobbes and Rousseau reveals the cause of the eventual collapse of the Weimar Republic. This is a seminar / discussion course; students will be expected to read thoroughly and carefully and to come to class prepared to interrogate, summarize and evaluate the assigned material. All students, including those with no experience in philosophy, are welcome. Please note that PHI 219-01 is the prerequisite for the second-half semester.

Philosophy 349—Seminar in the History of Philosophy: Foucault

This course investigates the trajectory of Foucault's work from his early studies of madness through his genealogical work on disciplinary power and sexuality to his later work on techniques of the self as ethical/aesthetic tools. Through close readings of Foucault's texts and interviews, we will discover what makes Foucault such an exciting and challenging thinker. We will attempt to start formulating answers to questions such as: is there justification for Foucault's destabilization of concepts like self and truth? If such concepts are undermined, how is philosophy itself grounded? Does Foucault's understanding of power and discursive construction contradict or cohere with his understanding of the self as agentic? Is there any benefit – philosophically, politically, pragmatically, or otherwise – to historicizing and undermining universal, stable definitions of truth and selfhood? *Prerequisite:* a least one previous philosophy course.

Political Science 330: History of Political Thought--Medieval Political Theory

In this course I want to argue that the medieval period is still vital for politics and political theory, but not necessarily in the same way as classical, Renaissance or early modern political theory. I want to make the case that the romances and histories of the period are just as important as the religious and legal texts. Many of the ideals that reached their fullest expression in the medieval romances and histories like the savior king, courtly love and the knightly warrior exercise a strong grip on the modern imagination and are critical to the formation of deep and

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(mostly) unexamined political/cultural attitudes. Not only must we examine these attitudes, we must ask ourselves a key question: If we are obsessed, at some level, with these qualities, are we thus doomed to be forever separated from the 'Enlightened' or 'free' attitudes that are necessary for the success of modern political goals? In this course we will examine medieval authors like Augustine, Al-Farabi, Averroes, Boethius, Dante, Chretien de Troyes and Geoffrey of Monmouth; modern authors like Erich Fromm, Herbert Marcuse and Mark Twain; and modern films like *The Seventh Seal*, *The Virgin Spring*, *The Lion in Winter*, *Becket*, *The Lord of the Rings*, *X2: X-Men United* and *Indiana Jones and the Last Crusade*."

Psychology 210-02 = Spanish 402: Cognitive Approaches to Spanish Golden Age Literature

This course will examine works of the Spanish Golden Age from the point of view of human cognition and development. Literary, philosophical, and medical texts will be studied and compared in order to illustrate the osmosis among different discourses about human nature that circulated in Spain during the early modern period. Sources include Miguel de Cervantes' *Don Quixote*, Calderón de la Barca's *Life is a Dream*, Juan Huarte de San Juan's *The Examination of Men's Wits*, and Juan Luis Vives' *Treatise on the Soul*. Among the themes explored are the brute/ human paradigm, intersubjectivity and intentionality, the function of dreams, and the dynamics between power and psychology.

Religion 230 Topics in East Asian Religion: Zen Buddhism

In this course we will try to understand Zen Buddhism by looking at its principal beliefs and practices, with an eye to both their historical context and their "inner logic." We will pay special attention to the way in which Zen transformed the very questions Buddhists thought it was important to ask, and the way that transformation subsequently influenced the culture, art, literature, and religion of East Asia and the United States. Discussions will be based on readings from the classical texts of the Theravada, Mahayana, and Zen traditions, as well as from more recent literature. Some time will be spent practicing Zen meditation techniques in class. Prerequisite: Religion 104, or the consent of the instructor.

Religion 370—Contemporary Theology: African and African American Theology

This course will explore issues pertaining not only to African American theology but also the explosion of theology work in Africa. The course will be constructive (what do these theologies try to change in the world) and systematic (how do the various components of these theologies fit together). We will ask what Northern Hemisphere theologians have to learn from the growth in both numbers and sophistication of Southern Hemisphere theologians. We will also try to identify the historical and cultural factors that comprise African and African American theology. No prerequisites are required, but the theoretical texts in this course suggest that some background in religion, philosophy, or history would be helpful.

Rhetoric 370-01 Environmental Communication in the Public Sphere

In recent years we have seen a dramatic increase in the interest of greening everything from our colleges and communities to our food and transportation. While participating in recycling programs or taking steps to reduce one's carbon footprint may now appear to be common concerns, these issues have only become so due to the public conversations that have taken place about the relationship between human culture and the natural environment. This course will explore the ways in which we communicate about our environment and how symbolic

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representations have shaped public discussions. Questions of stewardship, conservation, and sustainability will focus our discussions as we look to unravel the discussions and controversies that will shape the future of our shared environment. Readings will come from a wide-variety of sources including academic essays, governmental reports and hearings, news media, and documentaries. Assignments will likely include two exams, two short position papers, and a research essay. This course fulfills a Literature and Fine Arts distribution credit.

Spanish 402 = Psychology 210-02: Cognitive Approaches to Spanish Golden Age Literature

This course will examine works of the Spanish Golden Age from the point of view of human cognition and development. Literary, philosophical, and medical texts will be studied and compared in order to illustrate the osmosis among different discourses about human nature that circulated in Spain during the early modern period. Sources include Miguel de Cervantes' *Don Quixote*, Calderón de la Barca's *Life is a Dream*, Juan Huarte de San Juan's *The Examination of Men's Wits*, and Juan Luis Vives' *Treatise on the Soul*. Among the themes explored are the brute/ human paradigm, intersubjectivity and intentionality, the function of dreams, and the dynamics between power and psychology.

Theater 103-01 Flash Drama, Vaudevilles, and the One-Act Play

The one-act play is to the full-length play as the short story is to the novel. The strength of the one-act play is in its economy of action where events and characters are pared down to dramatic essences. Although brevity is its trademark, the one-act play is no less complex than the full-length play. In fact, many leading playwrights have found the one-act structure, flash dramas, and vaudevilles, appropriate for their dramatic ideas. In this seminar we study the elements of drama revealed in the one-act play, participate in class performance projects, and study representative works by Euripides, Anton Chekhov, Lady Gregory, Eugene O'Neill, Arthur Miller, Susan Glaspell, Edward Albee, Amiri Baraka, Vaclav Havel, August Wilson, and others. 1st Half Semester Course.

Theater 103-02 "Multicultural Theater in America"

Theater has often served as a way for marginalized racial and ethnic groups to express identity. In this course, we will look at plays written by African American, Latino/a and Asian American playwrights. Some of the plays we will read include *Radio Golf* by August Wilson, *Venus* by Suzan-Lori Parks, *The Colored Museum* by George C. Wolfe, *Anna in the Tropics* by Nilo Cruz, *Zoot Suit* by Luis Valdez, *Mambo Mouth* by John Leguizamo, *Yankee Dawg You Die* by Philip Kan Gotanga, and *BFE* by Julia Cho. We will learn the history of the African American, Latino/a, and Asian American theatrical traditions. In doing so, we will explore how theater exists as a vital and powerful tool for expressing the values, cultures, and perspectives of the diverse racial and ethnic groups in America. 2nd Half Semester Course.