

CONCOURSE (CC)

Concourse Science Subjects

Chemistry

CC.5111 Principles of Chemical Science

Prereq: None. *Coreq: CC.010 or CC.A10*

U (Fall)

5-0-7 units. CHEMISTRY

Credit cannot also be received for 3.091, 5.111, 5.112, ES.5111, ES.5112

Equivalent to 5.111; see 5.111 for description. Limited to students in Concourse.

E. Taylor

CC.512 Organic Chemistry I

Prereq: Chemistry (GIR); *Coreq: CC.010, CC.011, or CC.A10*

U (Spring)

5-0-7 units. REST

Credit cannot also be received for 5.12

Equivalent to 5.12; See 5.12 for description. Limited to 25. Non-Concourse students require permission to join.

E. Taylor

Mathematics

CC.1801 Calculus

Prereq: None

U (Fall)

Not offered regularly; consult department

5-0-7 units. CALC I

Credit cannot also be received for 18.01, 18.01A, 18.01L, ES.1801, ES.181A

Equivalent to 18.01; see 18.01 for description. Limited to students in Concourse.

D. Keliher

CC.1802 Calculus

Prereq: Calculus I (GIR); *Coreq: CC.010, CC.011, or CC.A10*

U (Fall, Spring)

5-0-7 units. CALC II

Credit cannot also be received for 18.02, 18.022, 18.02A, ES.1802, ES.182A

Equivalent to 18.02; see 18.02 for description. Limited to students in Concourse.

D. Keliher

CC.1803 Differential Equations

Prereq: None. *Coreq: Calculus II (GIR) and (CC.010, CC.011, or CC.A10)*

U (Spring)

5-0-7 units. REST

Credit cannot also be received for 18.03, 18.032, ES.1803

Equivalent to 18.03; see 18.03 for description. Limited to students in Concourse.

D. Keliher

CC.1806 Linear Algebra (New)

Prereq: Calculus II (GIR)

U (Spring)

Not offered regularly; consult department

4-0-8 units. REST

Credit cannot also be received for 6.Co6[()], 18.06, 18.700, 18.Co6[()]

Basic subject on matrix theory and linear algebra, emphasizing topics useful in other disciplines, including systems of equations, vector spaces, determinants, eigenvalues, singular value decomposition, and positive definite matrices. Applications to least-squares approximations, stability of differential equations, networks, Fourier transforms, and Markov processes. Uses linear algebra software. Compared with 18.700, more emphasis on matrix algorithms and many applications. Limited to Concourse students.

D. Keliher

Physics

CC.082 Discovering Electricity and Magnetism

Prereq: None

U (Spring)

Not offered regularly; consult department

2-0-1 units

In this seminar, students discover some of the concepts covered in 8.022 from the perspective of a practicing physicist. Employs vector calculus as an alternative tool for problem solving, and introduces the relativistic origin of magnetism. We will meet twice weekly to discuss these concepts as well as to work together on more advanced kinds of problems. Aims to further engage students already interested in majoring in physics, as well as those who wish simply to discover what physics has to offer. Subject can count toward the 6-unit discovery-focused credit limit for first-year students. Limited to students enrolled in Concourse.

R. Lang

CC.801 Physics I

Subject meets with CC.8012

Prereq: None. *Coreq: CC.010 or CC.A10*

U (Fall)

5-0-7 units. PHYSICS I

Equivalent to 8.01; see 8.01 for description. Limited to students in Concourse.

R. Lang

CC.8012 Physics I

Subject meets with CC.801

Prereq: None. *Coreq: CC.010 or CC.A10*

U (Fall)

5-0-7 units. PHYSICS I

Equivalent to 8.012; see 8.012 for description. Limited to students in Concourse.

R. Lang

CC.802 Physics II

Subject meets with CC.8022

Prereq: Calculus I (GIR) and Physics I (GIR); *Coreq: CC.010, CC.011, or CC.A10*

U (Spring)

5-0-7 units. PHYSICS II

Equivalent to 8.02; see 8.02 for description. Limited to students in Concourse.

R. Lang

CC.8022 Physics II

Subject meets with CC.802

Prereq: Physics I (GIR); *Coreq: Calculus II (GIR)*

U (Spring)

5-0-7 units. PHYSICS II

Equivalent to 8.022; see 8.022 for description. Limited to students in Concourse.

R. Lang

Concourse HASS Subjects

CC.110 Becoming Human: Ancient Greek Perspectives on the Good Life

Prereq: None. *Coreq: CC.010 or CC.A10*

U (Fall)

3-0-9 units. HASS-H; CI-H

Explores the question of the good life in the major literary and philosophic thinkers of ancient Greece. Considers topics such as justice, moral virtue, friendship, love, and the life of the mind both for an individual and as part of society. Students debate the classical Greek answers to these questions and consider ways in which these answers apply to our present lives. Includes selected works by authors such as Homer, Sophocles, Euripides, Aristophanes, Plato, Aristotle, and Epicurus. Limited to students in Concourse.

L. Rabieh

CC.111[J] Modern Conceptions of Freedom

Same subject as 17.04[J]

Prereq: None

U (Spring)

Not offered regularly; consult department

3-0-9 units. HASS-H; CI-H

Students read early modern political theorists, and trace the growth of the value of freedom. Examines the modern definition of freedom, and the obligations that people accept in honoring it. Also investigates how these obligations are captured in the principles of our political association. Studies how the centrality of freedom plays out in the political thought of such authors as Hobbes, Locke, Rousseau, Burke and Montesquieu. Students also debate which notions of freedom inspire and sustain the American experiment by carefully reading the documents and arguments of the founding of the United States. Preference to students in Concourse.

L. Rabieh

CC.115 Writing About Big Questions: Defending Poetry

Prereq: None

U (Fall)

3-0-9 units. HASS-H; CI-HW

Intensive focus on the reading and writing skills used to analyze a variety of challenging texts. Coverage includes Platonic dialogues and other works of philosophy, poetic treatises (like Sidney's *Defense of Poesy*, or Wordsworth and Coleridge's "Preface" to *Lyrical Ballads*), and creative works by the same writers, as well as criticism that probes how such texts may relate to, qualify, and inform each other. Students practice various forms of argument, orally and in writing, and consider how purpose and audience may influence one's approach. Designed to prepare students for further work in the liberal arts, as well as to promote increased confidence and enjoyment in reading, writing, and analysis. Students write or revise essays throughout the term. Preference given to Concourse students.
E. Zimmer

CC.116 How to Rule the World: The Promises and Pitfalls of Politics, War, and Empire

Prereq: None

U (Spring)

Not offered regularly; consult department

3-0-9 units. HASS-H; CI-H

Explores the ambitions and constraints of political rule in order to understand how transformational leaders have (or should have) managed both in the service of good government. Employs normative and empirical methods to assess effective leadership, with particular attention to trade-offs between justice and security and to competing notions of justice itself. Includes case studies and various foundational texts that address the theme of great political leadership. Drawing on the texts, students discern different criteria for good rule and assess both the adequacy of those criteria and whether case studies support them. Preference to Concourse students.
L. Rabieh

CC.117[J] Humane Warfare: Ancient and Medieval Perspectives on Ethics in War

Same subject as 17.05[J]

Prereq: None

U (Spring)

3-0-9 units. HASS-H; CI-H

Explores questions of justice and ethics in war by focusing on primary texts of pre-modern works of history, philosophy, literature, and Biblical interpretation. Readings from antiquity include Thucydides, Aristophanes, and Cicero. Examination of the Biblical tradition of just war, itself informed by the classical tradition, includes readings from early and Medieval Christian and Islamic thinkers and proceeds through the early Renaissance, with the beginning of a formalized doctrine of just war theory. Readings about current ethical dilemmas of war are discussed throughout and are given sustained attention at the end of the term. Preference to Concourse students.
L. Rabieh

CC.118[J] Knowledge, Opinion, and Truth

Same subject as 24.122[J]

Prereq: None

U (Spring)

Not offered regularly; consult department

3-0-9 units. HASS-H

Seminar subject in political philosophy. Examines what it means for something to be true, how the truth is connected to what we mean by knowledge, and the difference between knowledge and opinion. Students engage in a close reading and discussion of Plato's three epistemological works. Taught as guided discussions of texts and student papers. Preference to students in Concourse.
L. Rabieh

CC.120[J] Making Books in the Renaissance and Today

Same subject as 21H.343[J]

Prereq: None

U (Fall, Spring)

3-0-9 units. HASS-A

See description under subject 21H.343[J]. Limited to 12.
E. Zimmer

Concourse Seminars

CC.010 Seminar I

Subject meets with CC.A10
 Prereq: Permission of instructor
 U (Fall)
 2-0-1 units
 Can be repeated for credit.

The key academic integration in which philosophical, historical, and sociological topics are connected with modern science. Combination of outside speakers and Concourse faculty lead weekly luncheon discussion. Subject can count toward the 6-unit discovery-focused credit limit for first year students. Limited to Concourse students.

Staff

CC.011 Seminar II

Prereq: None
 U (Spring)
 2-0-1 units
 Can be repeated for credit.

Researchers from across MIT join the Concourse seminar to explore the topic of "Thinking Across the Disciplines." Concourse faculty lead weekly luncheon discussions with our guests from the wider MIT faculty. Subject can count toward the 6-unit discovery-focused credit limit for first year students. Preference to students in Concourse.

Staff

CC.012 Continuing Conversations

Prereq: None
 U (Fall, Spring)
 2-0-1 units
 Can be repeated for credit.

Close reading and vigorous discussion of an important book or theme, chosen to explore philosophical, ethical, and political questions that span the ages and disciplines. Readings and themes vary by term. Past examples include Aristotle's Physics, Plato's dialogue on knowledge, the Theaetetus, and a variety of writings that exemplify liberalism and conservatism in the American tradition. Preference to Concourse students.

L. Rabieh, A. McCants

Concourse Teaching and Research

CC.200 Concourse Program Undergraduate Teaching

Prereq: Permission of instructor
 U (Fall, IAP, Spring)
 Not offered regularly; consult department
 Units arranged
 Can be repeated for credit.

Tutoring, leadership of study and review groups, seminars and recitations in the Concourse Program, under the supervision of senior Concourse staff. Limited to students in Concourse.

Staff

CC.210 Independent Study

Prereq: Permission of instructor
 U (Fall, IAP, Spring)
 Units arranged [P/D/F]
 Can be repeated for credit.

Opportunity for independent study under regular supervision by a staff member. Projects require prior approval, as well as a written proposal and a final report. Limited to students in Concourse.

Staff

CC.220 Independent Study

Prereq: None
 U (Fall, Spring)
 Units arranged
 Can be repeated for credit.

Opportunity for independent study under regular supervision by a staff member. Projects require prior approval, as well as a written proposal and a final report. Limited to students in Concourse.

Staff

CC.UR Undergraduate Research

Prereq: Permission of instructor
 U (Fall, Spring)
 Units arranged [P/D/F]
 Can be repeated for credit.

For students wishing to pursue undergraduate research opportunities in Concourse. Limited to students in Concourse.

Staff

Concourse Special Subjects

CC.S10 Current Events Seminar

Prereq: Permission of instructor

U (Fall, IAP, Spring)

1-0-2 units

Can be repeated for credit.

Weekly discussion of the news, with emphasis on framing contemporary issues in a broader historical and philosophical context. Preference to students in Concourse.

S. Rickard

CC.S11 Special Subject: Concourse

Prereq: None

U (Fall, IAP, Spring)

Not offered regularly; consult department

Units arranged

Can be repeated for credit.

Covers topics not included in the permanent curriculum. May be repeated for credit with permission of instructor. Preference to students in Concourse.

Staff

CC.S20, CC.S21 Special Subject: Concourse

Prereq: None

U (Fall, IAP, Spring)

Units arranged [P/D/F]

Can be repeated for credit.

Covers topics not included in the permanent curriculum. May be repeated for credit with permission of instructor. Preference to students in Concourse.

Staff