## EDITOR'S SANDBOX

If you stumble across this hidden page, ignore it. Just a sandbox to try stuff out and store deleted content

## COVID-19-Related Degree Requirement Changes

For information on how Aeronautics and Astronautics degree requirements have been affected by the pandemic, see the "COVID-19 Policies tab (http://exploredegrees.stanford.edu/schoolofengineering/ aeronauticsandastronautics/\#covid19policiestext)" in the "Aeronautics and Astronautics" of this bulletin. For University-wide policy changes related to the pandemic, see the "COVID-19 and Academic Continuity (http://exploredegrees.stanford.edu/covid-19-policy-changes/)" section of this bulletin.

## https://exploredegreesnextyear.stanford.edu/vptl/ Minor in Modern Languages

The Division of Literatures, Cultures, and Languages offers an undergraduate minor in Modern Languages for students demonstrating competency in two modern languages and literatures. This minor draws on literature and language courses offered in this and other literature departments.See the "Literatures, Cultures, and Languages (http://exploredegrees.stanford.edu/schoolofhumanitiesandsciences/ divisionofliteraturesculturesandlanguages/
\#minorinmodernlanguagestext)" section of this bulletin for requirements.

## Master of Science in Medicine, Subplan in Biomedical Investigation

The University's basic requirements for the M.S. degree are discussed in the "Graduate Degrees (http://exploredegrees.stanford.edu/ graduatedegrees/)" section of this bulletin.

## Overview

The goal of the Stanford Berg's Scholars Program (Master of Science in Medicine with a subplan in Biomedical Investigation) is to address decreasing numbers of physician-scientists by shortening the training period without compromising quality of research, focusing instead on individualized career development of our M.D.-only physician-scientists by placing them in outstanding research groups led by experienced faculty.

## Degree Requirements

Berg Scholars must complete all Stanford University requirements for the Masters in Science (M.S.) in Medicine in Biomedical Investigation while pursuing their M.D. Students must adhere to the University's residency requirements (http://exploredegrees.stanford.edu/graduatedegrees/ \#residencytext). Units may not be duplicated or double-counted toward the residency requirement for both degrees. Students must complete the master's degree requirements within three years of the first graduate quarter of the M.S.

## Course Requirements

Students are required to complete 280 minimum units (combined M.S. and M.D.) to graduate. These unit are broken down as follows:

- 45 unduplicated units taken in specific courses for the M.S. degree
- 33 units in research
- 12 units of coursework ( 11 required plus 1 elective)
- 235 units in pre-clinical and clinical clerkships for the M.D. degree

Only courses 100 level or above can be counted towards the degree. A minimum of 23 units must be at the 200 -level or above. All courses towards the 45 -units must receive a passing grade.

|  |  | its |
| :---: | :---: | :---: |
| Core Courses |  |  |
| MED 255 | The Responsible Conduct of Research | 1 |
| INDE 217 | Physician Scientist Hour (take this course three times) | 3 |
| INDE 258 | PSTP Career Development Symposium | 1 |
| SOMGEN 223 | Introduction to R for data analysis | 3 |
| Choose one of the following |  | 3 |
| EPI 259 | Introduction to Probability and Statistics for Epidemiology |  |
| EPI 261 | Intermediate Biostatistics: Analysis of Discrete Data |  |
| or an equivalent course for a minimum of 3 units |  |  |
| Research Units |  |  |
| Complete 33 units of research from the SoM department in the student's file of study |  | 33 |
| Such courses are typically numberd 399 |  |  |
| Elective courses |  |  |
| Choose one or more of the following: |  | 1-5 |
| MED 221 | Translational Research and Applied Medicine |  |
| $\begin{aligned} & \text { BIOE 390/ } \\ & \text { MED } 289 \end{aligned}$ | Introduction to Bioengineering Research |  |
| BIO/BIOC 459 | Frontiers in Interdisciplinary Biosciences |  |
| BIODS 260A | Workshop in Biostatistics |  |
| BIODS 260B | Workshop in Biostatistics |  |
| BIODS 260C | Workshop in Biostatistics |  |
| BIOE/BIOMEDIN/ GENE 212 | Introduction to Biomedical Informatics Research Methodology |  |
| BIOMEDIN 233/ HRP 261 | Intermediate Biostatistics: Analysis of Discrete Data |  |
| BIOMEDIN 251/ <br> HRP 252/MED 252 | Outcomes Analysis |  |
| BIOS 274 | Introductory Python Programming for Genomics |  |
| CHPR 206 | Meta-research: Appraising Research Findings, Bias, and Meta-analysis |  |
| CHPR 227 | The Science of Community Engagement in Health Research |  |
| COMPMED 211 | Biostatistics for the Life Sciences |  |
| GENE 211 | Genomics |  |
| HRP 207 | Introduction to Concepts and Methods in Health Services and Policy Research I |  |
| HRP 208 | Introduction to Concepts and Methods in Health Services and Policy Research II |  |
| EPI 216 | Analytical and Practical Issues in the Conduct of Clinical and Epidemiologic Research |  |
| HRP 218 | Methods for Health Care Delivery Innovation, Implementation and Evaluation |  |
| EPI 219 | Evaluating Technologies for Diagnosis, Prediction and Screening |  |


| EPI 223 | Introduction to Data Management and Analysis in SAS |
| :---: | :---: |
| EPI 225 | Introduction to Epidemiologic and Clinical Research Methods |
| EPI 226 | Intermediate Epidemiologic and Clinical Research Methods |
| HRP 228 |  |
| HRP 259 |  |
| EPI 261 | Intermediate Biostatistics: Analysis of Discrete Data |
| EPI 262 | Intermediate Biostatistics: Regression, Prediction, Survival Analysis |
| EPI 264 | Foundations of Statistical and Scientific Inference |
| EPI 275 | Population Health Research |
| IMMUNOL 210 | Immunology Research Seminars for Medical Students |
| MED 206 | Meta-research: Appraising Research Findings, Bias, and Meta-analysis |
| MED 224 | Social Entrepreneurship and Innovation Lab (SE Lab) - Human \& Planetary Health |
| MED 254 |  |
| NSUR 249 | Experimental Immersion in Neuroscience |
| ORTHO 10SI |  |
| RADO 203SI |  |
| STEMREM 201A | Stem Cells and Human Development: From Embryo to Cell Lineage Determination |
| SURG 202A | Practical Applications for Qualitative Data Analysis |
| SURG 202B |  |
| SURG 202C | Qualitative Research Methods and Study Design |

Total Units

## Non-Course Requirements

Additionally, students must complete the following non-course requirements in order to confer their degree.

## Research Proposal

Students must submit a written research proposal for committee review.

## Research Proposal Presentation

Students must orally present their proposed research to their research committee for approval.

## Thesis Defense

Students must defend their thesis with an oral presentation and closed door questioning from their research committee.

## Thesis

Students must publish their thesis in order to confer their M.S. degree.

The following requirements are for academic year 2019-20. The program is revising B.S. requirements for academic year 2020-21, and these requirements will be published here prior to Axess opening on September 1, 2020.

## Bachelor of Science in Symbolic Systems

The program offers a Bachelor of Science in Symbolic Systems, as well as an Bachelor of Science with Honors in Symbolic Systems (p. 14) and a Minor in Symbolic Systems (http://exploredegrees.stanford.edu/
schoolofhumanitiesandsciences/symbolicsystems/\#minortext). A major in Symbolic Systems qualifies as a Science, Technology, Engineering, and Mathematics (STEM) major under the U.S. Department of Homeland Security's Designated Degree Programs (https:// studyinthestates.dhs.gov/eligible-cip-codes-for-the-stem-opt-extension/) list of STEM programs. Depending on the plan of study, Sym Sys students can be classified as studying Cognitive Science (2010 CIP Code 30.2501) and/or Informatics (2010 CIP Code 11.0104).

Students declaring the major prior to 2020-21 should consult previous Stanford Bulletins (http://exploredegrees.stanford.edu/archive/\#text) for degree requirements. Such students should consult the student services office if they want to change to the new requirements.

## How to Declare the Major

To declare a major in Symbolic Systems, a student must:

- Be enrolled in or have completed SYMSYS 1 Minds and Machines
- Declare the major in Axess, and have the declaration approved by the program student services officer.
- Submit a preliminary Course Plan (https://symsys.stanford.edu/ undergraduates/forms/) form for the major to a declaration interview with one of the Advising Fellows (https://symsys.stanford.edu/ undergraduates/advising-fellows/) or with the Associate Director of the Program; see the calendar of Office Hours (https:// symsys.stanford.edu/undergraduatesundergrad-advisingadvising-fellows/advising-office-hours/) on the Symsys website for possible interview times


## Advising

Upon declaration approval, students are assigned to both the Program Director and Associate Director as major advisors. The student must also select and confirm a concentration advisor.

- Declared majors have until the Autumn Quarter of their junior year to select a concentration advisor. Juniors declaring the major must have a concentration advisor confirmed at the time of declaration.
- Any individual with an ongoing instructional appointment at Stanford (listed as such in Chapters 2, 6, or 9 of the Faculty Handbook (https:// facultyhandbook.stanford.edu/)) may serve as the concentration sdvisor. To confirm a concentration advisor after an eligible faculty member has agreed to fill this role, student must send an email message to symsys-sso@stanford.edu and the concentration advisor, including a statement of how the student plans to fulfill the capstone requirement of the major. Changes to capstone plans require the approval of the concentration advisor.


## Degree Requirements

The Symbolic Systems major requires completion of:

- The core: a common set of foundations, breadth requirements, and experiential requirements that all students in the program must complete
- An approved concentration: depth in a particular specialization chosen by the student. See a list of Concentrations (p. 5) below.

Students must submit a course plan to the student services officer for Symbolic Systems at least two quarters prior to the planned graduation date, listing courses taken or that will be completed to fulfill the course requirements for the major.

Students must obtain approval for any courses not listed as approved for a major requirement.

All courses taken to fulfill a major requirement for Symbolic Systems must be passed with either a letter grade ('C-' or better for core courses, and a 'D-' or above for concentration courses) a no-option pass grade
('S' or its equivalent in the Graduate School of Business, Stanford Law School, or School of Medicine, or in an approved transfer credit course from another institution. A 'CR' cannot be used to fulfill a major requirement for Symbolic Systems. Students who have already completed a required course with a 'CR' grade may file a Replacement Petition to take a course in the same subject area at the same or a higher level in order to avoid having to retake the course.

Unless otherwise stated, each course that is counted for the major must be taken for 3 units or more. Taking a course for 3 units is sufficient unless the requirement specifically states otherwise

Each course taken for the major may be counted toward at most one required course in either the Core or Concentration (not both), except in cases where double-counting is explicitly allowed.

Students in a dual degree program (http://exploredegrees.stanford.edu/ undergraduatedegreesandprograms/\#dual-degrees), students taking a minor, or students in coterminal program (http:// exploredegrees.stanford.edu/cotermdegrees/), may not double-count courses towards different degree programs or minors unless a course is an introductory skill requirement (https://symsys.stanford.edu/ undergraduatesminor-requirements/introductory-skill-requirements/) for both majors.

The program is open to requests to approving courses not listed as options to fulfill major requirements. Consult the student services office for details of this process.

## Core

Core requirements are typically completed earlier than a student's concentration, but the only requirements that impose explicit restrictions on when a course can be completed during a student's undergraduate career are the gateway and capstone requirements.

## Course Requirements

1. Foundations. These courses should be completed early in the

Units major.
a. Gateway Course. Must be taken before a major declaration can be approved.

| SYMSYS 1 | Minds and Ma |
| :--- | :--- |
| b. Single Variable Calculus. One of th |  |
| Series 1 |  |
| MATH 19 | Calculus |
| \& MATH 20 | and Calculus |
| \& MATH 21 | and Calculus |

Series 2
10 units of Advanced Placement Calculus credit
Series 3
Placement by the Mathematics Placement Diagnostic into MATH 20 or MATH 21 and completion of the rest of the series, or into MATH 51
3. Continuous Fundamentals Level 2-Multivariable Calculus

Select one of the following: ${ }^{1}$

| CME 100 | Vector Calculus for Engineers |
| :--- | :--- |
| CME 100A | Vector Calculus for Engineers, ACE |
| MATH 51 | Linear Algebra, Multivariable Calculus, and |
|  | Modern Applications |

4. Continuous Fundamentals Level 3-Probability and Statistics 3-5

Select one of the following:

| CS 109 | Introduction to Probability for Computer <br> Scientists |
| :--- | :--- |
| CME 106/ | Introduction to Probability and Statistics |
| ENGR 155C | for Engineers |
| EE 178 | Probabilistic Systems Analysis |
| MS\&E 120 | Introduction to Probability |
| MS\&E 220 | Probabilistic Analysis |
| STATS 110 | Statistical Methods in Engineering and the <br> Physical Sciences |
| STATS 116 | Theory of Probability |

5. Discrete Fundamentals 9-15
a. Computing Level 1

Select one of the following:
CS 106A Programming Methodology
CS 106AP (not offered this year)
Or equivalent preparation, as judged by student
b. Computing Level 2

Select one of the following:

| CS 106B | Programming Abstractions |
| :--- | :--- |
| CS 106X | Programming Abstractions |

c. Logic and Computational Theory

Select one of the following:

| CS 103 | Mathematical Foundations of Computing |  |
| :--- | :--- | :--- |
| PHIL 150 | Mathematical Logic |  |
| 6. Technical Depth ${ }^{2}$ |  | $\mathbf{6 - 1 0}$ |

Select two of the following:
Area A. Computer Programming
CS 107 Computer Organization and Systems or CS 107E Computer Systems from the Ground Up
Area B. Computational Theory
CS 154 Introduction to the Theory of Computation
CS 161 Design and Analysis of Algorithms
PHIL 151A Recursion Theory

| Area C. Logic |  |
| :---: | :--- |
| CS 157 | Computational Logic |
| PHIL 151 | Metalogic |
| PHIL 152 | Computability and Logic |
| PHIL 154 | Modal Logic |

Area D. Decision Theory/Game Theory

| CS 238 | Decision Making under Uncertainty |
| :--- | :--- |
| ECON 160 | Game Theory and Economic Applications |
| ECON 180 | Honors Game Theory |
| MGTECON 613 | Foundations of Game Theory |
| MS\&E 232 | Introduction to Game Theory |
| MS\&E 252 | Decision Analysis I: Foundations of <br> Decision Analysis |
| POLISCI 356A | Formal Theory I: Game Theory for Political <br> Science |

Area E. Probability and Statistics
CS $228 \quad$ Probabilistic Graphical Models: Principles and Techniques
CS 246 Mining Massive Data Sets
MS\&E 121 Introduction to Stochastic Modeling
MS\&E 221 Stochastic Modeling
MS\&E 226 Fundamentals of Data Science: Prediction, Inference, Causality

| STATS 200 | Introduction to Statistical Inference |
| :--- | :--- |
| STATS 217 | Introduction to Stochastic Processes I |
| EE 276 | Information Theory |

7. Philosophical Foundations Level 1 3

Introductory Philosophy
Select one of the following:
$\begin{array}{ll}\text { ESF } 7 & \text { Education as Self-Fashioning: The } \\ & \text { Transformation of the Self }\end{array}$

| ESF 8 | Education as Self-Fashioning: Recognizing <br> the Self and Its Possibilities |
| :--- | :--- |
| OSPOXFRD 20 | (not offered this year) |
| PHIL 1 | Introduction to Philosophy |
| PHIL 2 | Introduction to Moral Philosophy |
| PHIL 20N | Philosophy of Artificial Intelligence |
| PHIL 60 | Introduction to Philosophy of Science |
| PHIL 70 | Introduction to political philosophy |
| PHIL 75C | (not offered this year) |
| PHIL 82T | Philosophy of Cognitive Science |
| PHIL 102 | Modern Philosophy, Descartes to Kant |
| THINK 24 | Evil |
| THINK 56 | Health Care, Ethics, and Justice |
| All 3 of the following (must complete entire sequence): |  |

All 3 of the following (must complete entire sequence):
SLE 91 Structured Liberal Education
\& SLE 92 and Structured Liberal Education
\& SLE 93 and Structured Liberal Education
Other introductory courses taught in the Philosophy Department, if approved by the Program Director or Associate Director
8. Philosophical Foundations Level 2 5

Writing in the Major (WIM)
PHIL $80 \quad$ Mind, Matter, and Meaning 5
9. Philosophical Foundations Level 3 4

Select one of the following advanced undergraduate course in metaphysics/epistemology (post-PHIL 80):

| PHIL 106A | (not offered this year) |
| :--- | :--- |
| PHIL 107B | Plato's Later Metaphysics and <br> Epistemology |
| PHIL 167D | Philosophy of Neuroscience |
| PHIL 173B | Metaethics |
| PHIL 175 | Philosophy of Law |
| PHIL 180 | Metaphysics |
| PHIL 180A | Realism, Anti-Realism, Irrealism, Quasi- <br> Realism |
| PHIL 181 | Philosophy of Language |
| PHIL 182 | Advanced Philosophy of Language |
| PHIL 182A | Naturalizing Representation |
| PHIL 184 | Topics in Epistemology |
| PHIL 186 | Philosophy of Mind |
| PHIL 187 | Philosophy of Action |
| PHIL 189G | Fine-Tuning Arguments for God's Existence |
| Note: Symbolic Systems majors must take PHIL 182 for 3 or more |  |
| units. | 180 |
| 10. Cognition and | Neuroscience |
| Introductory Cognition and Neuroscience |  |
| Select one of the following: |  |
| PSYCH 30 | Introduction to Perception |
| PSYCH 45 | Introduction to Learning and Memory |
| PSYCH 50 | Introduction to Cognitive Neuroscience |
| PSYCH 141 | Cognitive Development |

An additional undergraduate course in cognition and/or neurosciences
Select one of the following:

| BIO 150 | Human Behavioral Biology |
| :--- | :--- |
| HUMBIO 3B | Environmental and Health Policy Analysis |
| PSYCH 30 | Introduction to Perception |
| PSYCH 45 | Introduction to Learning and Memory |
| PSYCH 50 | Introduction to Cognitive Neuroscience |
| PSYCH 60 | Introduction to Developmental Psychology |
| PSYCH 60B | (no longer offered) |
| PSYCH 70 | Self and Society: Introduction to Social <br>  <br> Psychology |
| PSYCH 80 | Introduction to Personality and Affective <br> Science |
| PSYC 124 | Cellular Neuroscience: Cell Signaling and |
| PSYCH 140 | Behavior |
| PSYCH 141 | Introduction to Psycholinguistics |
| PSYCH 154 | Judgmentive Development |
| THINK 15 | How Does Your Brain Work? |

11. Natural Language

Linguistic Dynamics: Language Processing, Learning, Variation, and Change
Select one of the following:

| LINGUIST 1 | Introduction to Linguistics |
| :---: | :---: |
| LINGUIST 52N | Spoken Sexuality: Language and the Social Construction of Sexuality |
| LINGUIST 61 S | Language Evolution and Change |
| LINGUIST 67S | The Role of Language in Perception and Cognition |
| LINGUIST 140 | Learning to Speak: An Introduction to Child Language Acquisition |
| LINGUIST 150 | Language and Society |
| LINGUIST 152 | Sociolinguistics and Pidgin Creole Studies |
| LINGUIST 156 | Language, Gender, \& Sexuality |
| LINGUIST 157 | Sociophonetics |
| LINGUIST 159 | American Dialects |
| LINGUIST 160 | Introduction to Language Change |
| PSYCH 140 | Introduction to Psycholinguistics |
| Linguistic Theory |  |
| Select one of the following: |  |
| LINGUIST 21 N | Linguistic Diversity and Universals: The Principles of Language Structure |
| LINGUIST 105 | Phonetics |
| LINGUIST 110 | Introduction to Phonology |
| LINGUIST 112 | Seminar in Phonology: Stress, Tone, and Accent |
| LINGUIST 120 | Introduction to Syntax |
| LINGUIST 121A | The Syntax of English |
| LINGUIST 121B | Crosslinguistic Syntax |
| LINGUIST 130A/230A | Introduction to Semantics and Pragmatics |
| LINGUIST 130B | Introduction to Lexical Semantics |
| LINGUIST 272 | Structure of Finnish |
| LINGUIST 281 | Computational Models of Linguistic Formalism |

12. Computation and Cognition

1-5
A course applying core technical skills to cognition

NOTE: Students Concentrating in Artificial Intelligence must take CS 221 to fulfill this requirement. Students in other concentrations can select one of the following:

| CS 131 | Computer Vision: Foundations and Applications |
| :---: | :---: |
| CS 221 | Artificial Intelligence: Principles and Techniques |
| CS 228 | Probabilistic Graphical Models: Principles and Techniques |
| CS 229 | Machine Learning |
| CS 230 | Deep Learning |
| CS 231A | Computer Vision: From 3D Reconstruction to Recognition |
| CS 379C | Computational Models of the Neocortex |
| EE 104 | Introduction to Machine Learning |
| LINGUIST 180/ CS 124 | From Languages to Information |
| LINGUIST 182 | (no longer offered) |
| NENS 220 | Computational Neuroscience |
| PHIL 356C | Logic and Artificial Intelligence |
| PSYCH 109 | An introduction to computation and cognition |
| PSYCH 204 | Computation and Cognition: The Probabilistic Approach |
| PSYCH 209 | Neural Network Models of Cognition |
| PSYCH 242 | Theoretical Neuroscience |
| PSYCH 249 | Large-Scale Neural Network Modeling for Neuroscience |
| 13. Advanced Sma | Seminar ${ }^{3}$ 2-3 |
| An upper-division, from other course | ited-enrollment seminar drawing on material the core. |
| Total enrollment m approved as fulfillin A course taken to f toward another req student's concentr | t not exceed 20 students for a course to be the Advanced Small Seminar Requirement. ill this requirement can also be counted rement, as part of either the core or a on, but not both. |
| 14. Concentration | 15-25 |
| See concentration | eas below. |
| Total Units | 75-90 |
| The following are optional but recommended and may be required for some higher level courses: <br> - Additional courses in the Math 50 series <br> - MATH 52 Integral Calculus of Several Variables <br> - MATH 53 Ordinary Differential Equations with Linear Algebra <br> - Or additional courses in the CME 100 series <br> - CME 102 Ordinary Differential Equations for Engineers (same as ENGR 155A) <br> - CME 104 Linear Algebra and Partial Differential Equations for Engineers (same as ENGR 155B) <br> - Or additional courses in the Math 60 CM series <br> - MATH 62CM Modern Mathematics: Continuous Methods <br> - MATH 63CM Modern Mathematics: Continuous Methods |  |
| 2 Two courses ch or different are Students conce take CS 107 or particular cour | sen from the list below (from either the same , appropriate to a student's concentration. rating in $\mathrm{HCl}, \mathrm{Al}$, or Computer Music must 107E. Other concentrations may also restrict the that can be taken to fulfill this requirement. |

3 Courses listed under Symbolic Systems Program offerings with numbers from SYMSYS 200 through 209 are acceptable, as are other courses as listed in the Advanced Small Seminar section of the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesmajor-requirements/symsys-major-core-courses/).

## Concentration Areas

In addition to the core requirements listed above, the Symbolic Systems major requires each student to complete a concentration area consisting of five courses that are thematically related to each other. Students select concentrations from the list below or design others in consultation with their advisers. The concentration area is declared on Axess as a subplan; it appears on the transcript but not on the diploma.

Note: A course may not count toward both a core and a concentration requirement, unless it is applied to the Advanced Small Seminar area within the core. A course that is applied to the Advanced Small Seminar requirement may also be counted toward a student's concentration or toward another core requirement, if appropriate, but not to both.

The following are lists of courses in each concentration. Each concentration listed below has a link to detailed requirements on the Symbolic Systems website.

## Applied Logic

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/applied-logic-al-concentration/).

|  |  | nits |
| :---: | :---: | :---: |
| Introductory Requirements |  |  |
| CS 154 | Introduction to the Theory of Computation | 3-4 |
| PHIL 151 | Metalogic | 4 |
| PHIL 152 | Computability and Logic | 4 |
| Computational |  | 3 |
| Select one of the following: |  |  |
| CS 151 | Logic Programming |  |
| CS 157 | Computational Logic |  |
| Set Theory |  | 3 |
| MATH 161 | Set Theory | 3 |
| Formal Semantics |  | 3-4 |
| Select one of the following: |  |  |
| LINGUIST 130A | Introduction to Semantics and Pragmatics |  |
| LINGUIST 230B | Advanced Semantics |  |
| LINGUIST 230C | Advanced Topics in Semantics \& Pragmatics |  |
| PHIL 154 | Modal Logic |  |
| Advanced |  | 6-8 |
| Select two of the following: |  |  |
| PHIL 156A | Modal Logics - A Modern Perspective |  |
| PHIL 159 | Non-Classical Logic |  |
| PHIL 188W | Paradoxes |  |
| PHIL 351 | Representation Theorems |  |
| PHIL 351B | Proof Mining |  |
| PHIL 351C | Formal Methods in Ethics |  |
| PHIL 351D | Measurement Theory |  |
| PHIL 353 | Seminar on Philosophy of Logic and Mathematics |  |
| PHIL 356 | Applications of Modal Logic |  |
| PHIL 356C | Logic and Artificial Intelligence |  |
| PHIL 357 | Research Seminar on Logic and Cognition |  |
| PHIL 359 | Topics in Logic, Information and Agency |  |

PHIL 391 Seminar on Logic \& Formal Philosophy
Note: PHIL 359 counts only if taken for 3 or more units, in accordance with the policy for all core courses.

## Total Units

15-18

## Artificial Intelligence

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/artificial-intelligence-ai-concentration/).

Select five courses from the following six areas: ${ }^{1} \quad$ Units

| Knowledge Representation and Reasoning |  |
| :--- | :--- |
| CS 151 | Logic Programming |
| CS 157 | Computational Logic |
| CS 228 | Probabilistic Graphical Models: Principles <br> and Techniques |
| CS 238 | Decision Making under Uncertainty |
| PHIL 154 | Modal Logic |


| Natural Language Processing |  |
| :--- | :--- |
| CS 124 | From Languages to Information |
| CS 224N | Natural Language Processing with Deep <br> Learning |
| CS 224S | Spoken Language Processing <br> CS 224U |
| CS 276 | Information Retrieval and Web Search |
| SYMSYS 112 | Challenges for Language Systems |
| Learning | Hardware Accelerators for Machine |
| CS 217 | Learning |
| CS 224W | Machine Learning with Graphs |
| CS 229 | Machine Learning |
| CS 230 | Deep Learning |
| CS 234 | Reinforcement Learning |
| CS 236 | Deep Generative Models |
| CS 246 | Mining Massive Data Sets |
| CS 325B | Data for Sustainable Development |
| EE 104 | Introduction to Machine Learning |
| MS\&E 234 | Data Privacy and Ethics |
| PSYCH 204 | Computation and Cognition: The <br> Probabilistic Approach |
| STATS 315A | Modern Applied Statistics: Learning |
| STATS 315B | Modern Applied Statistics: Data Mining |

Robotics and Vision

| CS 131 | Computer Vision: Foundations and <br> Applications |
| :--- | :--- |
| CS 148 | Introduction to Computer Graphics and <br> Imaging |
| CS 223A | Introduction to Robotics |
| CS 225A | Experimental Robotics <br> Computer Vision: From 3D Reconstruction <br> to Recognition |
| CS 231N | Convolutional Neural Networks for Visual <br> Recognition |
| CS 234 | Reinforcement Learning <br> CS 331BRepresentation Learning in Computer <br> Vision |
| CS 333 | Algorithms for Interactive Robotics |
| CS 348K | Visual Computing Systems |


| PSYCH 250 | High-level Vision: From Neurons to Deep Neural Networks |
| :---: | :---: |
| Additional Topics |  |
| BIOMEDIN 210 | Modeling Biomedical Systems |
| BIOMEDIN 214 | Representations and Algorithms for Computational Molecular Biology |
| CS 227B | General Game Playing |
| LAW 4039 | Regulating Artificial Intelligence |
| MS\&E 135 | Networks |
| MUSIC 220B | Compositional Algorithms, Psychoacoustics, and Computational Music |
| MUSIC 220C | Research Seminar in Computer-Generated Music |
| PHIL 20N | Philosophy of Artificial Intelligence |
| PHIL 153L | Computing Machines and Intelligence |
| PHIL 356C | Logic and Artificial Intelligence |
| PHIL 357 | Research Seminar on Logic and Cognition |
| PSYCH 247 | Topics in Natural and Artificial Intelligence |
| SYMSYS 207 | Conceptual Issues in Cognitive Science |
| SYMSYS 208 | Computer Machines and Intelligence |
| SYMSYS 275 | Collective Behavior and Distributed Intelligence |
| Mathematical Foundations |  |
| CME 263 | Introduction to Linear Dynamical Systems |
| CS 154 | Introduction to the Theory of Computation |
| CS 161 | Design and Analysis of Algorithms |
| CS 168 | The Modern Algorithmic Toolbox |
| CS 205L | Continuous Mathematical Methods with an Emphasis on Machine Learning |
| ECON 160 | Game Theory and Economic Applications |
| EE 263 | Introduction to Linear Dynamical Systems |
| EE 276 | Information Theory |
| EE 364A | Convex Optimization I |
| EE 364B | Convex Optimization II |
| ENGR 205 | Introduction to Control Design Techniques |
| ENGR 209A | Analysis and Control of Nonlinear Systems |
| MATH 104 | Applied Matrix Theory |
| MATH 113 | Linear Algebra and Matrix Theory |
| MS\&E 251 | Introduction to Stochastic Control with Applications |
| PHIL 152 | Computability and Logic |
| Total Units |  |

1 Three of the five courses must be chosen from the list below in at least two areas:

1. Knowledge representation and reasoning: CS 228 (https:// explorecourses.stanford.edu/search/?view=catalog\&filter-coursestatusActive=on\&page=0\&catalog=\&academicYear=\&q=cs228\&collapse=), CS 238 (https://explorecourses.stanford.edu/
search/?view=catalog\&filter-coursestatus-
Active=on\&page=0\&catalog=\&academicYear=\&q=cs238\&collapse=)
2. Natural language processing: CS 224 N (https://
explorecourses.stanford.edu/search/?view=catalog\&filter-coursestatus-
Active=on\&page=0\&catalog=\&academicYear=\&q=cs224n\&collapse=), CS 224S (https://explorecourses.stanford.edu/
search/?view=catalog\&filter-coursestatus-
Active=on\&page=0\&catalog=\&academicYear=\&q=cs224s\&collapse=), CS 224 U (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatusActive=on\&page=0\&catalog=\&academicYear=\&q=cs224u\&collapse=)
3. Learning: CS 224W (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatusActive=on\&page=0\&catalog=\&academicYear=\&q=cs224w\&collapse=), CS 229 (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatusActive=on\&page=0\&catalog=\&academicYear=\&q=cs229\&collapse=), CS 234 (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatusActive=on\&page=0\&catalog=\&academicYear=\&q=cs234\&collapse=)
4. Robotics and vision: CS 131 (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatusActive=on\&page=0\&catalog=\&academicYear=\&q=cs131\&collapse=), CS 223A (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatus-
Active=on\&page=0\&catalog=\&academic Year=\&q=cs223a\&collapse=), CS231A (https://explorecourses.stanford.edu/
search/?view=catalog\&filter-coursestatus-
Active=on\&page=0\&catalog=\&academicYear=\&q=cs231a\&collapse=), CS 231N (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatus-
Active=on\&page=0\&catalog=\&academicYear=\&q=cs231n\&collapse=), CS 234 (https://explorecourses.stanford.edu/ search/?view=catalog\&filter-coursestatus-
Active $=$ on\&page $=0 \&$ catalog $=\&$ academic Year $=\& q=$ cs234\&collapse $=$ )

## Cognitive Science

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/cognitive-science-cogsci-concentration/).

|  |  | Units |
| :--- | :--- | ---: |
| Cognitive Neuroscience | 3-4 |  |
| Select one of the following: |  |  |
| PSYCH 30 | Introduction to Perception |  |
| PSYCH 45 | Introduction to Learning and Memory |  |
| PSYCH 50 | Introduction to Cognitive Neuroscience |  |
| PSYCH 162 | Brain Networks |  |
| PSYCH 164 | Brain decoding | $\mathbf{3 - 5}$ |
| PSYCH 202 | Cognitive Neuroscience |  |
| Empirical Methods |  |  |

Select one of the following:

| COMM 106 | Communication Research Methods |
| :--- | :--- |
| EE 104 | Introduction to Machine Learning |
| MS\&E 231 | Introduction to Computational Social <br> Science |
| PSYCH 204A | Human Neuroimaging Methods |
| PSYCH 251 | Experimental Methods |
| PSYCH 252 | Statistical Methods for Behavioral and <br>  <br> Social Sciences |
| PSYCH 253 | Advanced Statistical Modeling |
| STATS 101 | Data Science 101 |
| STATS 191 | Introduction to Applied Statistics |
| STATS 200 | Introduction to Statistical Inference |
| STATS 263 | Design of Experiments |

Three additional courses chosen across and/or within the following five areas:

## Language

| CS 224N | Natural Language Processing with Deep Learning |
| :---: | :---: |
| LINGUIST 110 | Introduction to Phonology |
| LINGUIST 140 | Learning to Speak: An Introduction to Child Language Acquisition |
| LINGUIST 180 | From Languages to Information |
| LINGUIST 236 | Seminar in Semantics: Conditionals |
| LINGUIST 248 | Seminar in Developmental Psycholinguistics |
| PHIL 181 | Philosophy of Language |
| PHIL 194D | Capstone Seminar: Artificial Intelligence |
| PHIL 194K | Slurs and Derogation: Semantic, Pragmatic and Ethical Perspectives |
| PHIL 348 | Evolution of Signalling |
| PHIL 385D | Advanced Topics in Philosophy of Language |
| PSYCH 132 | Language and Thought |
| PSYCH 140 | Introduction to Psycholinguistics |
| SYMSYS 112 | Challenges for Language Systems |
| Perception |  |
| CS 131 | Computer Vision: Foundations and Applications |
| CS 231A | Computer Vision: From 3D Reconstruction to Recognition |
| LINGUIST 105 | Phonetics |
| MUSIC 251 | Psychophysics and Music Cognition |
| PSYCH 30 | Introduction to Perception |
| PSYCH 221 | Image Systems Engineering |
| PSYCH 250 | High-level Vision: From Neurons to Deep Neural Networks |

Higher Cognition
COMM 108
COMM 322

CS 229
EDUC 368

EE 104
PHIL 182A
PHIL 183
PHIL 184
PHIL 185

PHIL 186
PHIL 187
PHIL 194A
PHIL 386
PHIL 388
PSYCH 45
PSYCH 70 Self and Society: Introduction to Socia Psychology
PSYCH 75 Introduction to Cultural Psychology
PSYCH 141 Cognitive Development
PSYCH 154 Judgment and Decision-Making
PSYCH 160 Seminar on Emotion
PSYCH 169 Advanced Seminar on Memory

| PSYCH 175 | Social Cognition and Learning in Early Childhood |
| :---: | :---: |
| PSYCH 205 | Foundations of Cognition |
| PSYCH 266 | Current Debates in Learning and Memory |
| PSYCH 285 | Graduate Seminar on Theory of Mind |
| SYMSYS 203 | Cognitive Science Perspectives on Humanity and Well-Being |
| Neuroscience |  |
| BIO 150 | Human Behavioral Biology |
| CS 234 | Reinforcement Learning |
| EDUC 266 | Educational Neuroscience |
| MUSIC 257 | Neuroplasticity and Musical Gaming |
| NBIO 101 | Social and Ethical Issues in the Neurosciences |
| NBIO 206 | The Nervous System |
| NBIO 258 | Information and Signaling Mechanisms in Neurons and Circuits |
| PHIL 167D | Philosophy of Neuroscience |
| PHIL 360 | Grad Seminar: Philosophy of Neuroscience |
| PSYCH 162 | Brain Networks |
| PSYCH 164 | Brain decoding |
| PSYCH 202 | Cognitive Neuroscience |
| PSYCH 204A | Human Neuroimaging Methods |
| PSYCH 204B | Computational Neuroimaging |
| PSYCH 209 | Neural Network Models of Cognition |
| PSYCH 232 | Brain and Decision |
| PSYCH 248A | fMRI Analysis Bootcamp |
| PSYCH 249 | Large-Scale Neural Network Modeling for Neuroscience |
| PSYCH 251 | Experimental Methods |
| PSYCH 254 | Affective Neuroscience |
| PSYCH 287 | Brain Machine Interfaces: Science, Technology, and Application |
| Theoretical Foundations |  |
| CS 154 | Introduction to the Theory of Computation |
| ECON 160 | Game Theory and Economic Applications |
| EE 276 | Information Theory |
| MATH 113 | Linear Algebra and Matrix Theory |
| PHIL 82T | Philosophy of Cognitive Science |
| PHIL 152 | Computability and Logic |
| PHIL 153L | Computing Machines and Intelligence |
| PHIL 154 | Modal Logic |
| PHIL 351D | Measurement Theory |
| PHIL 356C | Logic and Artificial Intelligence |
| PHIL 357 | Research Seminar on Logic and Cognition |
| PSYCH 204 | Computation and Cognition: The Probabilistic Approach |
| PSYCH 247 | Topics in Natural and Artificial Intelligence |
| SYMSYS 202 | Theories of Consciousness |
| SYMSYS 207 | Conceptual Issues in Cognitive Science |
| SYMSYS 208 | Computer Machines and Intelligence |
| Total Units |  |

## Computer Music

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/computer-music-cm-concentration/).

|  |  | Units |
| :---: | :---: | :---: |
| Music Fundamentals |  | 6-8 |
| MUSIC 220A | Fundamentals of Computer-Generated Sound | 2-4 |
| MUSIC 220B | Compositional Algorithms, Psychoacoustics, and Computational Music | 2-4 |
| Music and the Mind \& Brain |  | 3-5 |
| Select one of the following: |  |  |
| MUSIC 1A | Music, Mind, and Human Behavior |  |
| MUSIC 251 | Psychophysics and Music Cognition |  |
| MUSIC 351A | Seminar in Music Perception and Cognition I |  |
| PSYCH 30 | Introduction to Perception |  |
| PSYCH 50 | Introduction to Cognitive Neuroscience |  |
| Music HCI/Design |  | 3-5 |
| Select one of the following: |  |  |
| CS 147 | Introduction to Human-Computer Interaction Design |  |
| MUSIC 128 | Stanford Laptop Orchestra: Composition, Coding, and Performance |  |
| MUSIC 250A | Physical Interaction Design for Music |  |
| MUSIC 256A | Music, Computing, Design: The Art of Design |  |
| Advanced Research Topics/Electives |  | 3-5 |
| Select one of the following: |  |  |
| CS 108 | Object-Oriented Systems Design |  |
| LINGUIST 105 | Phonetics |  |
| LINGUIST 110 | Introduction to Phonology |  |
| MUSIC 220C | Research Seminar in Computer-Generated Music |  |
| MUSIC 222 | Sound in Space |  |
| MUSIC 253 | Symbolic Musical Information |  |
| MUSIC 254 | Computational Music Analysis |  |
| MUSIC 256B | Music, Computing, Design II: Virtual and Augmented Reality for Music |  |
| MUSIC 257 | Neuroplasticity and Musical Gaming |  |
| Total Units |  | 15-23 |

## Decision Making and Rationality

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/decision-making-and-rationality-dmrconcentration/).

Select five courses, including at least one course from each of the \begin{tabular}{r}
Units <br>
15-25 <br>
first four areas: <br>
Philosophical Inquiry <br>
Select one of the following: <br>

| MS\&E 234 | Data Privacy and Ethics |
| :--- | :--- |
| MS\&E 254 | The Ethical Analyst |
| PHIL 164 | Central Topics in the Philosophy of <br> Science: Theory and Evidence |
| PHIL 166 | Probability: Ten Great Ideas About Chance |
| PHIL 169 | Evolution of the Social Contract |
| PHIL 170 | Ethical Theory |
| PHIL 171 | Justice |
| PHIL 172 | History of Modern Moral Philosophy |
| PHIL 184 | Topics in Epistemology |


 

\end{tabular}

| PHIL 187 | Philosophy of Action |
| :--- | :--- |
| PHIL 194M | Capstone Seminar: Consequences for <br> Ethics |
| PHIL 359 | Topics in Logic, Information and Agency |
| PHIL 377 | Social Agency |
| PHIL 386 | Truth as the aim of belief and inquiry <br> PHIL 388 |
| Topics in Normativity |  |

Note: PHIL 359 counts only if taken for 3 or more units, in accordance with the policy for all core courses.
Empirical Findings and Explanations
Select one of the following:

| BIO 150 | Human Behavioral Biology |
| :--- | :--- |
| COMM 172 | Media Psychology |
| ECON 178 | Behavioral Economics |
| ECON 179 | Experimental Economics |
| ECON 279 | Behavioral and Experimental Economics II |
| GSBGEN 646 | Behavioral Economics and the Psychology <br> of Decision Making |
| MS\&E 389 | Seminar on Organizational Theory |
| POLISCI 351B | Economic Analysis of Political Institutions |
| POLISCI 351C | Institutions and Bridge-Building in Political <br> Economy |
| PSYCH 45 | Introduction to Learning and Memory |
| PSYCH 50 | Introduction to Cognitive Neuroscience |
| PSYCH 70 | Self and Society: Introduction to Social <br> Psychology |
| PSYCH 75 | Introduction to Cultural Psychology |
| PSYCH 80 | Introduction to Personality and Affective |
| PSYCH 154 | Science |
| PSYCH 160 | Seminar on Emotion |


| PSYCH 205 | Foundations of Cognition |
| :---: | :---: |
| PSYCH 212 | Classic and contemporary social psychology research |
| PSYCH 215 | Mind, Culture, and Society |
| PSYCH 223 | Social Norms |
| PSYCH 232 | Brain and Decision |
| PSYCH 251 | Experimental Methods |
| PSYCH 270 | The Self: Representations and Interventions |
| SOC 114 | Economic Sociology |
| SOC 115 | Topics in Economic Sociology |
| SOC 120 | Interpersonal Relations |
| SOC 126 | Introduction to Social Networks |
| SYMSYS 203 | Cognitive Science Perspectives on Humanity and Well-Being |
| SYMSYS 275 | Collective Behavior and Distributed Intelligence |
| Practical Tools and Applications |  |
| Select one of the following: |  |
| CEE 206 | Decision Analysis for Civil and Environmental Engineers |
| CS 181 | Computers, Ethics, and Public Policy |
| CS 182 | Ethics, Public Policy, and Technological Change |
| CS 228 | Probabilistic Graphical Models: Principles and Techniques |
| CS 238 | Decision Making under Uncertainty |
| CS 239 | Advanced Topics in Sequential Decision Making |
| CS 325B | Data for Sustainable Development |
| ECON 135 | Foundations of Finance |
| ECON 136 | Market Design |
| ECON 137 | Decision Modeling and Information |
| ECON 141 | Public Finance and Fiscal Policy |
| ECON 150 | Economic Policy Analysis |
| ECON 155 | Environmental Economics and Policy |
| ECON 162 | Games Developing Nations Play |
| ECON 247 | Labor Economics II |
| MS\&E 152 | Introduction to Decision Analysis |
| MS\&E 180 | Organizations: Theory and Management |
| MS\&E 250A | Engineering Risk Analysis |
| MS\&E 250B | Project Course in Engineering Risk Analysis |
| MS\&E 251 | Introduction to Stochastic Control with Applications |
| MS\&E 252 | Decision Analysis I: Foundations of Decision Analysis |
| MS\&E 352 | Decision Analysis II: Professional Decision Analysis |
| MS\&E 353 | Decision Analysis III: Frontiers of Decision Analysis |
| MS\&E 355 | Influence Diagrams and Probabilistics Networks |
| POLISCI 152 | Introduction to Game Theoretic Methods in Political Science |
| POLISCI 153 | Thinking Strategically |
| SYMSYS 201 | Digital Technology, Society, and Democracy |
| SYMSYS 271 | Group Democracy |
| SYMSYS 275 | Collective Behavior and Distributed Intelligence |


| URBANST 132 | Concepts and Analytic Skills for the Social Sector |
| :---: | :---: |
| Methodological Foundations |  |
| BIOMEDIN 251 | Outcomes Analysis |
| COMM 106 | Communication Research Methods |
| CS 147 | Introduction to Human-Computer Interaction Design |
| CS 154 | Introduction to the Theory of Computation |
| CS 161 | Design and Analysis of Algorithms |
| CS 234 | Reinforcement Learning |
| CS 261 | Optimization and Algorithmic Paradigms |
| ECON 50 | Economic Analysis I |
| ECON 102B | Applied Econometrics |
| ECON 102C | Advanced Topics in Econometrics |
| ENGR 62 | Introduction to Optimization |
| MS\&E 120 | Introduction to Probability |
| MS\&E 121 | Introduction to Stochastic Modeling |
| MS\&E 231 | Introduction to Computational Social Science |
| PHIL 49 | Survey of Formal Methods |
| PSYCH 251 | Experimental Methods |
| PSYCH 252 | Statistical Methods for Behavioral and Social Sciences |
| PSYCH 253 | Advanced Statistical Modeling |
| STATS 200 | Introduction to Statistical Inference |
| STATS 211 | Meta-research: Appraising Research Findings, Bias, and Meta-analysis |
| STATS 217 | Introduction to Stochastic Processes I |
| STATS 218 | Introduction to Stochastic Processes II |
| STATS 263 | Design of Experiments |
| STATS 310A | Theory of Probability I |
| STATS 310B | Theory of Probability II |
| STATS 310C | Theory of Probability III |
| Total Units |  |

## Human-Computer Interaction

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/human-computer-interaction-hciconcentration/).

| HCl Introduction |  | Units 3-5 |
| :---: | :---: | :---: |
|  |  |  |
| CS 147 | Introduction to Human-Computer Interaction Design | 3-5 |
| $\mathrm{HCl}-$ Project-Based | urses | 3-4 |
| Select one of the following: |  |  |
| CS 194H | User Interface Design Project |  |
| CS 247A | Design for Artificial Intelligence |  |
| CS 247B | Design for Behavior Change |  |
| CS 247G | Introduction to Game Design |  |
| CS 2471 | Design for Understanding |  |
| CS 247S | Service Design |  |
| CS 278 | Social Computing |  |
| CS 347 | Human-Computer Interaction: Foundations and Frontiers |  |
| CS 377E | Designing Solutions to Global Grand Challenges |  |
| CS 377G | Designing Serious Games |  |
| CS 377Q | Designing for Accessibility |  |


| CS 377U | Understanding Users |
| :--- | :--- |
| CS 448B | Data Visualization |
| EDUC 230 | Learning Experience Design |
| EDUC 302 | Behavior Design: Clubhouse for Helping <br> People with Good Habits \& Behavior <br> Change |
| EDUC 303 | Designing Learning Spaces |
| EDUC 391 | Engineering Education and Online Learning <br> ENGR 110 <br> (ENGR 110) |
| MED 275B | Biodesign Fundamentals <br> SOC 167VP |
| Justice + Poverty Innovation:Create new <br> solutions for people to navigate housing, <br> medical, \& debt |  |

HCl Social and Psychological Aspects
Select one of the following:

| COMM 1 | Introduction to Communication |
| :---: | :---: |
| COMM 1B | Media, Culture, and Society |
| COMM 120W | The Rise of Digital Culture |
| COMM 145 | Personality and Digital Media |
| COMM 166 | Virtual People |
| COMM 172 | Media Psychology |
| COMM 322 | Advanced Studies in Behavior and Social Media |
| COMM 326 | Advanced Topics in Human Virtual Representation |
| CS 80Q | Race and Gender in Silicon Valley |
| CS 181W | Computers, Ethics, and Public Policy |
| EDUC 281 | Technology for Learners |
| EDUC 328 | Topics in Learning and Technology: Core Mechanics for Learning |
| EDUC 342 | Child Development and New Technologies |
| ME 115A | Introduction to Human Values in Design |
| MS\&E 135 | Networks |
| MS\&E 234 | Data Privacy and Ethics |
| PSYCH 70 | Self and Society: Introduction to Social Psychology |
| STS 1 | The Public Life of Science and Technology |
| SYMSYS 201 | Digital Technology, Society, and Democracy |
| SYMSYS 245 | Cognition in Interaction Design |
| SYMSYS 255 | Building Digital History: Informatics of Social Movements and Protest |
| SYMSYS 275 | Collective Behavior and Distributed Intelligence |

HCl Programming
Select one of the following:

| CS 108 | Object-Oriented Systems Design |
| :--- | :--- |
| CS 142 | Web Applications |
| CS 148 | Introduction to Computer Graphics and <br> Imaging |
| LINGUIST 180 | From Languages to Information |
| HCI Empirical Methods | $\mathbf{3 - 5}$ |

HCl Empirical Methods
Select one of the following:

| COMM 106 | Communication Research Methods |
| :--- | :--- |
| CS 347 | Human-Computer Interaction: Foundations <br> and Frontiers |
| CS 377U | Understanding Users |
| EDUC 407 | Lytics Seminar |
| EDUC 423 | Introduction to Data Science |


| ENGR 150 | Data Challenge Lab |
| :--- | :--- |
| HUMBIO 82A | Qualitative Research Methodology |
| ME 341 | Design Experiments |
| MED 147 | Methods in Community Assessment, <br> Evaluation, and Research |
| MS\&E 125 | Introduction to Applied Statistics |
| PSYCH 251 | Experimental Methods |
| PSYCH 252 | Statistical Methods for Behavioral and |
| Social Sciences |  |
| STATS 101 | Data Science 101 |
| STATS 191 | Introduction to Applied Statistics |
| STATS 200 202 | Introduction to Statistical Inference |
| STATS 263 | Data Mining and Analysis |
| Total Units | Design of Experiments |

## Learning

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/learning-concentration/). Select five courses from at least two of the following three areas: $\quad 15-25$

| Computational Lea |  |
| :---: | :---: |
| CS 205L | Continuous Mathematical Methods with an Emphasis on Machine Learning |
| CS 224N | Natural Language Processing with Deep Learning |
| CS 228 | Probabilistic Graphical Models: Principles and Techniques |
| CS 229 | Machine Learning |
| CS 234 | Reinforcement Learning |
| CS 236 | Deep Generative Models |
| CS 325B | Data for Sustainable Development |
| EE 104 | Introduction to Machine Learning |
| EE 276 | Information Theory |
| MS\&E 234 | Data Privacy and Ethics |
| PSYCH 204 | Computation and Cognition: The Probabilistic Approach |
| STATS 101 | Data Science 101 |
| STATS 315A | Modern Applied Statistics: Learning |
| STATS 315B | Modern Applied Statistics: Data Mining |
| Human Learning |  |
| EDUC 101 | Introduction to Teaching and Learning |
| EDUC 115N | How to Learn Mathematics |
| EDUC 218 | Topics in Cognition and Learning: Technology and Multitasking |
| EDUC 266 | Educational Neuroscience |
| EDUC 368 | Cognitive Development in Childhood and Adolescence |
| LINGUIST 140 | Learning to Speak: An Introduction to Child Language Acquisition |
| LINGUIST 248 | Seminar in Developmental Psycholinguistics |
| PSYCH 45 | Introduction to Learning and Memory |
| PSYCH 50 | Introduction to Cognitive Neuroscience |
| PSYCH 60 | Introduction to Developmental Psychology |
| PSYCH 141 | Cognitive Development |
| PSYCH 145 | Seminar on Infant Development |
| PSYCH 169 | Advanced Seminar on Memory |


| PSYCH 202 | Cognitive Neuroscience |
| :--- | :--- |
| PSYCH 204 | Computation and Cognition: The <br> Probabilistic Approach |
| PSYCH 251 | Experimental Methods |
| PSYCH 265 | Social Psychology and Social Change |
| PSYCH 266 | Current Debates in Learning and Memory |



Total Units
15-25

## Natural Language

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/natural-language-nl-concentration/).

|  | Units |
| :--- | :--- |
| Select five courses from three or four of the following seven | $15-21$ | areas:


| Mathematical/Computational Foundations |  |
| :--- | :--- |
| CS 154 | Introduction to the Theory of Computation |
| CS 221 | Artificial Intelligence: Principles and <br> Techniques |
| CS 229 | Machine Learning |
| PHIL 154 | Modal Logic |
| PSYCH 204 | Computation and Cognition: The <br> Probabilistic Approach |
| PSYCH 209 | Neural Network Models of Cognition |
| PSYCH 251 | Experimental Methods |
| PSYCH 254 | Affective Neuroscience |
| Computational Linguistics |  |
| CS 124 | From Languages to Information |
| CS 224N | Natural Language Processing with Deep <br> Learning |
| CS 224S | Spoken Language Processing |
| CS 224U | Natural Language Understanding |
| CS 276 | Information Retrieval and Web Search |

PSYCH $290 \quad$ Natural Language Processing \& Text-Based Machine Learning in the Social Sciences
SYMSYS 112 Challenges for Language Systems
Phonetics/Phonology/Speech

| LINGUIST 105 | Phonetics |
| :--- | :--- |
| LINGUIST 110 | Introduction to Phonology |
| LINGUIST 112 | Seminar in Phonology: Stress, Tone, and <br> Accent |
| LINGUIST 157 | Sociophonetics |
| LINGUIST 205B | Advanced Phonetics |
| LINGUIST 207A | Advanced Phonetics |
| LINGUIST 210A | Phonology |
| LINGUIST 213 | Corpus Phonology |
| LINGUIST 260A | Historical Morphology and Phonology |
| Morphosyntax |  |
| LINGUIST 121A | The Syntax of English |
| LINGUIST 121B | Crosslinguistic Syntax |
| LINGUIST 217 | Morphosyntax |
| LINGUIST 222A | Foundations of Syntactic Theory I |
| LINGUIST 225D | Seminar in Syntax: Advanced Topics |
| LINGUIST 260B | Historical Morphosyntax |

Semantics/Pragmatics/Philosophy of Language
LINGUIST 130A Introduction to Semantics and Pragmatics
LINGUIST 130B Introduction to Lexical Semantics
LINGUIST 132 Lexical Semantic Typology
LINGUIST 230B Advanced Semantics
LINGUIST 230C Advanced Topics in Semantics \& Pragmatics
LINGUIST 232A Lexical Semantics
LINGUIST 236 Seminar in Semantics: Conditionals
PHIL 137 Wittgenstein
PHIL 181 Philosophy of Language
PHIL 182 Advanced Philosophy of Language
PHIL 182A Naturalizing Representation
PHIL 194D Capstone Seminar. Artificial Intelligence
PHIL 194K Slurs and Derogation: Semantic, Pragmatic and Ethical Perspectives
PHIL 348 Evolution of Signalling
PHIL 385D Advanced Topics in Philosophy of Language
SYMSYS 112 Challenges for Language Systems
Psycholinguistics
LINGUIST 140 Learning to Speak: An Introduction to Child Language Acquisition
LINGUIST 245B Methods in Psycholinguistics
LINGUIST 246 Foundations of Psycholinguistics
LINGUIST 248 Seminar in Developmental Psycholinguistics
PSYCH 132 Language and Thought
PSYCH 140 Introduction to Psycholinguistics
PSYCH $209 \quad$ Neural Network Models of Cognition
Sociolinguistics and Language Change
LINGUIST 65 African American Vernacular English
LINGUIST 116A Introduction to Word-Formation
LINGUIST 150 Language and Society
LINGUIST 150E Who Speaks Good English
LINGUIST 152 Sociolinguistics and Pidgin Creole Studies
LINGUIST 156 Language, Gender, \& Sexuality

| LINGUIST 157 | Sociophonetics |  |
| :--- | :--- | :--- |
| LINGUIST 159 | American Dialects |  |
| LINGUIST 168 | Introduction to Linguistic Typology |  |
| Total Units |  | $\mathbf{1 5 - 2 1}$ |

## Neurosciences

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/neurosciences-neuro-concentration/).

## Units

Select five courses, from at least three of the following six areas, $\quad 15-25$ and at least two of the five courses must be from the first two areas:

## Basic Neuroscience

Select at least one course from the following:

| BIO 84 | Physiology |
| :--- | :--- |
| BIO 86 | Cell Biology |
| BIO 150 | Human Behavioral Biology |
| BIO 151 | Mechanisms of Neuron Death |
| BIO 153 | Cellular Neuroscience: Cell Signaling and <br> Behavior |
| BIO 154 | Molecular and Cellular Neurobiology |
| HUMBIO 4A | The Human Organism |
| NBIO 206 | The Nervous System |
| NBIO 258 | Information and Signaling Mechanisms in <br> Neurons and Circuits |
| PSYCH 121 | Ion Transport and Intracellular Messengers |
| PSYCH 141 | Cognitive Development |
| PSYCH 205 | Foundations of Cognition |

Note: NBIO 206 is a 6 -unit course, which counts as two concentration courses, from areas 1 and 2.
Systems Neuroscience
Select at least one course from the following:

| BIO 158 | Developmental Neurobiology |
| :--- | :--- |
| BIO 222 | Exploring Neural Circuits |
| EDUC 266 | Educational Neuroscience |
| PSYC 124 | Brain Plasticity |
| PSYCH 30 | Introduction to Perception |
| PSYCH 45 | Introduction to Learning and Memory |
| PSYCH 50 | Introduction to Cognitive Neuroscience |
| PSYCH 162 | Brain Networks |
| PSYCH 169 | Advanced Seminar on Memory |
| PSYCH 232 | Brain and Decision |
| PSYCH 254 | Affective Neuroscience |
| PSYCH 266 | Current Debates in Learning and Memory |

Computational Approaches

| BIOE 101 | Systems Biology |
| :--- | :--- |
| CS 223A | Introduction to Robotics |
| CS 229 | Machine Learning |
| CS 379C | Computational Models of the Neocortex |
| EE 124 | Introduction to Neuroelectrical Engineering |
| MUSIC 257 | Neuroplasticity and Musical Gaming |
| PSYCH 164 | Brain decoding |
| PSYCH 204A | Human Neuroimaging Methods |
| PSYCH 204B | Computational Neuroimaging |
| PSYCH 209 | Neural Network Models of Cognition |
| PSYCH 249 | Large-Scale Neural Network Modeling for |
|  | Neuroscience |


| PSYCH 287 | Brain Machine Interfaces: Science, <br> Technology, and Application |
| :---: | :--- |
| Biological and Computational Approaches to Vision |  |
| CS 131 | Computer Vision: Foundations and <br> Applications |
| CS 231A | Computer Vision: From 3D Reconstruction <br> to Recognition |
| CS 231N | Convolutional Neural Networks for Visual <br> Recognition |
| PSYCH 30 | Introduction to Perception |
| PSYCH 221 | Image Systems Engineering <br> PSYCH 250 |
|  | Heural Networks |

Philosophical and Theoretical Approaches

| APPPHYS 293 | Theoretical Neuroscience |
| :--- | :--- |
| NBIO 101 | Social and Ethical Issues in the <br> Neurosciences |
| PHIL 167D | Philosophy of Neuroscience |
| PHIL 186 | Philosophy of Mind |
| PHIL 360 | Grad Seminar. Philosophy of Neuroscience |
| SYMSYS 202 | Theories of Consciousness |
| SYMSYS 207 | Conceptual Issues in Cognitive Science |

Methodological Foundations

| BIOE 291 | Principles and Practice of Optogenetics for <br> Optical Control of Biological Tissues |
| :--- | :--- |
| CS 205L | Continuous Mathematical Methods with an <br> Emphasis on Machine Learning |
| CS 448B | Data Visualization |
| EE 102A | Signal Processing and Linear Systems I |
| EE 102B | Signal Processing and Linear Systems II |
| EE 261 | The Fourier Transform and Its Applications |
| EE 263 | Introduction to Linear Dynamical Systems |
| MATH 113 | Linear Algebra and Matrix Theory |
| MS\&E 211 | Introduction to Optimization |
| PSYCH 10 | Introduction to Statistical Methods: |
| PSYCH 187 |  <br> Development |
| PSYCH 204A | Human Neuroimaging Methods |
| PSYCH 251 | Experimental Methods |
| PSYCH 252 | Statistical Methods for Behavioral and <br> Social Sciences |
| PSYCH 253 | Advanced Statistical Modeling |
| STATS 110 | Statistical Methods in Engineering and the <br> Physical Sciences |
| STATS 141 | Biostatistics  <br> STATS 191 Introduction to Applied Statistics <br> STATS 200 Introduction to Statistical Inference <br> Total Units  |

## Philosophical Foundations

See also the Symbolic Systems website (https://symsys.stanford.edu/ undergraduatesconcentrations/philosophical-foundationsconcentration/).

|  | Units |
| :--- | ---: |
| Area 1 | $7-8$ |
| Select two of the following: |  |
| PHIL $180 \quad$ Metaphysics |  |


| PHIL 181 | Philosophy of Language |
| :--- | :--- |
| PHIL 182 | Advanced Philosophy of Language |
| PHIL 182A | Naturalizing Representation |
| PHIL 183 | Self-knowledge and Metacognition |
| PHIL 184 | Topics in Epistemology |
| PHIL 185 | Special Topics in Epistemology: Testimony <br> in science and everyday life |
| PHIL 185W | Metaontology |
| PHIL 186 | Philosophy of Mind |
| PHIL 186A | Self-fashioning |
| PHIL 187 | Philosophy of Action |
| PHIL 188W | Paradoxes |
| PHIL 189G | Fine-Tuning Arguments for God's Existence |

Area 2
Select one of the following:

| PHIL 102 | Modern Philosophy, Descartes to Kant |
| :---: | :---: |
| PHIL 170 | Ethical Theory |
| PHIL 170B | Metaphor |
| PHIL 171 | Justice |
| PHIL 171P | 20th Century Political Theory: Liberalism and its Critics |
| PHIL 172 | History of Modern Moral Philosophy |
| PHIL 172B | Recent Ethical Theory: Moral Obligation |
| PHIL 172C | The Ethics of Care |
| PHIL 173B | Metaethics |
| PHIL 173W | Aesthetics |
| PHIL 175 | Philosophy of Law |
| PHIL 176 | Political Philosophy: The Social Contract Tradition |
| PHIL 176A | Classical Seminar. Origins of Political Thought |
| PHIL 177C | Ethics of Climate Change |
| PHIL 178 | Ethics in Society Honors Seminar |

Area 3
Select one of the following:

| PHIL 152 | Computability and Logic |
| :--- | :--- |
| PHIL 154 | Modal Logic |
| PHIL 351C | Formal Methods in Ethics |
| PHIL 356C | Logic and Artificial Intelligence |
| PHIL 357 | Research Seminar on Logic and Cognition |
| PHIL 359 | Topics in Logic, Information and Agency |

Area 4
Select one of the following:

| PHIL 20N | Philosophy of Artificial Intelligence |
| :--- | :--- |
| PHIL 153L | Computing Machines and Intelligence |
| PHIL 162 | Philosophy of Mathematics |
| PHIL 164 | Central Topics in the Philosophy of <br> Science: Theory and Evidence |
| PHIL 165 | Philosophy of Physics: Space and Time |
| PHIL 166 | Probability: Ten Great Ideas About Chance |
| PHIL 167D | Philosophy of Neuroscience |
| PHIL 169 | Evolution of the Social Contract |
| PHIL 194Y | Capstone seminar: Common Sense |
| PHIL 360 | Grad Seminar: Philosophy of Neuroscience |
| PHIL 385B | Topics in Metaphysics and Epistemology: <br> Situations and Attitudes |
| PSYCH 160 | Seminar on Emotion |


| SYMSYS 112 | Challenges for Language Systems |
| :--- | :--- |
| SYMSYS 202 | Theories of Consciousness |
| SYMSYS 207 | Conceptual Issues in Cognitive Science |
| SYMSYS 208 | Computer Machines and Intelligence |
| Total Units |  |

## Individually Designed Concentrations (IDCs)

Individually Designed Concentrations (IDCs) consist of five courses in a coherent subject area related to symbolic systems. This relationship may be established through inclusion in an IDC of two or more courses that connect the proposed concentration to the core, i.e. courses that (a) directly apply disciplines included in the core and (b) are related by topic or methodology to the other courses in the proposed concentration.

Course selection is to be made in consultation with the student's adviser and is subject to approval by the adviser, the Associate Director, and the Director. For examples of IDCs completed by past SSP students, consult the list of alumni and apply the filter "Individually Designed Concentration".

Approval of an IDC must take place no less than two full quarters before a student plans to graduate, e.g. prior to the first day of Winter Quarter of the senior year if a student intends to graduate in June of that year. Failure to obtain approval by the required date will necessitate either completing the requirements for one of the suggested concentrations, or delaying graduation to the end of the second full quarter following approval of an IDC.

To get a proposed IDC approved, send an email message to symsysdirectors at lists.stanford.edu, cc'd to your prospective concentration adviser, stating that the adviser has approved your proposal, and giving a title, one-paragraph description, and course plan for your proposed concentration.

## Additional Information

## Undergraduate Research

The program encourages all SSP majors to gain experience in directed research by participating in faculty research projects or by pursuing independent study. In addition to the Symbolic Systems Honors Program (see below), the following avenues are offered.

Summer Internships: students work on SSP-related faculty research projects. Application procedures are announced in the Winter Quarter for SSP majors.

Research Assistantships: other opportunities to work on faculty research projects are typically announced to SSP majors as they arise during the academic year.

Independent Study: under faculty supervision. For course credit, students should enroll in SYMSYS 196 Independent Study.

Contact SSP for more information on any of these possibilities, or see the Symbolic Systems (http://symsys.stanford.edu) web site. In addition, see the Undergraduate Advising and Research (https:// undergrad.stanford.edu/opportunities/research.html) web site for information on UAR grants and scholarships supporting student research projects at all levels.

## Honors Program

Seniors in SSP may apply for admission to the Symbolic Systems honors program prior to the beginning of their final year of study. Students who are accepted into the honors program can graduate with honors by completing an honors thesis under the supervision of a faculty member. Course credit for the honors project may be obtained by registering for SYMSYS 190 Senior Honors Tutorial any quarter while a student is
working on an honors project. SYMSYS 191 Senior Honors Seminar, is recommended for honors students during the senior year. Contact SSP or visit the program's web site for more information on the honors program, including deadlines and policies.
return to top of page (p.2)

## Instructions:

Click on the Edit pencil to getstarted.Delete this "Instructions" block when you have finished editing...just click inside the blue box to select and then clickdelete.Do not delete the block immediatelybelow.This block of general University information isrequired.Replace ENTER ANY GENERAL DEPARTMENT/PROGRAM TEXT HERE with any general department/program text, or just delete theline.This might include something generic about support, or instructions on who to contact,etc.If you department has not decided what to do, replace this line with text such as "The department is in the process of making decisions concerning COVID-19 policies and will update this tab when those decisions have been made." Then delete the remaining text below asrelevant.Undergraduate and graduategrading:Pick one statement and delete the others, or enter your owntext.You can add to the text also, perhaps to include reference to whom the student should contact,etc.Also, replace DEPARTMENTorPROGRAM with the name of your own department or program, e.g., Department ofBiology.Enter any additional policies under "Other..." or delete the header if there are no additionalpolicies. When done, save, and send toworkflow.Contact Stephen by Slack (arod) if you have questions, or come to our Bulletin officehours:https://asconfluence.stanford.edu/confluence/display/ SASLL/Stanford+Bulletin+2020-21.Note that you will be able to edit this content as new informationdevelops.

## COVID-19 Policies

On July 30, the Academic Senate adopted grading policies effective for all undergraduate and graduate programs, excepting the professional Graduate School of Business, School of Law, and the School of Medicine M.D. Program. For a complete list of those and other academic policies relating to the pandemic, see the "COVID-19 and Academic Continuity (http://exploredegrees.stanford.edu/covid-19-policy-changes/ \#tempdepttemplatetabtext)" section of this bulletin.

The Senate decided that all undergraduate and graduate courses offered for a letter grade must also offer students the option of taking the course for a "credit" or "no credit" grade and recommended that deans, departments, and programs consider adopting local policies to count courses taken for a "credit" or "satisfactory" grade toward the fulfillment of degree-program requirements and/or alter program requirements as appropriate.

## ENTER ANY GENERAL DEPARTMENT/PROGRAM TEXT HERE ... OR DELETE THIS LINE.

## Undergraduate Degree Requirements

## Grading

The DEPARTMENTorPROGRAM counts all courses taken in academic year 2020-21 with a grade of 'CR' (credit) or 'S' (satisfactory) towards satisfaction of undergraduate degree requirements that otherwise require a letter grade.

The DEPARTMENTorPROGRAM has not changed its policy concerning 'CR' (credit) or 'S' (satisfactory) grades in degree requirements requiring a letter grade for academic year 2020-21.

## OR ENTER YOUR OWN TEXT OR ADD ANY DETAILS HERE

Other Undergraduate Policies<br>enter any additional policies here

## Graduate Degree Requirements

## Grading

The DEPARTMENTorPROGRAM counts all courses taken in academic year 2020-21 with a grade of 'CR' (credit) or 'S' (satisfactory) towards satisfaction of graduate degree requirements that otherwise require a letter grade provided that the instructor affirms that the work was done at a 'B-' or better level.

The DEPARTMENTorPROGRAM counts all courses taken in academic year 2020-21 with a grade of 'CR' (credit) or 'S' (satisfactory) towards satisfaction of graduate degree requirements that otherwise require a letter grade provided that the instructor affirms that the work was done at a 'B' or better level.

The DEPARTMENTorPROGRAM has not changed its policy concerning 'CR' (credit) or 'S' (satisfactory) grades in degree requirements requiring a letter grade for academic year 2020-21.

## OR ENTER YOUR OWN TEXT OR ADD ANY DETAILS HERE

## Other Graduate Policies

ENTER ANY ADDITIONAL POLICIES HERE

## Thematic Emphasis

AAAS majors select a thematic emphasis. Selecting an emphasis allows students to customize their curriculum and synthesize course work taken across various departments and programs into a coherent focus. Emphases offered include; for faster navigation click on the links to the right:

## Thematic Concentration in Politics and Law

This emphasis exposes students to inquiry and major topics in disciplines like public policy, government, and international relations.

The concentration is not declared on Axess; it does not appear on the transcript or diploma. Students interested in this concentration should contact the AAAS undergraduate program office.

Students may find the following courses useful in fulfilling requirements in the Politics and Law concentration.

|  |  | Units |
| :---: | :---: | :---: |
| AFRICAAM 18A | Jazz History: Ragtime to Bebop, 1900-1940 | 3 |
| AFRICAAM 18B | Jazz History: Bebop to Present, 1940Present | 3 |
| AFRICAAM 19 | Studies in Music, Media, and Popular Culture: The Soul Tradition in African American Music | 3-4 |
| AFRICAAM 20A | Jazz Theory | 3 |
| AFRICAAM 21 | African American Vernacular English | 3-5 |
| AFRICAAM 31 | RealTalk: Intimate Discussions about the African Diaspora | 1 |
| AFRICAAM 43 | Introduction to English III: Introduction to African American Literature | 3-5 |
| AFRICAAM 50B | Nineteenth Century America | 3 |
| AFRICAAM 64C | From Freedom to Freedom Now!: African American History, 1865-1965 | 3 |
| AFRICAAM 75E | Black Cinema | 2 |
| AFRICAAM 105 | Black Matters: Introduction to Black Studies | 5 |


| AFRICAAM 116 | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |
| :---: | :---: | :---: |
| AFRICAAM 123 | Great Works of the African American Tradition | 5 |
| AFRICAAM 150B | Nineteenth Century America | 5 |
| AFRICAAM 154 | Black Feminist Theory | 5 |
| AFRICAAM 156 | Performing History: Race, Politics, and Staging the Plays of August Wilson | 4 |
| AFRICAAM 158 | Black Queer Theory | 5 |
| AFRICAAM 195 | Independent Study | 2-5 |
| AFRICAAM 199 | Honors Project | 1-5 |
| AFRICAAM 200X | Honors Thesis and Senior Thesis Seminar | 5 |
| AFRICAAM 200 Y | Honors Thesis and Senior Thesis Research | 3-5 |
| AFRICAAM 200 Z | Honors Thesis and Senior Thesis Research | 3-5 |
| AFRICAAM 245 | Understanding Racial and Ethnic Identity Development | 3-5 |
| AFRICAAM 262D | African American Poetics | 5 |
| AFRICAAM 267E | Martin Luther King, Jr. - His Life, Ideas, and Legacy | 4-5 |
| AFRICAST 142 | Challenging the Status Quo: Social Entrepreneurs Advancing Democracy, Development and Justice | 3-5 |
| AMSTUD 15 | Global Flows: The Globalization of Hip Hop Art, Culture, and Politics | 1-2 |
| AMSTUD 51Q | Comparative Fictions of Ethnicity | 4 |
| AMSTUD 164C | From Freedom to Freedom Now: African American History, 1865-1965 | 5 |
| AMSTUD 201 | History of Education in the United States | 3-5 |
| AMSTUD 214 | The American 1960s: Thought, Protest, and Culture | 5 |
| AMSTUD 226 | Race and Racism in American Politics | 5 |
| AMSTUD 261E | Mixed Race Literature in the U.S. and South Africa | 5 |
| AMSTUD 262C | African American Literature and the Retreat of Jim Crow | 5 |
| AMSTUD 262D | African American Poetics | 5 |
| ANTHRO 32 | Theories in Race and Ethnicity: A Comparative Perspective | 5 |
| ARTHIST 178 | Ethnicity and Dissent in United States Art and Literature | 4 |
| DANCE 45 | Dance Improvisation from Freestyle to Hip Hop | 1-2 |
| EDUC 193C | Psychological Well-Being On Campus: <br> Perspectives Of The Black Diaspora | 1 |
| EDUC 216 | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |
| HISTORY 11W | Service-Learning Workshop on Issues of Education Equity | 1 |
| HISTORY 50A | Colonial and Revolutionary America | 3 |
| HISTORY 50B | Nineteenth Century America | 3 |
| HISTORY 50C | The United States in the Twentieth Century | 3 |
| HISTORY 74S | Sounds of the Century: Popular Music and the United States in the 20th Century | 5 |
| HISTORY 150B | Nineteenth Century America | 5 |
| HISTORY 150C | The United States in the Twentieth Century | 5 |
| HISTORY 164C | From Freedom to Freedom Now: African American History, 1865-1965 | 5 |
| HISTORY 167A | Martin Luther King, Jr. and the Global Freedom Struggle | 3-5 |


| HISTORY 255E | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |
| :---: | :---: | :---: |
| HISTORY 267E | Martin Luther King, Jr. - His Life, Ideas, and Legacy | 4-5 |
| HUMBIO 121E | Ethnicity and Medicine | 1-3 |
| HUMBIO 122S | Social Class, Race, Ethnicity, and Health | 4 |
| LINGUIST 65 | African American Vernacular English | 3-5 |
| LINGUIST 152 | Sociolinguistics and Pidgin Creole Studies | 2-4 |
| LINGUIST 252 | Sociolinguistics and Pidgin Creole Studies | 2-4 |
| LINGUIST 265 | African American Vernacular English | 3-5 |
| MUSIC 20A | Jazz Theory | 3 |
| MUSIC 147J | Studies in Music, Media, and Popular Culture: The Soul Tradition in African American Music | 3-4 |
| POLISCI 121L | Racial-Ethnic Politics in US | 5 |
| POLISCI 226 | Race and Racism in American Politics | 5 |
| PSYCH 183 | SPARQ Lab | 2-3 |
| PSYCH 215 | Mind, Culture, and Society | 3 |
| PUBLPOL 121L | Racial-Ethnic Politics in US | 5 |
| SOC 45Q | Understanding Race and Ethnicity in American Society | 4 |
| SOC 145 | Race and Ethnic Relations in the USA | 4 |
| SOC 149 | The Urban Underclass | 4 |
| TAPS 32 | The 5th Element: Hip Hop Knowledge, Pedagogy, and Social Justice | 1-5 |
| TAPS 176S | Finding Meaning in Life's Struggles: Narrative Ways of Healing | 5 |
| URBANST 112 | The Urban Underclass | 4 |

## Thematic Concentration in Identity and Intersectionality

This multi-disciplinary thematic emphasis exposes students to fields that attend to questions of identity and analysis drawn from gender and sexuality studies, critical ethnic studies, religious studies, etc.

The concentration is not declared on Axess; it does not appear on the transcript or diploma. Students interested in this concentration should contact the AAAS undergraduate program office.

Students may find the following courses useful in fulfilling requirements in the Identity and Intersectionality concentration.

|  |  | Units |
| :---: | :---: | :---: |
| AFRICAAM 64C | From Freedom to Freedom Now!: African American History, 1865-1965 | 3 |
| AFRICAAM 154 | Black Feminist Theory | 5 |
| AFRICAAM 156 | Performing History: Race, Politics, and Staging the Plays of August Wilson | 4 |
| AFRICAAM 195 | Independent Study | 2-5 |
| AFRICAAM 199 | Honors Project | 1-5 |
| AFRICAAM 200X | Honors Thesis and Senior Thesis Seminar | 5 |
| AFRICAAM 245 | Understanding Racial and Ethnic Identity Development | 3-5 |
| AFRICAST 111 | Education for All? The Global and Local in Public Policy Making in Africa | 3-5 |
| AFRICAST 211 | Education for All? The Global and Local in Public Policy Making in Africa | 3-5 |
| ARTHIST 178 | Ethnicity and Dissent in United States Art and Literature | 4 |
| EDUC 232 | Culture, Learning, and Poverty | 2-3 |
| EDUC 245 | Understanding Racial and Ethnic Identity Development | 3-5 |


| HISTORY 47 | History of South Africa | 3 |
| :--- | :--- | ---: |
| HISTORY 50A | Colonial and Revolutionary America | 3 |
| HISTORY 164C | From Freedom to Freedom Now: African <br>  <br> HUMBIO 122S | American History, 1865-1965 |
| PSYCH 183 | SPARQ Lab |  |
| SOC 45Q | Understanding Race and Ethnicity in <br> American Society | 4 |
| SOC 135 | Poverty, Inequality, and Social Policy in the <br> United States | $3-4$ |
| SOC 140 | Introduction to Social Stratification | 4 |
| SOC 149 | The Urban Underclass | 3 |
| URBANST 112 | The Urban Underclass | 4 |

## Thematic Concentration in Media, Science, and Technology

This thematic emphasis focuses on disciplines that engage journalism and communications, digital studies, environmental studies, biotechnology, and science, technology, and society, etc.

The concentration is not declared on Axess; it does not appear on the transcript or diploma. Students interested in this concentration should contact the AAAS undergraduate program office.

Students may find the following courses useful in fulfilling requirements in the Media, Science, and Technology concentration.

|  |  | Units |
| :---: | :---: | :---: |
| AFRICAAM 21 | African American Vernacular English | 3-5 |
| AFRICAAM 31 | RealTalk: Intimate Discussions about the African Diaspora | 1 |
| AFRICAAM 133 | Literature and Society in Africa and the Caribbean | 4 |
| AFRICAAM 195 | Independent Study | 2-5 |
| AFRICAAM 199 | Honors Project | 1-5 |
| AFRICAAM 200X | Honors Thesis and Senior Thesis Seminar | 5 |
| AMSTUD 261E | Mixed Race Literature in the U.S. and South Africa | 5 |
| ANTHRO 27N | Ethnicity and Violence: Anthropological Perspectives | 3-5 |
| ANTHRO 32 | Theories in Race and Ethnicity: A Comparative Perspective | 5 |
| ANTHRO 138 | Medical Ethics in a Global World: Examining Race, Difference and Power in the Research Enterprise | 5 |
| ARTHIST 127A | African Art and Politics, c. 1900 -Present | 4 |
| ARTHIST 192B | Art of the African Diaspora | 4 |
| COMPLIT 149 | The Laboring of Diaspora \& Border Literary Cultures | 3-5 |
| HISTORY 48Q | South Africa: Contested Transitions | 4 |
| HISTORY 50A | Colonial and Revolutionary America | 3 |
| HISTORY 106A | Global Human Geography: Asia and Africa | 5 |
| LINGUIST 152 | Sociolinguistics and Pidgin Creole Studies | 2-4 |

## Thematic Concentration in Education, Policy, and Reform

Students in the African and African American Studies major can choose a concentration in Education. The Thematic Concentration in Education concentration is designed to explore the history, policy, and practice in education to understand how issues of race, ethnicity, socioeconomic status, culture, and language shape educational opportunity. The goal of the concentration is to develop an understanding
of the core issues facing educators and policy makers so that students may learn how they can contribute to the social and political discourse surrounding issues of education and opportunity policy. It also explores issues related to education and education policy, linguistics, psychology, sociology, anthropology, etc.

The concentration is not declared on Axess; it does not appear on the transcript or diploma. Students interested in this concentration should contact the AAAS undergraduate program office.

Students may find the following courses useful in fulfilling requirements in the Education, Policy, and Reform concentration.

|  |  | Units |
| :---: | :---: | :---: |
| AFRICAAM 31 | RealTalk: Intimate Discussions about the African Diaspora | 1 |
| AFRICAAM 32 | The 5th Element: Hip Hop Knowledge, Pedagogy, and Social Justice | 1-5 |
| AFRICAAM 106 | Race, Ethnicity, and Linguistic Diversity in Classrooms: Sociocultural Theory and Practices | 3-5 |
| AFRICAAM 112 | Urban Education | 3-5 |
| AFRICAAM 116 | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |
| AFRICAAM 130 | Community-based Research As Tool for Social Change:Discourses of Equity in Communities \& Classrooms | 3-5 |
| AFRICAAM 165 | Identity and Academic Achievement | 3 |
| AFRICAAM 195 | Independent Study | 2-5 |
| AFRICAAM 199 | Honors Project | 1-5 |
| AFRICAAM 200X | Honors Thesis and Senior Thesis Seminar | 5 |
| AFRICAAM 200Y | Honors Thesis and Senior Thesis Research | 3-5 |
| AFRICAAM $200 Z$ | Honors Thesis and Senior Thesis Research | 3-5 |
| AFRICAAM 233A | Counseling Theories and Interventions from a Multicultural Perspective | 3-5 |
| AFRICAAM 267E | Martin Luther King, Jr. - His Life, Ideas, and Legacy | 4-5 |
| AFRICAST 111 | Education for All? The Global and Local in Public Policy Making in Africa | 3-5 |
| AFRICAST 112 | AIDS, Literacy, and Land: Foreign Aid and Development in Africa | 3-5 |
| AFRICAST 135 | Designing Research-Based Interventions to Solve Global Health Problems | 3-4 |
| AFRICAST 211 | Education for All? The Global and Local in Public Policy Making in Africa | 3-5 |
| AFRICAST 212 | AIDS, Literacy, and Land: Foreign Aid and Development in Africa | 3-5 |
| AMSTUD 164C | From Freedom to Freedom Now: African American History, 1865-1965 | 5 |
| AMSTUD 201 | History of Education in the United States | 3-5 |
| AMSTUD 226 | Race and Racism in American Politics | 5 |
| EDUC 12SC | Hip Hop as a Universal Language | 2 |
| EDUC 103B | Race, Ethnicity, and Linguistic Diversity in Classrooms: Sociocultural Theory and Practices | 3-5 |
| EDUC 165 | History of Higher Education in the U.S. | 3-5 |
| EDUC 193C | Psychological Well-Being On Campus: <br> Perspectives Of The Black Diaspora | 1 |
| EDUC 201 | History of Education in the United States | 3-5 |
| EDUC 216 | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |
| EDUC 232 | Culture, Learning, and Poverty | 2-3 |


| EDUC 243 | Writing Across Languages and Cultures: <br> Research in Writing and Writing Instruction | $3-5$ |
| :--- | :--- | :--- |
| EDUC 245 | Understanding Racial and Ethnic Identity <br> Development | $3-5$ |
| EDUC 322 | Community-based Research As Tool for <br> Social Change:Discourses of Equity in <br> Communities \& Classrooms | $3-5$ |
| HISTORY 11W | Service-Learning Workshop on Issues of <br> Education Equity | 1 |
| HISTORY 255E | Education, Race, and Inequality in African <br> American History, 1880-1990 | $3-5$ |
| LINGUIST 65 | African American Vernacular English | $3-5$ |
| LINGUIST 152 | Sociolinguistics and Pidgin Creole Studies | $2-4$ |
| LINGUIST 252 | Sociolinguistics and Pidgin Creole Studies | $2-4$ |
| LINGUIST 265 | African American Vernacular English | $3-5$ |
| SOC 135 | Poverty, Inequality, and Social Policy in the <br> United States | $3-4$ |
| TAPS 32 | The 5th Element: Hip Hop Knowledge, <br> Pedagogy, and Social Justice | $1-5$ |

## Thematic Concentration in Social Impact and Entrepreneurship

This thematic emphasis focuses on practice and the study of justice ideologies, social movements, social entrepreneurship, and communitybased research, etc.

The concentration is not declared on Axess; it does not appear on the transcript or diploma. Students interested in this concentration should contact the AAAS undergraduate program office.

Students may find the following courses useful in fulfilling requirements in the Social Impact and Entrepreneurship concentration.

|  |  | Units |
| :---: | :---: | :---: |
| AFRICAAM 31 | RealTalk: Intimate Discussions about the African Diaspora | 1 |
| AFRICAAM 43 | Introduction to English III: Introduction to African American Literature | 3-5 |
| AFRICAAM 145A | Poetics and Politics of Caribbean Women's Literature | 5 |
| AFRICAAM 154 | Black Feminist Theory | 5 |
| AFRICAAM 158 | Black Queer Theory | 5 |
| AFRICAAM 195 | Independent Study | -5 |
| AFRICAAM 199 | Honors Project | 1-5 |
| AFRICAAM 200X | Honors Thesis and Senior Thesis Seminar | 5 |
| AFRICAAM 245 | Understanding Racial and Ethnic Identity Development | 3-5 |
| AMSTUD 178 | Ethnicity and Dissent in United States Art and Literature | 4 |
| AMSTUD 201 | History of Education in the United States | 3-5 |
| ARTHIST 178 | Ethnicity and Dissent in United States Art and Literature | 4 |
| CSRE 144 | Transforming Self and Systems: Crossing Borders of Race, Nation, Gender, Sexuality, and Class | 5 |
| EDUC 245 | Understanding Racial and Ethnic Identity Development | 3-5 |
| FEMGEN 154 | Black Feminist Theory | 5 |
| HISTORY 74S | Sounds of the Century: Popular Music and the United States in the 20th Century | 5 |
| HISTORY 145B | Africa in the 20th Century | 5 |
| LINGUIST 156 | Language, Gender, \& Sexuality | 4 |


| PSYCH 183 | SPARQ Lab | $2-3$ |
| :--- | :--- | ---: |
| SOC 140 | Introduction to Social Stratification | 3 |
| SOC 142 | Sociology of Gender | 3 |

## Thematic Concentration in Historical Inquiry

Students in the African and African American Studies major can choose a concentration in Historical Inquiry. This emphasis exposes students to historical and historiographical views of the black experience in US and transnational contexts.

The concentration is not declared on Axess; it does not appear on the transcript or diploma. Students interested in this concentration should contact the AAAS undergraduate program office.

Students may find the following courses useful in fulfilling requirements in the Historical Inquiry concentration.

|  |  | Units |
| :---: | :---: | :---: |
| AFRICAAM 18A | Jazz History: Ragtime to Bebop, 1900-1940 | 3 |
| AFRICAAM 18B | Jazz History: Bebop to Present, 1940Present | 3 |
| AFRICAAM 30 | The Egyptians | 3-5 |
| AFRICAAM 50B | Nineteenth Century America | 3 |
| AFRICAAM 64C | From Freedom to Freedom Now!: African American History, 1865-1965 | 3 |
| AFRICAAM 105 | Black Matters: Introduction to Black Studies | 5 |
| AFRICAAM 107C | The Black Mediterranean: Greece, Rome and Antiquity | 4-5 |
| AFRICAAM 116 | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |
| AFRICAAM 145B | Africa in the 20th Century | 5 |
| AFRICAAM 150B | Nineteenth Century America | 5 |
| AFRICAAM 195 | Independent Study | 2-5 |
| AFRICAAM 199 | Honors Project | 1-5 |
| AFRICAAM 200X | Honors Thesis and Senior Thesis Seminar | 5 |
| AFRICAAM 262D | African American Poetics | 5 |
| AFRICAAM 267E | Martin Luther King, Jr. - His Life, Ideas, and Legacy | 4-5 |
| AMSTUD 164C | From Freedom to Freedom Now: African American History, 1865-1965 | 5 |
| AMSTUD 261E | Mixed Race Literature in the U.S. and South Africa | 5 |
| AMSTUD 262C | African American Literature and the Retreat of Jim Crow | 5 |
| EDUC 216 | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |
| HISTORY 45B | Africa in the 20th Century | 3 |
| HISTORY 50A | Colonial and Revolutionary America | 3 |
| HISTORY 50B | Nineteenth Century America | 3 |
| HISTORY 50C | The United States in the Twentieth Century | 3 |
| HISTORY 145B | Africa in the 20th Century | 5 |
| HISTORY 147 | History of South Africa | 5 |
| HISTORY 150B | Nineteenth Century America | 5 |
| HISTORY 164C | From Freedom to Freedom Now: African American History, 1865-1965 | 5 |
| HISTORY 167A | Martin Luther King, Jr. and the Global Freedom Struggle | 3-5 |
| HISTORY 245G | Law and Colonialism in Africa | 4-5 |
| HISTORY 255E | Education, Race, and Inequality in African American History, 1880-1990 | 3-5 |


| HISTORY 267E | Martin Luther King, Jr. - His Life, Ideas, and <br> Legacy | $4-5$ |
| :--- | :--- | ---: |
| MUSIC 18A | Jazz History: Ragtime to Bebop, 1900-1940 | 3 |
| MUSIC 18B | Jazz History: Bebop to Present, 1940- <br> Present | 3 |
| SOC 119 | Understanding Large-Scale Societal <br> Change: The Case of the 1960s | 5 |

## Thematic Concentration in Arts and Cultural Expression in Identity, Diversity and Aesthetics (IDA)

This thematic emphasis focuses on disciplines that engage literature, performance studies, art and visual culture, cultural theory, etc. This is also the track for students concentrating in Identity, Diversity, and Aesthetics with the Institute for Diversity in the Arts. These students will complete a Creative Honors Thesis.

The concentration is not declared on Axess; it does not appear on the transcript or diploma. Students interested in this concentration should contact the AAAS undergraduate program office.

Students may find the following courses useful in fulfilling requirements in the Arts \& Cultural Expression concentration.


| AFRICAAM 160J | Conjure Art 101: Performances of Ritual, Spirituality and Decolonial Black Feminist | 2 | ASNAMST 117D | Race, Gender, and Sexuality in Contemporary American Film | 4-5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Magic |  | ASNAMST 144 | Transforming Self and Systems: Crossing | 5 |
| AFRICAAM 176B | Documentary Fictions | 4 |  | Borders of Race, Nation, Gender, Sexuality, |  |
| AFRICAAM 189 | Black Life and Death in the Neoliberal Era | 5 |  | and Class |  |
| AFRICAAM 194 | Topics in Writing \& Rhetoric: Contemporary Black Rhetorics: Black Twitter and Black | 4 | ASNAMST 151D | Migration and Diaspora in American Art, 1800-Present | 4 |
|  | Digital Cultures |  | ASNAMST 157 | An Introduction to Asian American | 3 |
| AFRICAAM 194A | Topics in Writing \& Rhetoric: Freedom's | 4 |  | Literature: The Short Story |  |
|  | Mixtape: DJing Contemporary African American Rhetorics |  | ASNAMST 174S | When Half is Whole: Developing Synergistic Identities and Mestiza Consciousness | 5 |
| AFRICAAM 195 | Independent Study | 2-5 | ASNAMST 186B | Asian American Art: 1850-Present | 4 |
| AFRICAAM 199 | Honors Project | 1-5 | CHILATST 21 | Visual Storytelling in Community: The Casa | 3 |
| AFRICAAM 200N | Funkentelechy: Technologies, Social | 5 |  | Zapata Mural Archive \& History Project |  |
|  | Justice and Black Vernacular Cultures |  | CHILATST 109 | GENTE: An incubator for transforming | 5 |
| AFRICAAM 200X | Honors Thesis and Senior Thesis Seminar | 5 |  |  |  |
| AFRICAAM 258 | Black Feminist Theater and Theory | 4 | COMPLIT 51Q | Comparative Fictions of Ethnicity | 4 |
| AFRICAAM 262D | African American Poetics | 5 | COMPLIT 55N | Black Panther, Hamilton, Díaz, and Other | 3-5 |
| AFRICAST 127 | African Art and Politics, c. 1900 - Present | 4 |  | Wondrous Lives |  |
| AMSTUD 3E | Michelle Obama in American Culture | 1 | COMPLIT 133A | Literature and Society in Africa and the Caribbean | 4 |
| AMSTUD 51 | Hamilton: An American Musical | 1 | COMPLIT 149 |  | 3-5 |
| AMSTUD 12A | Introduction to English III: Introduction to African American Literature | 3-5 | COMPLIT 149 | Cultures | 3-5 |
| AMSTUD 15 | Global Flows: The Globalization of Hip Hop Art, Culture, and Politics | 1-2 | COMPLIT 348 | US-Mexico Border Fictions: Writing La Frontera, Tearing Down the Wall | 3-5 |
| AMSTUD 51Q | Comparative Fictions of Ethnicity | 4 | CSRE 3E |  |  |
| AMSTUD 91A | Asian American Autobiography/W | 3-5 | E 10A | Hamilton: An American Musical | 1 |
| AMSTUD 117 | Race, Gender, and Sexuality in Contemporary American Film | 4-5 | E 10A | Introduction to Identity, Diversity, and Aesthetics: Arts, Culture, and Pedagogy | 1 |
| AMSTUD 151 | Migration and Diaspora in American Art, 1800-Present | 4 | CSRE 10AY | Pacific Standard Time LA/LA creative projects in a Celebration Beyond Borders | 1-2 |
| AMSTUD 178 |  | 4 | CSRE 21 | African American Vernacular English | 3-5 |
| A | Ethnicity and Dissent in United States Art and Literature | 4 | CSRE 44 | Living Free: Embodying Healing and | 1-4 |
| AMSTUD 186D | Asian American Art: 1850-Present | 4 |  | Creativity in The Era of Racial Justice Movements |  |
| AMSTUD 197 | Dance in Prison: The Arts, Juvenile Justice, and Rehabilitation in America | 3 | CSRE 47Q | Heartfulness: Mindfulness, Compassion, and Responsibility | 3 |
| AMSTUD 261 | Personal Narratives in Feminist, Gender, and Sexuality Studies | 4-5 | CSRE 51Q | Comparative Fictions of Ethnicity | 4 |
| AMSTUD 262D | African American Poetics | 5 | CSRE 55N | Black Panther, Hamilton, Díaz, and Other Wondrous Lives | 3-5 |
| ANTHRO 320A | Race, Ethnicity, and Language: Racial, Ethnic, and Linguistic Formations | 3-5 | CSRE 61 | Introduction to Dance Studies: Dancing Across Stages, Clubs, Screens, and Borders | 3-4 |
| ARTHIST 127A | African Art and Politics, c. 1900 -Present | 4 | CSRE 78 | Art + Community: Division, Resilience \& | 1-5 |
| ARTHIST 151 | Migration and Diaspora in American Art, 1800-Present | 4 |  | Reconciliation |  |
| ARTHIST 178 |  |  | CSRE 82G | Making Palestine Visible | 3-5 |
| ARTHIST 178 | Ethnicity and Dissent in United States Art and Literature | 4 | CSRE 91D | Asian American Autobiography/W | 3-5 |
| ARTHIST 186B | Asian American Art: 1850-Present | 4 | CSRE 95I | Space, Public Discourse and Revolutionary Practices | 3-4 |
| ARTHIST 192B | Art of the African Diaspora | 4 | CSRE 117D | Race, Gender, and Sexuality in | 4-5 |
| ARTHIST 193 | Jacob Lawrence's Twentieth Century: | 5 |  | Contemporary American Film |  |
|  | African American Art and Culture |  | CSRE 123A | American Indians and the Cinema | 5 |
| ARTHIST 221E | Peripheral Dreams: The Art and Literature of Miró, Dalí, and other Surrealists in Catalonia | 3-5 | CSRE 127A | Can't Stop Won't Stop: A History Of The Hip-Hop Arts | 2-4 |
| ARTHIST 246N | Pacific Dreams: Art in California | 3 | CSRE 141E | Counterstory in Literature and Education | 3 |
| ARTHIST 351 | Migration and Diaspora in American Art, 1800-Present | 4 | CSRE 144 | Transforming Self and Systems: Crossing Borders of Race, Nation, Gender, Sexuality, and Class | 5 |
| ARTSTUDI 270 | Advanced Photography Seminar | 4 | CSRE 149 | The Laboring of Diaspora \& Border Literary | 3-5 |
| ASNAMST 31N | Behind the Big Drums: Exploring Taiko | 3 |  | Cultures |  |
| ASNAMST 91A | Asian American Autobiography/W | 3-5 | CSRE 151D | Migration and Diaspora in American Art, 1800-Present | 4 |


| CSRE 153D | Creative Research for Artists | 1-2 |
| :---: | :---: | :---: |
| CSRE 154D | Black Magic: Ethnicity, Race, and Identity in Performance Cultures | 3-4 |
| CSRE 156T | Performing History: Race, Politics, and Staging the Plays of August Wilson | 4 |
| CSRE 157A | Performing Arabs and Others in Theory and Practice | 4 |
| CSRE 160J | Conjure Art 101: Performances of Ritual, Spirituality and Decolonial Black Feminist Magic | 2 |
| CSRE 160M | Introduction to Representations of the Middle East in Dance, Performance, \& Popular Culture | 3-4 |
| CSRE 174S | When Half is Whole: Developing Synergistic Identities and Mestiza Consciousness | 5 |
| CSRE 188Q | Imagining Women: Writers in Print and in Person | 4-5 |
| CSRE 194KT | Topics in Writing \& Rhetoric: The Last Hopi On Earth: The Rhetoric of Entertainment Inequity | 4 |
| CSRE 201D | Public Art Interventions in Social \& Cultural Spaces | 4-5 |
| CSRE 221D | Crafting Challenging Conversations in a Conflicted World | 3 |
| CSRE 258 | Black Feminist Theater and Theory | 4 |
| CSRE 385 | Race, Ethnicity, and Language: Pedagogical Possibilities | 3-4 |
| CSRE 389A | Race, Ethnicity, and Language: Racial, Ethnic, and Linguistic Formations | 3-5 |
| DANCE 1 | Contemporary Modern I: Liquid Flow | 1 |
| DANCE 2 | Introduction to Dance \& Movement: Afro Flows | 1 |
| DANCE 30 | Contemporary Choreography: Chocolate Heads Performance Project | 2 |
| DANCE 45 | Dance Improvisation from Freestyle to Hip Hop | 1-2 |
| DANCE 71 | Introduction to Capoeira: An African Brazilian Art Form | 1 |
| DANCE 102 | Musical Theater Dance Styles | 1 |
| DANCE 106I | Stanford Dance Community: Inter-Style Choreography Workshop | 1-2 |
| DANCE 108 | Hip Hop Choreography: Hip Hop Meets Broadway | 1 |
| DANCE 118 | Developing Creativity In Dance | 1 |
| DANCE 128 | Roots Modern Experience - Mixed Level | 1 |
| DANCE 153D | Creative Research for Artists | 1-2 |
| DANCE 160J | Conjure Art 101: Performances of Ritual, Spirituality and Decolonial Black Feminist Magic | 2 |
| DANCE 160M | Introduction to Representations of the Middle East in Dance, Performance, \& Popular Culture | 3-4 |
| DANCE 161D | Introduction to Dance Studies: Dancing Across Stages, Clubs, Screens, and Borders | 3-4 |
| DANCE 197 | Dance in Prison: The Arts, Juvenile Justice, and Rehabilitation in America | 3 |
| EARTHSYS 95 | Liberation Through Land: Organic Gardening and Racial Justice | 2 |
| EDUC 12SC | Hip Hop as a Universal Language | 2 |
| EDUC 141 | Counterstory in Literature and Education | 3 |
| EDUC 341 | Counterstory in Literature and Education | 3 |


| EDUC 389A | Race, Ethnicity, and Language: Racial, Ethnic, and Linguistic Formations | 3-5 |
| :---: | :---: | :---: |
| EDUC 389C | Race, Ethnicity, and Language: Pedagogical Possibilities | 3-4 |
| ENGLISH 12A | Introduction to English III: Introduction to African American Literature | 3-5 |
| ENGLISH 91A | Asian American Autobiography/W | 3-5 |
| ENGLISH 159 | James Baldwin \& Twentieth Century Literature | 5 |
| FEMGEN 3E | Michelle Obama in American Culture | 1 |
| FEMGEN 12SI | Beyond the Athlete: Intersection of Diversity, Storytelling, and Athletics | -2 |
| FEMGEN 13N | Women Making Music | 3 |
| FEMGEN 21T | StoryCraft: Sexuality, Intimacy \& Relationships | 2 |
| FEMGEN 97 | Bow Down: Queer Hip-Hop Pedagogy | 3 |
| FEMGEN 113X | Feminist Poetry in the U.S., 1973-2017 | -5 |
| FEMGEN 117F | Race, Gender, and Sexuality in Contemporary American Film | 4-5 |
| FEMGEN 133 | Transgender Performance and Performativity | 4 |
| FEMGEN 144X | Transforming Self and Systems: Crossing Borders of Race, Nation, Gender, Sexuality, and Class | 5 |
| FEMGEN 154G | Black Magic: Ethnicity, Race, and Identity in Performance Cultures | 3-4 |
| FEMGEN 159 | James Baldwin \& Twentieth Century Literature | 5 |
| FEMGEN 160M | Introduction to Representations of the Middle East in Dance, Performance, \& Popular Culture | 3-4 |
| FEMGEN 205 | Songs of Love and War. Gender, Crusade, Politics | 3-5 |
| FEMGEN 258X | Black Feminist Theater and Theory | 4 |
| FEMGEN 261 | Personal Narratives in Feminist, Gender, and Sexuality Studies | 4-5 |
| FEMGEN 314 | Performing Identities | 4 |
| FEMGEN 361 | Personal Narratives in Feminist, Gender, and Sexuality Studies | 4-5 |
| FILMSTUD 100C | History of World Cinema III, 1960-Present | 3-5 |
| FILMSTUD 132A | Indian Cinema | 5 |
| FILMSTUD 213 | Theories of Melodrama | 5 |
| FILMSTUD 300C | History of World Cinema III, 1960-Present | 3-5 |
| FILMSTUD 332A | Indian Cinema | 5 |
| FILMSTUD 413 | Theories of Melodrama | 5 |
| FRENCH 205 | Songs of Love and War. Gender, Crusade, Politics | 3-5 |
| GLOBAL 145 | Space, Public Discourse and Revolutionary Practices | 3-4 |
| HISTORY 3E | Michelle Obama in American Culture | 1 |
| HISTORY 3G | Hamilton: An American Musical | 1 |
| HISTORY 74S | Sounds of the Century: Popular Music and the United States in the 20th Century | 5 |
| HISTORY 82G | Making Palestine Visible | 3-5 |
| HISTORY 182G | Making Palestine Visible | 3-5 |
| ILAC 149 | The Laboring of Diaspora \& Border Literary Cultures | 3-5 |
| ILAC 281E | Peripheral Dreams: The Art and Literature of Miró, Dalí, and other Surrealists in Catalonia | 3-5 |


| ILAC 348 | US-Mexico Border Fictions: Writing La Frontera, Tearing Down the Wall | 3-5 |
| :---: | :---: | :---: |
| LIFE 124 | Counterstory in Literature and Education | 3 |
| LINGUIST 65 | African American Vernacular English | 3-5 |
| LINGUIST 253 | Race, Ethnicity, and Language: Racial, Ethnic, and Linguistic Formations | 3-5 |
| MUSIC 4SI | Interactive Introduction to North American Taiko | 1 |
| MUSIC 14N | Women Making Music | 3 |
| MUSIC 31N | Behind the Big Drums: Exploring Taiko | 3 |
| MUSIC 184E | Musical Theater Dance Styles | 1 |
| NATIVEAM 221 | Crafting Challenging Conversations in a Conflicted World | 3 |
| PWR 1WI | Writing \& Rhetoric 1: By Any Means Necessary: The Rhetoric of Black Radical Movements | 4 |
| PWR 2JC | Writing \& Rhetoric 2: Walk(s) of Shame: The Rhetoric of Respectability | 4 |
| PWR 194AB | Topics in Writing \& Rhetoric: Freedom's Mixtape: DJing Contemporary African American Rhetorics | 4 |
| PWR 194ABA | Topics in Writing \& Rhetoric: Contemporary Black Rhetorics: Prince | 2-3 |
| PWR 194AJ | Topics in Writing \& Rhetoric: Contemporary Black Rhetorics: Black Twitter and Black Digital Cultures | 4 |
| PWR 194KT | Topics in Writing \& Rhetoric: The Last Hopi On Earth: The Rhetoric of Entertainment Inequity | 4 |
| STS 200N | Funkentelechy. Technologies, Social Justice and Black Vernacular Cultures | 5 |
| TAPS 20N | Prisons and Performance | 3 |
| TAPS 21T | StoryCraft: Sexuality, Intimacy \& Relationships | 2 |
| TAPS 32 | The 5th Element: Hip Hop Knowledge, Pedagogy, and Social Justice | 1-5 |
| TAPS 133T | Transgender Performance and Performativity | 4 |
| TAPS 154G | Black Magic: Ethnicity, Race, and Identity in Performance Cultures | 3-4 |
| TAPS 156 | Performing History: Race, Politics, and Staging the Plays of August Wilson | 4 |
| TAPS 157P | Performing Arabs and Others in Theory and Practice | 4 |
| TAPS 160M | Introduction to Representations of the Middle East in Dance, Performance, \& Popular Culture | 3-4 |
| TAPS 161D | Introduction to Dance Studies: Dancing Across Stages, Clubs, Screens, and Borders | 3-4 |
| TAPS 176S | Finding Meaning in Life's Struggles: Narrative Ways of Healing | 5 |
| TAPS 197 | Dance in Prison: The Arts, Juvenile Justice, and Rehabilitation in America | 3 |
| TAPS 257P | Performing Arabs and Others in Theory and Practice | 4 |
| TAPS 258 | Black Feminist Theater and Theory | 4 |
| TAPS 314 | Performing Identities | 4 |
| TAPS 356 | Performing History: Race, Politics, and Staging the Plays of August Wilson | 4 |
| WELLNESS 180 | The Flourishing Activist: Mindfully Being the Revolution | 1-2 |

### 3.5 Bachelor of Arts in Political Science

The Department of Political Science offers a Bachelor of Arts in Political Science. Eligible students may also pursue a Bachelor of Arts with Honors, additional information available on the Political Science website (https://politicalscience.stanford.edu/undergraduate-program/ honors/). The department also offers a minor in Political Science (http://exploredegrees.stanford.edu/schoolofhumanitiesandsciences/ politicalscience/\#minortext).

## How to Declare the Major

Students are encouraged to declare the major by the end of the sophomore year. Students must complete a declaration form, available on the Political Science website (https://politicalscience.stanford.edu/ undergraduate-major/major/) and in the department office in Encina Hall West 100. The form must be signed by an advisor of the student's choosing who is a member of the Political Science faculty (https:// politicalscience.stanford.edu/people/faculty/) or courtesy faculty (https://politicalscience.stanford.edu/people/other-instructors/). The advisor should not be a Political Science lecturer. Next, the student should submit the declaration form during a meeting with the Political Science undergraduate administrator and declare on Axess. For additional information, students may visit the Political Science website (https://politicalscience.stanford.edu/undergraduate-major/major/) or office or call (650) 723-1608.

## Degree Requirements

Students majoring in Political Science must complete a minimum of 70 units:


| POLISCI 110C | America and the World Economy |
| :--- | :--- |
| POLISCI 110D | War and Peace in American Foreign Policy |
| POLISCI 120C | American Political Institutions in Uncertain <br> Times |
| POLISCI 121 | Political Power in American Cities |
| POLISCI 148 | Chinese Politics |
| POLISCI 236S | Theories and Practices of Civil Society, <br> Philanthropy, and the Nonprofit Sector |
| POLISCI 299A | Research Design ${ }^{2}$ |

POLISCI 299A Research Design ${ }^{2}$

## Seminar Course

Students must take at least one 5-unit, 200-level or 300-level undergraduate seminar in Political Science. This course may count toward the units taken to satisfy the Primary Track, Secondary Track, or Additional Coursework requirements.

## Total Units

1 The classes that count toward each track can be found below.
2 POLISCI 299A only fulfills the WIM requirement for students who are writing an honors thesis in Political Science.

## Undergraduate Tracks

The tracks for the Political Science undergraduate major and minor are:

- Justice and Law
- International Relations
- Elections, Representation, and Governance
- Political Economy and Development
- Data Science

Political Science majors must select a primary track and a secondary track on which to focus their studies. They must complete at least 25 units of coursework toward the primary track and 15 units toward the secondary track. For the major, up to one course for the primary track and up to one course for the secondary track may be a pre-approved non-Political Science (http:// exploredegrees.stanford.edu/schoolofhumanitiesandsciences/ politicalscience/\#preapprovedcoursestext) course or a petitioned (https://politicalscience.stanford.edu/undergraduate-major/major/) course.

Political Science minors must complete 20 units in one track of their choosing. For the minor, all courses completed toward the track must be Political Science courses and 100 -level or above.

These tracks are not declared in Axess and are not printed on the transcript or diploma.

The classes for each track are listed below.

## Justice and Law

|  |  | Units |
| :---: | :---: | :---: |
| POLISCI 29N |  | 3 |
| POLISCI 31N | Political Freedom: Rights, Justice, and Democracy in the Western Tradition | 3 |
| POLISCI 31Q | Justice and Cities | 3 |
| POLISCI 102 | Introduction to American Politics and Policy: The Good, The Bad, and The Ugly | 4-5 |
| POLISCI 103 | Justice | 4-5 |
| POLISCI 114D | Democracy, Development, and the Rule of Law | 5 |
| POLISCI 122 | Introduction to American Law | 3-5 |
| POLISCI 125P | The First Amendment: Freedom of Speech and Press | 4-5 |


| POLISCI 126P | Constitutional Law | 3 |
| :---: | :---: | :---: |
| POLISCI 127A | Finance, Corporations, and Society | 4 |
| POLISCI 128F |  | 3 |
| POLISCI 128S |  | 5 |
| POLISCI 130 | 20th Century Political Theory. Liberalism and its Critics | 5 |
| POLISCI 131L | Modern Political Thought: Machiavelli to Marx and Mill | 5 |
| POLISCI 132A | The Ethics of Elections | 5 |
| POLISCI 133 | Ethics and Politics of Public Service | -5 |
| POLISCI 1332 | Ethics and Politics in Public Service | 4 |
| POLISCI 134 | Ethics for Activists | 5 |
| POLISCI 134L | Introduction to Environmental Ethics | -5 |
| POLISCI 134P | Contemporary Moral Problems | -5 |
| POLISCI 135 | Citizenship | 5 |
| POLISCI 135D | The Ethics of Democratic Citizenship | 5 |
| POLISCI 136R | Introduction to Global Justice | 4 |
| POLISCI 137A | Political Philosophy: The Social Contract Tradition | 4 |
| POLISCI 182 | Ethics, Public Policy, and Technological Change | 5 |
| POLISCI 221A | American Political Development, 1865present | 3-5 |
| POLISCI 222 S |  | 5 |
| POLISCI 225C | Fixing US Politics: Political Reform in Principle and Practice | 5 |
| POLISCI 225L | Law and the New Political Economy | 3-5 |
| POLISCI 226 | Race and Racism in American Politics | 5 |
| POLISCI 226A | The Changing Face of America | 4-5 |
| POLISCI 228C | Law and Politics of Bureaucracy | 3-5 |
| POLISCI 230A | Classical Seminar. Origins of Political Thought | 3-5 |
| POLISCI 231 | High-Stakes Politics: Case Studies in Political Philosophy, Institutions, and Interests | 3-5 |
| POLISCI $232 T$ | The Dialogue of Democracy | 4-5 |
| POLISCI 233 | Justice and Cities | 5 |
| POLISCI 234 | Democratic Theory | 5 |
| POLISCI 234P | Deliberative Democracy and its Critics | 3-5 |
| POLISCI 236 | Theories and Practices of Civil Society, Philanthropy, and the Nonprofit Sector | 5 |
| POLISCI 236 S | Theories and Practices of Civil Society, Philanthropy, and the Nonprofit Sector | 5 |
| POLISCI 238R | The Greeks and the Rational: Deliberation, Strategy, and Choice in Ancient Greek Political Thought | 3-5 |
| POLISCI 314D | Democracy, Development, and the Rule of Law | 5 |
| POLISCI 325L | Law and the New Political Economy | 3-5 |
| POLISCI 326 | Race and Racism in American Politics | 5 |
| POLISCI 327C | Law of Democracy | 3-5 |
| POLISCI 330A | Classical Seminar: Origins of Political Thought | 3-5 |
| POLISCI 331 | High-Stakes Politics: Case Studies in Political Philosophy, Institutions, and Interests | 3-5 |
| POLISCI 332T | The Dialogue of Democracy | 4-5 |
| POLISCI 334P | Deliberative Democracy and its Critics | -5 |
| POLISCI 336 | Introduction to Global Justice | 4 |


| POLISCI 336S | Justice | $4-5$ |
| :--- | :--- | ---: |
| POLISCI 337A | Political Philosophy: The Social Contract | 4 |
|  | Tradition |  |

## International Relations

|  |  | Units |
| :---: | :---: | :---: |
| POLISCI 10N | International Organizations and the World Order | 3 |
| POLISCI 18N | Civil War and International Politics: Syria in Context | 3 |
| POLISCI 101 | Introduction to International Relations | 5 |
| POLISCI 1012 | Introduction to International Relations | 4 |
| POLISCI 110C | America and the World Economy | 5 |
| POLISCI 110D | War and Peace in American Foreign Policy | 3-5 |
| POLISCI 110G | Governing the Global Economy | 5 |
| POLISCI 110X | America and the World Economy | 5 |
| POLISCI 110Y | War and Peace in American Foreign Policy | 3-5 |
| POLISCI 114D | Democracy, Development, and the Rule of Law | 5 |
| POLISCI 114S | International Security in a Changing World | 5 |
| POLISCI 118P | U.S. Relations with Iran | 5 |
| POLISCI 136R | Introduction to Global Justice | 4 |
| POLISCI 147 | Comparative Democratic Development | 5 |
| POLISCI 149S | Islam, Iran, and the West | 5 |
| POLISCI 211 N | Nuclear Politics | 3-5 |
| POLISCI 213A |  | 5 |
| POLISCI 213E | Introduction to European Studies | 5 |
| POLISCI 214R | Challenges and Dilemmas in American Foreign Policy | 5 |
| POLISCI 215A | Special Topics: State-Society Relations in the Contemporary Arab World-Key Concepts and Debates | 5 |
| POLISCI 216 | State Building | 5 |
| POLISCI 217A | American Foreign Policy: Interests, Values, and Process | 5 |
| POLISCI 242 | Foreign Policy Decision Making in Comparative Perspective | 3 |
| POLISCI 311 N | Nuclear Politics | 3-5 |
| POLISCI 314D | Democracy, Development, and the Rule of Law | 5 |
| POLISCI 314R | Challenges and Dilemmas in American Foreign Policy | 5 |
| POLISCI 336 | Introduction to Global Justice | 4 |
| POLISCI 342 | Foreign Policy Decision Making in Comparative Perspective | 3 |

## Elections, Representation, and Governance

|  |  | Units |  |
| :--- | :--- | ---: | :---: |
| POLISCI 20N | The American Electorate in the Trump Era | 3 |  |
| POLISCI 20Q | Democracy in Crisis: Learning from the <br> Past | 3 |  |
| POLISCI 23Q | Analyzing the 2016 Elections | 3 |  |
| POLISCI 25N | The US Congress in Historical and <br> Comparative Perspective | 3 |  |
| POLISCI 27N | Thinking Like a Social Scientist | 3 |  |
| POLISCI 28N | The Changing Nature of Racial Identity in <br> American Politics | 3 |  |
| POLISCI 29N |  |  |  |


| POLISCI 31N | Political Freedom: Rights, Justice, and Democracy in the Western Tradition | 3 |
| :---: | :---: | :---: |
| POLISCI 72 | Policy, Politics and the 2020 Elections: What 2020 Means for Future Campaigns and Elections | 2 |
| POLISCI 75 | The 2018 Midterm Election: Making Your Voice Heard | 2-3 |
| POLISCI 102 | Introduction to American Politics and Policy: The Good, The Bad, and The Ugly | 4-5 |
| POLISCI 104 | Introduction to Comparative Politics | 5 |
| POLISCI 110D | War and Peace in American Foreign Policy | 3-5 |
| POLISCI 110Y | War and Peace in American Foreign Policy | 3-5 |
| POLISCI 120B | Campaigns, Voting, Media, and Elections | 4-5 |
| POLISCI 120C | American Political Institutions in Uncertain Times | 5 |
| POLISCI 120Z | What's Wrong with American Government? An Institutional Approach | 4 |
| POLISCI 121 | Political Power in American Cities | 5 |
| POLISCI 121L | Racial-Ethnic Politics in US | 5 |
| POLISCI 124L | The Psychology of Communication About Politics in America | 4-5 |
| POLISCI 125M | Latino Social Movements | 5 |
| POLISCI 125P | The First Amendment: Freedom of Speech and Press | 4-5 |
| POLISCI 125S | Chicano/Latino Politics | 5 |
| POLISCI 126P | Constitutional Law | 3 |
| POLISCI 128F |  | 3 |
| POLISCI 128S |  | 5 |
| POLISCI 130 | 20th Century Political Theory: Liberalism and its Critics | 5 |
| POLISCI 131L | Modern Political Thought: Machiavelli to Marx and Mill | 5 |
| POLISCI 132A | The Ethics of Elections | 5 |
| POLISCI 134P | Contemporary Moral Problems | 4-5 |
| POLISCI 134L | Introduction to Environmental Ethics | 4-5 |
| POLISCI 135 | Citizenship | 5 |
| POLISCI 135D | The Ethics of Democratic Citizenship | 5 |
| POLISCI 140P | Populism and the Erosion of Democracy | 5 |
| POLISCI 1435 | Comparative Corruption | 3 |
| POLISCI 147 | Comparative Democratic Development | 5 |
| POLISCI 147B | Gender, Identity, and Politics | 5 |
| POLISCI 147P | The Politics of Inequality | 5 |
| POLISCI 148 | Chinese Politics | 3-5 |
| POLISCI 149T | Middle Eastern Politics | 5 |
| POLISCI 150A | Data Science for Politics | 5 |
| POLISCI 213E | Introduction to European Studies | 5 |
| POLISCI 217A | American Foreign Policy: Interests, Values, and Process | 5 |
| POLISCI 220 | Urban Policy Research Lab | 5 |
| POLISCI 220C | The Politics of the Administrative State | 3-5 |
| POLISCI 220R | The Presidency | 3-5 |
| POLISCI 222 | The Political Psychology of Intolerance | 5 |
| POLISCI 222 S |  | 5 |
| POLISCI 223A | Public Opinion and American Democracy | 5 |
| POLISCI 223B | Money, Power, and Politics in the New Gilded Age | 5 |
| POLISCI 225C | Fixing US Politics: Political Reform in Principle and Practice | 5 |
| POLISCI 226A | The Changing Face of America | 4-5 |


| POLISCI 226T | The Politics of Education | $3-5$ |
| :--- | :--- | ---: |
| POLISCI 228C | Law and Politics of Bureaucracy | $3-5$ |
| POLISCI 234 | Democratic Theory | 5 |
| POLISCI 240A | Democratic Politics | $3-5$ |
| POLISCI 241A | Political Economy of Development | 5 |
| POLISCI 244U | Political Culture | $3-5$ |
| POLISCI 245R | Politics in Modern Iran | 5 |
| POLISCI 246A | Paths to the Modern World: The West in | $3-5$ |
|  | Comparative Perspective |  |
| POLISCI 247G | Governance and Poverty | 5 |
| POLISCI 248S | Latin American Politics | $3-5$ |
| POLISCI 320C | The Politics of the Administrative State | $3-5$ |
| POLISCI 320R | The Presidency | $3-5$ |
| POLISCI 322A | Advances in Political Psychology | $3-5$ |
| POLISCI 324L | The Psychology of Communication About | $4-5$ |
|  | Politics in America | $3-5$ |
| POLISCI 326T | The Politics of Education | $3-5$ |
| POLISCI 327C | Law of Democracy | $3-5$ |
| POLISCI 340A | Democratic Politics | $3-5$ |
| POLISCI 344 | Politics and Geography | $3-5$ |
| POLISCI 344U | Political Culture | $3-5$ |
| POLISCI 348 | Chinese Politics | $3-5$ |
| POLISCI 348S | Latin American Politics | 5 |

## Political Economy and Development

|  |  | Units |
| :---: | :---: | :---: |
| POLISCI 18N | Civil War and International Politics: Syria in Context | 3 |
| POLISCI 24Q | Law and Order | 3 |
| POLISCI 25N | The US Congress in Historical and Comparative Perspective | 3 |
| POLISCI 28N | The Changing Nature of Racial Identity in American Politics | 3 |
| POLISCI 31Q | Justice and Cities | 3 |
| POLISCI 46N | Contemporary African Politics | 3 |
| POLISCI 101 | Introduction to International Relations | 5 |
| POLISCI 101Z | Introduction to International Relations | 4 |
| POLISCI 102 | Introduction to American Politics and Policy: The Good, The Bad, and The Ugly | 4-5 |
| POLISCI 103 | Justice | 4-5 |
| POLISCI 104 | Introduction to Comparative Politics | 5 |
| POLISCI 110C | America and the World Economy | 5 |
| POLISCI 110G | Governing the Global Economy | 5 |
| POLISCI 110X | America and the World Economy | 5 |
| POLISCI 114D | Democracy, Development, and the Rule of Law | 5 |
| POLISCI 118P | U.S. Relations with Iran | 5 |
| POLISCI 120B | Campaigns, Voting, Media, and Elections | 4-5 |
| POLISCI 121 | Political Power in American Cities | 5 |
| POLISCI 121L | Racial-Ethnic Politics in US | 5 |
| POLISCI 122 | Introduction to American Law | 3-5 |
| POLISCI 124L | The Psychology of Communication About Politics in America | 4-5 |
| POLISCI 125M | Latino Social Movements | 5 |
| POLISCI 125S | Chicano/Latino Politics | 5 |
| POLISCI 127A | Finance, Corporations, and Society | 4 |


| POLISCI 137A | Political Philosophy: The Social Contract Tradition | 4 |
| :---: | :---: | :---: |
| POLISCI 141A | Immigration and Multiculturalism | 5 |
| POLISCI 143S | Comparative Corruption | 3 |
| POLISCI 146A | African Politics | 4-5 |
| POLISCI 147 | Comparative Democratic Development | 5 |
| POLISCI 147B | Gender, Identity, and Politics | 5 |
| POLISCI 148 | Chinese Politics | 3-5 |
| POLISCI 149S | Islam, Iran, and the West | 5 |
| POLISCI 149T | Middle Eastern Politics | 5 |
| POLISCI 153 | Thinking Strategically | 5 |
| POLISCI $153 Z$ | Thinking Strategically | 4 |
| POLISCI 212X | Civil War and International Politics: Syria in Context | 5 |
| POLISCI 213E | Introduction to European Studies | 5 |
| POLISCI 216 | State Building | 5 |
| POLISCI 220 | Urban Policy Research Lab | 5 |
| POLISCI 220C | The Politics of the Administrative State | 3-5 |
| POLISCI 220R | The Presidency | 3-5 |
| POLISCI 221A | American Political Development, 1865present | 3-5 |
| POLISCI 223B | Money, Power, and Politics in the New Gilded Age | 5 |
| POLISCI 225L | Law and the New Political Economy | 3-5 |
| POLISCI 231 | High-Stakes Politics: Case Studies in Political Philosophy, Institutions, and Interests | 3-5 |
| POLISCI 232T | The Dialogue of Democracy | 4-5 |
| POLISCI 234P | Deliberative Democracy and its Critics | 3-5 |
| POLISCI 236 | Theories and Practices of Civil Society, Philanthropy, and the Nonprofit Sector | 5 |
| POLISCI 236S | Theories and Practices of Civil Society, Philanthropy, and the Nonprofit Sector | 5 |
| POLISCI 238R | The Greeks and the Rational: Deliberation, Strategy, and Choice in Ancient Greek Political Thought | 3-5 |
| POLISCI 241A | Political Economy of Development | 5 |
| POLISCI 241 S | Spatial Approaches to Social Science | 5 |
| POLISCI 241 T | Political Economy of Gender | 5 |
| POLISCI 244 U | Political Culture | 3-5 |
| POLISCI 245R | Politics in Modern Iran | 5 |
| POLISCI 246A | Paths to the Modern World: The West in Comparative Perspective | 3-5 |
| POLISCI 247A | Games Developing Nations Play | 3-5 |
| POLISCI 247G | Governance and Poverty | 5 |
| POLISCI 248 S | Latin American Politics | 3-5 |
| POLISCI 314D | Democracy, Development, and the Rule of Law | 5 |
| POLISCI 320C | The Politics of the Administrative State | 3-5 |
| POLISCI 320R | The Presidency | 3-5 |
| POLISCI 324L | The Psychology of Communication About Politics in America | 4-5 |
| POLISCI 325L | Law and the New Political Economy | 3-5 |
| POLISCI 327C | Law of Democracy | 3-5 |
| POLISCI 331 | High-Stakes Politics: Case Studies in Political Philosophy, Institutions, and Interests | 3-5 |
| POLISCI 332T | The Dialogue of Democracy | 4-5 |
| POLISCI 334P | Deliberative Democracy and its Critics | 3-5 |


| POLISCI 336S | Justice | $4-5$ |
| :--- | :--- | ---: |
| POLISCI 337A | Political Philosophy: The Social Contract | 4 |
|  | Tradition | $3-5$ |
| POLISCI 344 | Politics and Geography | $3-5$ |
| POLISCI 344U | Political Culture | $3-5$ |
| POLISCI 347A | Games Developing Nations Play | $3-5$ |
| POLISCI 348 | Chinese Politics | $3-5$ |
| POLISCI 348S | Latin American Politics | 5 |
| POLISCI 354 | Thinking Strategically |  |

Data Science

| POLISCI 27N | Thinking Like a Social Scientist | 3 |
| :--- | :--- | ---: |
| POLISCI 141A | Immigration and Multiculturalism | 5 |
| POLISCI 147P | The Politics of Inequality | 5 |
| POLISCI 150A | Data Science for Politics | 5 |
| POLISCI 150B | Machine Learning for Social Scientists | 5 |
| POLISCI 150C | Causal Inference for Social Science | 5 |
| POLISCI 153 | Thinking Strategically | 5 |
| POLISCI 153Z | Thinking Strategically | 4 |
| POLISCI 182 | Ethics, Public Policy, and Technological | 5 |
|  | Change | 5 |
| POLISCI 241S | Spatial Approaches to Social Science | 5 |
| POLISCI 247A | Games Developing Nations Play | $3-5$ |
| POLISCI 251A | Introduction to Machine Learning for Social | 4 |
|  | Scientists | $3-5$ |
| POLISCI 343A | Field Methods | $3-5$ |
| POLISCI 344 | Politics and Geography | $3-5$ |
| POLISCI 347A | Games Developing Nations Play | 5 |
| POLISCI 354 | Thinking Strategically | 5 |
| POLISCI 355A | Data Science for Politics | 5 |
| POLISCI 355B | Machine Learning for Social Scientists | 5 |
| POLISCI 355C | Causal Inference for Social Science | 5 |
| POLISCI 356A | Formal Theory I: Game Theory for Political | $3-5$ |
|  | Science |  |
| POLISCI 356B | Formal Theory II: Models of Politics | $3-5$ |
| POLISCI 358 | Data-driven Politics | $3-5$ |

## Additional Requirements and Policies

- Students may count up to 25 units of coursework from outside the Political Science Department toward the Political Science major. Preapproved non-Political Science courses (p. 25) are listed below and can be applied directly to the major. Courses from outside of the department that have not been pre-approved can be petitioned toward the major using a petition form, available on the Political Science website (https://politicalscience.stanford.edu/undergraduatemajor/major/). Course petitions are reviewed and, if appropriate, approved by the Director of Undergraduate Studies. Petitions must be submitted to the undergraduate administrator within one quarter of course completion or within one quarter of declaring the major. Preapproved and petitioned courses may be applied to the major in any combination of the following ways:
a. Up to one pre-approved or petitioned course may count toward the primary track.
b. Up to one pre-approved or petitioned course may count toward the secondary track.
c. One pre-approved course may count toward the methods course requirement. STATS 60, STATS 101, ECON 102A, and CS 106A are courses from outside the Political Science Department and count toward the 25-unit limit. POLISCI 150A does not count toward the 25-unit limit.
d. Pre-approved and petitioned courses may count toward the additional coursework requirement.
- BOSP and SIW courses are non-Political Science courses and count toward the 25 -unit limit listed above. Some have been preapproved (p. 25) while others require a petition (available on the Political Science website (https://politicalscience.stanford.edu/ undergraduate-major/major/)).
- Directed readings and Oxford tutorials require a petition (available on the Political Science website (https://politicalscience.stanford.edu/ undergraduate-major/major/)) and may only be applied toward the additional coursework requirement. No more than 10 combined units of directed reading and Oxford tutorial units may count toward the required 70 units for the Political Science major.
- No more than two Stanford Introductory Seminar courses (http://exploredegrees.stanford.edu/undergraduateeducation/ introductorystudies/\#introsemstext) can be applied toward the 70 unit major requirement.
- All courses applied toward the major must be completed for a letter grade of 'C' or higher.
- Honors courses from outside of Political Science cannot count toward the major or the WIM requirement.


## Double Counting Courses

- Students pursuing a double major (http:// exploredegrees.stanford.edu/undergraduatedegreesandprograms/ \#themajortext) may not double count any courses in the Political Science major aside from POLISCI 1 The Science of Politics and the methods course.
- Students pursuing a primary/secondary major (http:// exploredegrees.stanford.edu/undergraduatedegreesandprograms/ \#themajortext) may double count up to 30 units in the Political Science major.
- Students completing a minor in another department may not double count any courses in the Political Science major aside from POLISCI 1 The Science of Politics and the methods course.


## Pre-Approved Non-Political Science Courses

Pre-approved Courses

|  |  | Units |
| :--- | :--- | ---: |
| AFRICAST 111 | Education for All? The Global and Local in |  |
| Public Policy Making in Africa |  |  |$\quad 3-5$


| ECON 52 | Economic Analysis III | 5 |
| :---: | :---: | :---: |
| ECON 102A | Introduction to Statistical Methods (Postcalculus) for Social Scientists | 5 |
| ECON 102B | Applied Econometrics | 5 |
| ECON 106 | World Food Economy | 5 |
| ECON 155 | Environmental Economics and Policy | 5 |
| ECON 180 | Honors Game Theory | 5 |
| EDUC 178 | Latino Families, Languages, and Schools | 3-5 |
| EDUC 197 | Gender and Education in Global and Comparative Perspectives | 4 |
| EDUC 220D | History of School Reform: Origins, Policies, Outcomes, and Explanations | 3-5 |
| HISTORY 102 | History of the International System since 1914 | 5 |
| HISTORY 106A | Global Human Geography: Asia and Africa | 5 |
| HISTORY 106B | Global Human Geography: Europe and Americas | 5 |
| HISTORY 152 | History of American Law | 5 |
| HISTORY 153 | Creation of the Constitution | 5 |
| HISTORY 158C | History of Higher Education in the U.S. | 3-5 |
| HISTORY 187 | The Islamic Republics: Politics and Society in Iran, Afghanistan and Pakistan | 5 |
| HISTORY 261G | Presidents and Foreign Policy in Modern History | 5 |
| HUMBIO 120 | Health Care in America: An Introduction to U.S. Health Policy | 4 |
| HUMBIO 120A | American Health Policy | 3 |
| HUMBIO 129 S | Global Public Health | 3 |
| HUMBIO 172B | Children, Youth, and the Law | 3 |
| HUMBIO 173 |  | 5 |
| INTLPOL 217 | The Future of Global Cooperation | 3-4 |
| INTLPOL 219 |  | 3 |
| INTLPOL 244 | U.S. Policy toward Northeast Asia | 4 |
| INTLPOL 246 | China's Foreign Policies: Objectives, Instruments, and Impacts | 4 |
| INTLPOL 280 | Transitional Justice, Human Rights, and International Criminal Tribunals | 3-5 |
| INTNLREL 123 | The Future of the European Union: Challenges and Opportunities | 5 |
| INTNLREL 140A | International Law and International Relations | 4-5 |
| INTNLREL 140C | The U.S., U.N. Peacekeeping, and Humanitarian War | 5 |
| INTNLREL 142 | Challenging the Status Quo: Social Entrepreneurs Advancing Democracy, Development and Justice | 3-5 |
| INTNLREL 182 | The Great War | 5 |
| LAW 2519 | Water Law | 3 |
| MS\&E 93Q |  | 3 |
| MS\&E 180 | Organizations: Theory and Management | 4 |
| MS\&E 193 | Technology and National Security: Past, Present, and Future | 3-4 |
| OSPBER 77 | "Ich bin ein Berliner" Lessons of Berlin for International Politics | 4-5 |
| OSPBER 79 | Political Economy of Germany in Europe: an Historical-Comparative Perspective | 4-5 |
| OSPBER 82 | Globalization and Germany | 4-5 |
| OSPBER 126X | A People's Union? Money, Markets, and Identity in the EU | 4-5 |
| OSP |  |  |


| OSPCPTWN 45 | Transitional Justice and Transformation Debates in South Africa | 4 |
| :---: | :---: | :---: |
| OSPFLOR 78 | The Impossible Experiment: Politics and Policies of the New European Union | 5 |
| OSPOXFRD 22 |  | 4-5 |
| OSPPARIS 32 | French History and Politics: Understanding the Present through the Past | 5 |
| OSPPARIS 122X | Europe and its Challenges Today | 4 |
| OSPSANTG 116X | Modernization and its Discontents: Chilean Politics at the Turn of the Century | 5 |
| PHIL 2 | Introduction to Moral Philosophy | 5 |
| PHIL 20S | Introduction to Moral Philosophy | 3 |
| PUBLPOL 122 | BioSecurity and Pandemic Resilience | 4-5 |
| PUBLPOL 132 | The Politics of Policy Making | 3 |
| PUBLPOL 135 | Regional Politics and Decision Making in Silicon Valley and the Greater Bay Area | 4 |
| PUBLPOL 154 | Politics and Policy in California | 5 |
| PUBLPOL 156 | Health Care Policy and Reform | 5 |
| PUBLPOL 353A | Science and Technology Policy | 4-5 |
| SIW 103 | Economic Growth and Development Patterns, Policies, and Prospects | 5 |
| SIW 105 | Education Policy | 5 |
| SIW 106 | Criminal Justice Policy | 5 |
| SIW 107 | Civil Rights Law | 5 |
| SIW 109 |  | 5 |
| SIW 119 | U. S. and Europe: Cooperation or Competition? | 5 |
| SIW 156 | Washington Policymaking: A USER'S GUIDE | 5 |
| SIW $198 Z$ | International Economic Policy | 5 |
| SOC 111 | State and Society in Korea | 4 |
| SOC 117A | China Under Mao | 5 |
| SOC 118 | Social Movements and Collective Action | 4 |
| SOC 135 | Poverty, Inequality, and Social Policy in the United States | 3-4 |
| SOC 136 | Sociology of Law | 4 |
| SOC 140 | Introduction to Social Stratification | 3 |
| SOC 145 | Race and Ethnic Relations in the USA | 4 |
| STATS 60 | Introduction to Statistical Methods: Precalculus | 5 |
| STATS 110 | Statistical Methods in Engineering and the Physical Sciences | 5 |
| THINK 19 | Rules of War | 4 |
| THINK 42 | Thinking Through Africa: Perspectives on Health, Wealth, and Well-Being | 4 |
| THINK 47 | Inventing Government: Ancient and Modern | 4 |
| THINK 51 | The Spirit of Democracy | 4 |
| URBANST 112 | The Urban Underclass | 4 |

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On April 16, 2015, the Senate of the Academic Council approved the Bachelor of Science in Geological Sciences. Students who declared the Bachelor of Science in Geological and Environmental Sciences have the option of changing the name of their degree to Geological Sciences. Degree requirements remain the same.

## Bachelor of Science in Geological Sciences

The major consists of five interrelated components:

1. Earth Sciences Fundamentals-Students must complete a set of core courses that introduce the properties of Earth materials, the processes that change the Earth, and the timescales over which those processes act. These courses provide a broad foundational knowledge that can lead to specialization in many different disciplines of the geological and environmental sciences.
2. Quantitative and Analytical Skills-Students must complete adequate course work in mathematics, chemistry, and physics or biology. In addition, they learn analytical techniques specific to the Earth sciences through the laboratory component of courses.
3. Advanced Course Work and Research-Students gain breadth and depth in upper-level electives and are encouraged to apply these skills and knowledge to problems in the Earth sciences through directed research.
4. Field Research Skills-Most GS courses include field trips and/or field-based projects. In addition, students must complete at least six weeks of field research through departmental offerings (Introduction to Field Methods (GEOLSCI 105) and GEOLSCI 190 Research in the Field), in which they learn and apply field techniques, field mapping, and the prepare a written report.
5. Communication Skills-To fulfill the Writing in the Major requirement, students take a writing-intensive senior seminar (GEOLSCI 150 Senior Seminar. Issues in Earth Sciences), in which they give both oral and written presentations that address current research in the earth sciences.

The major requires at least 93 units; letter grades are required in all courses if available. Students interested in the GS major should consult with the undergraduate program coordinator for information about options within the curriculum.

## Course Sequence (102-120 units total)

## Core Requirement

Students are required to take all of the following:

|  |  | Units |
| :--- | :--- | ---: |
| GEOLSCI 1 | Introduction to Geology | 5 |
| GEOLSCI 4 | Coevolution of Earth and Life | 4 |
| GEOLSCI 90 |  |  |
| GEOLSC 102 |  |  |
| GEOLSCI 103 | Earth Materials: Rocks in Thin Section |  |
| GEOLSCI 104 |  | 3 |
| GEOLSCI 105 | Introduction to Field Methods | 3 |
| GEOLSCI 106 | Sediments: The Book of Earth's History | 3 |
| GEOLSC 110 | Our Dynamic West | 5 |
| GEOLSCI 150 | Senior Seminar: Issues in Earth Sciences | 3 |
| GEOLSCI 190 | Research in the Field | $3-6$ |
| Total Units |  | $29-32$ |

## Breadth in the Discipline Requirement

To gain understanding of the breadth of subject areas within the geological sciences, students are required to take one course from each of the following five groups ( $15-23$ units).

## Surface and Hydrologic Processes

| GEOLSCI 118X | Shaping the Future of the Bay Area |
| :--- | :--- |
| or GEOLSCI 121 | What Makes a Habitable Planet? |
| or ESS 117 | Earth Sciences of the Hawaiian Islands |
| or ESS 155 | Science of Soils |
| or ESS 220 | Physical Hydrogeology |
| or ESS 256 | Soil and Water Chemistry |
| or GEOPHYS 120 | Ice, Water, Fire |

or GEOPHYS 190 Near-Surface Geophysics: Imaging Groundwater Systems

## Biogeosciences

| GEOLSCI 123 | Evolution of Marine Ecosystems | Units |
| :---: | :--- | ---: |
| or GEOLSCI 128 | Evolution of Terrestrial Ecosystems | $3-4$ |
| or GEOLSCI 233A | Microbial Physiology |  |
| or ESS 158 | Geomicrobiology |  |

## Earth Materials and Geochemistry

| GEOLSCI 135 | Sedimentary Geochemistry and Analysis | Units |
| :---: | :--- | ---: |
| or GEOLSCI 163 | Introduction to Isotope Geochemistry |  |
| or GEOLSCI 180 | Igneous Processes |  |
| or CEE 177 | Aquatic Chemistry and Biology |  |
| or ESS 152 | Marine Chemistry |  |

## Tectonics and Geophysics

| GEOPHYS 120 | Ice, Water, Fire | Units |
| :---: | :--- | ---: |
| or GEOPHYS 110 | Introduction to the Foundations of Contemporary |  |
|  | Geophysics |  |
| or GEOPHYS 130 | Introductory Seismology |  |
| or GEOLSCI 122 | Planetary Systems: Dynamics and Origins |  |
| or GEOPHYS 150 | Geodynamics: Our Dynamic Earth |  |
| or GEOPHYS 182 | Reflection Seismology |  |

## Geospatial Statistics and Computer Science

| CS 106A | Programming Methodology | Units |
| :---: | :--- | ---: |
| or ENERGY 160 | Uncertainty Quantification in Data-Centric <br> Simulations | $3-5$ |
| or ESS 164 | Fundamentals of Geographic Information Science <br> (GIS) |  |
| or GEOPHYS 112 | Exploring Geosciences with MATLAB |  |

## Additional Field Opportunities (optional)

|  |  | Units |
| :--- | :--- | ---: |
| GEOLSCI 5 | Living on the Edge | 1 |
| GEOLSCI 135A | Sedimentary Geochemistry Field Trip | 1 |
| OSPAUSTL 10 | Coral Reef Ecosystems | 3 |

## Depth in the Discipline Requirement (10 Units)

To allow students to go into greater depth in the major, students must complete at least 10 units of electives drawn primarily from the list above and other upper-level courses in GS (including graduate-level courses). Additional courses in Geophysics, ESS, and ERE may be counted towards the elective units if they allow a student to pursue a topic in depth; these options should be discussed with an adviser. A maximum of 3 elective units may be fulfilled by:

|  |  | Units |
| :--- | :--- | ---: |
| GEOLSCI 192 | Undergraduate Research in Geological <br> Sciences | $1-10$ |
| GEOLSCI 197 | Senior Thesis | $3-5$ |
| GEOLSCI 198 | Special Problems in Geological Sciences | $1-10$ |
| Advanced Seminars |  |  |

Honors research (GEOLSCI 199 Honors Program) may fulfill up to 4 elective units.

Required Supporting Mathematics (20 Units)
Choose one of the following equivalent series:

|  | Units |  |
| :---: | :---: | :---: |
| MATH 19 | Calculus | 10 |
| \& MATH 20 | and Calculus |  |
| \& MATH 21 | and Calculus |  |
| or a score of 4-5 on the Calculus BC exam |  |  |
| And at least TWO of the following: |  |  |
| CME 100 | Vector Calculus for Engineers | 5 |
| or MATH 51 | Linear Algebra, Multivariable Calculus, Applications |  |
| CME 102 | Ordinary Differential Equations for Engineers | 5 |
| or MATH 52 | Integral Calculus of Several Variables |  |
| CME 104 | Linear Algebra and Partial Differential Equations for Engineers | 5 |
| or MATH 53 | Ordinary Differential Equations with Lin |  |

## Required Supporting Sciences (16-24 Units)

Advanced placement credit may be accepted for these courses as determined by the relevant departments


PHYSICS 41
\& PHYSICS 45
\& PHYSICS 46

Mechanics
and Light and Heat
and Light and Heat Laboratory

## Field Research

Field research skills are a critical component of the undergraduate curriculum in GS. The conventional and most straightforward way for undergraduates to meet the field requirement is to take the GS courses (GEOLSCI 105 Introduction to Field Methods and GEOLSCI 190 Research in the Field):

- GEOLSCI 105 Introduction to Field Methods, is a two-week introduction to field techniques and geologic mapping that is taught every year in the White Mountains of eastern California prior to the start of Autumn Quarter in September. This course gives students the tools to undertake geologic research in the field. GEOLSCI 105 is required of all GS majors and is the framework upon which all subsequent undergraduate field-related instruction is based.
- GEOLSCI 190 Research in the Field, gives GS undergraduates additional training in field research. This course provides undergraduates with a team-based experience of collecting data to answer research questions and is directed by faculty and graduate students. Offered in June and/or September.

By taking GEOLSCI 105 and two iterations of GEOLSCI 190, GS undergraduates develop the broad experience and confidence necessary to go out and evaluate a geological or environmental geology question by collecting field-based data. The main goal is that, upon graduation, GS undergraduates will be able to plan and execute independent field research.

GEOLSCI 190 can also be satisfied by enrolling in a single four-tosix week geology field camp offered by another institution. This externally administered experience can substitute for two three-week GS 190 courses, subject to approval by the Undergraduate Curriculum Committee.

## Engineering Geology and Hydrogeology Undergraduate Specialized Curriculum

The Engineering Geology and Hydrogeology curriculum is intended for undergraduates interested in the application of geological and engineering data and principles to the study of rock, soil, and water to recognize and interpret geological and environmental factors affecting engineering structures and groundwater resources. Students learn to characterize and assess the risks associated with natural geological hazards, such as landslides and earthquakes, and with groundwater flow and contamination. The curriculum prepares students for graduate programs and professional careers in engineering, environmental geology, geology, geotechnical engineering, and hydrogeology.

GS majors who elect the Engineering Geology and Hydrogeology curriculum are expected to complete a core course sequence and a set of courses in supporting sciences and mathematics. The core courses come from Earth Sciences and Engineering. Any substitutions for core courses must be approved by the faculty adviser and through a formal petition to the undergraduate program director. In addition, four elective courses, consistent with the core curriculum and required of all majors, are to be chosen with the advice and consent of the adviser. Typically, electives are chosen from the list below. Letter grades are required if available.

## Course Sequence (100-113 Units Total)

Required Geological Sciences (26-27 Units)

GEOLSCI 1
GEOLSCI 90

| GEOLSCI 102 |  |  |
| :--- | :--- | ---: |
| GEOLSCI 104 <br> or ESS 155 | Science of Soils | $0-4$ |
| GEOLSCI 150 | Senior Seminar. Issues in Earth Sciences | 3 |
| ENERGY 160 | Uncertainty Quantification in Data-Centric <br> Simulations | 3 |
| or STATS 110 | Statistical Methods in Engineering and the |  |
| or CEE 203 | Physical Sciences |  |
| or CME 106 | Probabilistic Models in Civil Engineering <br> Introduction to Probability and Statistics for <br> Engineers |  |
| ESS 220 | Physical Hydrogeology |  |
| or GEOPHYS 120 | Ice, Water, Fire |  |

## Required Engineering (14-16 Units)

| CEE 101A | Mechanics of Materials | 4 |
| :--- | :--- | ---: |
| or CEE 177 | Aquatic Chemistry and Biology |  |
| CEE 101B | Mechanics of Fluids | 4 |
| CS 106A | Programming Methodology | $3-5$ |
| ENGR 90 | Environmental Science and Technology | 3 |
| Total Units |  | $14-16$ |

## Required Supporting Sciences and Mathematics (37-42 Units)



## Breadth (15-20 Units)

Select one course from each of the five topics listed below. Courses listed as options in multiple categories (either required foundations or breadth requirements) can only be used to fulfill one requirement. Students are encouraged to work with their academic advisor to develop cross-cutting themes among their breadth requirements. Examples of cross-cutting themes could include: Earth and Energy Resources, Natural Hazards, Coastal Processes, Freshwater, etc.

## Atmosphere and Ocean Dynamics

## CEE 172

or ESS 141
Air Quality Management

> Units

Remote Sensing of the Oceans
or EARTHSYS 146AAtmosphere, Ocean, and Climate Dynamics: The Atmospheric Circulation
or EARTHSYS 146BAtmosphere, Ocean, and Climate Dynamics: the Ocean Circulation
or ESS 148 Introduction to Physical Oceanography
or ESS 151 Biological Oceanography
or ESS 152 Marine Chemistry

## Biogeosciences

| CEE 177 | Aquatic Chemistry and Biology | Units |
| :--- | :--- | ---: |
| or CHEMENG 174 | Environmental Microbiology I | $3-4$ |
| or EARTHSYS 111 | Biology and Global Change |  |
| or EARTHSYS 151 | Biological Oceanography |  |
| or EARTHSYS 158 | Geomicrobiology |  |
| or GEOLSCI 123 | Evolution of Marine Ecosystems |  |
| or GEOLSCI 128 | Evolution of Terrestrial Ecosystems |  |
| or GEOLSCI 233A | Microbial Physiology |  |

Hydrological Processes

|  | Units |
| :---: | :---: |
| CEE 166A | Watershed Hydrologic Processes and Models |
| or CEE 166B | Water Resources and Hazards |
| or ENERGY 121 | Fundamentals of Multiphase Flow |
| or ENERGY 153 | Carbon Capture and Sequestration |
| or GEOPHYS 181 | Fluids and Flow in the Earth: Computational Methods |
| or GEOPHYS 190 | Near-Surface Geophysics: Imaging Groundwater Systems |
| Geological and Geophysical Sciences |  |
|  | Units |
| GEOLSCI 104 | 3-4 |
| or GEOLSCI 105 | Introduction to Field Methods |
| or GEOLSCI 106 | Sediments: The Book of Earth's History |
| or GEOLSCI 110 | Our Dynamic West |
| or GEOLSCI 118X | Shaping the Future of the Bay Area |
| or GEOLSCI 180 | Igneous Processes |
| or GEOPHYS 110 | Introduction to the Foundations of Contemporary Geophysics |
| or GEOPHYS 120 | Ice, Water, Fire |
| or GEOPHYS 130 | Introductory Seismology |
| or GEOPHYS 150 | Geodynamics: Our Dynamic Earth |
| or ENERGY 120 | Fundamentals of Petroleum Engineering |

Surface and Environmental Processes

|  |  | Units |
| :--- | :--- | ---: |
| CEE 101C | Geotechnical Engineering | $3-4$ |
| or CEE 171 |  |  |
| or EARTHSYS 142 | Remote Sensing of Land |  |
| or ESS 117 | Earth Sciences of the Hawaiian Islands |  |
| or ESS 256 | Soil and Water Chemistry |  |
| or ESS 164 | Fundamentals of Geographic Information Science |  |
| (GIS) |  |  |

or GEOPHYS 190 Near-Surface Geophysics: Imaging Groundwater Systems

## Suggested Electives (up to 8 Units)

Breadth electives may be relevant courses from breadth areas listed above and not used toward the breadth or core requirements, IntroSems (List 1 below), or Overseas/Off-Campus classes (List 2 below).

| Units |  |
| :---: | :---: |
| List 1. Relevant Introductory Seminars or courses |  |
| CEE 64 | Air Pollution and Global Warming: History, Science, and Solutions |
| or CEE 29N (NO LO |  |
| or EARTHSYS 41 N | The Global Warming Paradox |
| or EARTHSYS 44 N | The Invisible Majority: The Microbial World That Sustains Our Planet |
| or EARTHSYS 46 N | Exploring the Critical Interface between the Land and Monterey Bay: Elkhorn Slough |
| or EARTHSYS 46 Q | Environmental Impact of Energy Systems: What are the Risks? |
| or EARTHSYS 56 Q |  |
| or GEOPHYS 20N | Predicting Volcanic Eruptions |
| or BIO 35N | Climate change ecology: Is it too late? |
| List 2. Off-campus courses |  |
| EARTHSYS 117 | Earth Sciences of the Hawaiian Islands 3-5 |
| or ESS 101 | Environmental and Geological Field Studies in the Rocky Mountains |
| or GEOLSCI 190 | Research in the Field |
| or OSPMADRD 79 |  |
| or OSPAUSTL 10 | Coral Reef Ecosystems |
| or OSPAUSTL 25 (\} |  |
| or OSPAUSTL 30 (\} |  |
| or BIOHOPK 163H | Oceanic Biology |
| or BIOHOPK 172H |  |
| or BIOHOPK 182H | Stanford at Sea |
| or OSPSANTG 58 | Global Change in Chile |

## Honors Program

The honors program provides an opportunity for year-long independent study and research on a topic of special interest, culminating in a written thesis. Students select research topics in consultation with the faculty adviser of their choosing. Research undertaken for the honors program may be of a theoretical, field, or experimental nature, or a combination of these approaches. The honors program is open to students with a GPA of at least 3.5 in GS courses and 3.0 in all University course work. Modest financial support is available from several sources to help defray laboratory and field expenses incurred in conjunction with honors research. Interested students must submit an application, including a research proposal, to the department by the end of their junior year.

Upon approval of the research proposal and entrance to the program, course credit for the honors research project and thesis preparation is assigned by the student's faculty adviser within the framework of GEOLSCI 199 Honors Program; the student must complete a total of 9 units over the course of the senior year. Up to 4 units of GEOLSCI 199 may be counted towards the elective requirement, but cannot be used as a substitute for regularly required courses.

Both a written and oral presentation of research results are required. The thesis must be read, approved, and signed by the student's faculty adviser and a second member of the faculty. In addition, honors students must participate in the GS Honors Symposium in which they present their research to the broader community. Honors students in GS are also
eligible for the Firestone medal, awarded by Undergraduate Advising and Research (http://ual.stanford.edu/) for exceptional theses.

## Bachelor of Arts

The department offers a Bachelor of Arts degree with the following options:

- Bachelor of Arts in East Asian Studies
- Bachelor of Arts in East Asian Studies, China Subplan
- Bachelor of Arts in East Asian Studies, Japan Subplan
- Bachelor of Arts in East Asian Studies, Korea Subplan

As of September 2016, the department no longer offers the following degrees:

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- Bachelor of Arts in Chinese (replaced by Bachelor of Arts in East
    Asian Studies, China Subplan)
- Bachelor of Arts in Japanese (replaced by Bachelor of Arts in East Asian Studies, Japan Subplan)
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Students who previously enrolled in those degrees may choose to complete the major, following the requirements stated in previous Stanford Bulletins (http://exploredegrees.stanford.edu/archive/\#text). Check with the department for further clarification.

## Bachelor of Arts in East Asian Studies

Majors in East Asian Studies begin or continue the mastery of Chinese, Japanese, or Korean. Within the humanities or social sciences, they may focus on a particular sub-region, for example, Japan; South China, Hong Kong, and Taiwan; or western China and Central Asia; or a substantive issue involving the region as a whole, such as environmental protection, public health, rural development, historiography, cultural expression, or religious beliefs. The major seeks to reduce the complexity of a region to intellectually manageable proportions and illuminate the interrelationships among the various facets of society.

Potential majors should declare by the end of the sophomore year on Axess, and must meet with the student services officer (SSO) or Director of Undergraduate Studies (DUS) to discuss and submit a proposal to complete the East Asian Studies major. The major declaration request will not be approved on Axess until a proposal has been submitted and approved. Majors must complete at least 75 units of course work on China, Japan, and/or Korea in addition to a 3 unit EALC 198 Senior Colloquium. Courses to be credited toward major requirements must be completed with a letter grade of ' C ' or better.

The following requirements are in addition to the University's basic requirements for the bachelor's degree (http:// exploredegrees.stanford.edu/undergraduatedegreesandprograms/ \#bachelorstext). Letter grades are mandatory for required courses.

## Requirements

## I. Language

Proficiency in Chinese, Japanese, or Korean language at the second-year level or above, to be met either by coursework or examination. Students who meet the language proficiency requirement through examination are still expected to: 1) take an additional 15 units of language at a higher level, 2) enroll in literature courses taught in the language, 3 ) complete another first-year language classes in an another Asian language. No more than 30 units of language courses are counted toward the major.
II. Area Courses

Complete three area courses, one in each category below: Humanities, History, Social Sciences. Courses listed are examples and not exhaustive; if uncertain whether a particular course fits into one of these categories, contact the department to check.
A. Humanities

| CHINA 153 | Chinese Bodies, Chinese Selves |
| :--- | :--- |
| JAPAN 124 | Manga as Literature |
| JAPAN 284 | Aristocrats, Warriors, Sex Workers, and <br> Barbarians: Lived Life in Early Modern <br> Japanese Painting |
| KOREA 101N | Kangnam Style: K-pop and the <br> Globalization of Korean Soft Power |
| KOREA 121 | Doing the Right Thing: Ethical Dilemmas in <br> Korean Film |
| RELIGST 50 | Exploring Buddhism |
| RELIGST 55 | Exploring Zen Buddhism |
| RELIGST 56 | Exploring Chinese Religions |
| B. History | How Is a Buddhist |
| HISTORY 11SC | Modern Korean History |
| HISTORY 95 | Global Human Geography: Asia and Africa |
| HISTORY 106A | Modern Korean History |
| HISTORY 195 | Culture and Religions in Korean History |
| HISTORY 292F | C.Social Sciences |
| EASTASN 217 | Health and Healthcare Systems in East <br> Asia |
| JAPAN 151 | Japanese Business Culture and Systems |
| POLISCI 148 | Chinese Politics |
| SOC 116 | Chinese Organizations and Management |
| SOC 117A | China Under Mao |
| SOC 167A | Asia-Pacific Transformation |

## III. Substantive Concentration

Complete four courses with a thematic coherence on East Asia, one of which must be a seminar above the $100-$ level. Examples include China, Japan, or Korea; or, in recognition of the new subregions which are emerging, South China and Taiwan, or Central Asia. Examples include:

- East Asian religions and philosophies
- Culture and society of modern Japan
- Ethnic identities in East Asia
- Arts and literature in late imperial China
- Foreign policy in East Asia
- Social transformation of modern Korea
- China's political economy

See ExploreCourses under CHINA, EASTASN, JAPAN, KOREA, and EALC or other relevant departments.

## IV. Capstone Essay

Submit a final paper - Capstone Essay ( 7,500 words) or Honors Thesis ( $\sim 15,000$ words) and present the research to EALC peers and faculty.
The topic should be built upon the student's thematic interest.
Majors are required to take the Senior Colloquium course in
Winter Quarter of the Senior year, and enroll in at least one Senior Research course (CHINA/JAPAN/KOREA 198C or CHINA/JAPAN/ KOREA 198H) with their research adviser in the the senior year.

| EALC 198 | Senior Colloquium |
| :--- | :--- |
| CHINA 198C | Senior Research |
| JAPAN 198C | Senior Research |
| KOREA 198C | Senior Research |
| CHINA 198H | Senior Research |

## JAPAN 198H Senior Research <br> KOREA 198H Senior Research

A faculty adviser for the capstone essay must be finalized no later than the second week of the Autumn Quarter of senior year.
Senior Capstone and Honors Thesis Presentations will be held in the Spring Quarter; students must present as part of their final project.

## V. Overseas Studies

Majors must study abroad for at least one quarter overseas in the country of focus.
If the abroad program is not through the Bing Overseas Studies Program, students should consult with the Dept SSO or DUS prior to studying abroad.

## VI. Writing in the Major

An East Asian Studies course that satisfies the University
Writing in the Major requirement (WIM) should be completed
before beginning the senior capstone essay or honors thesis.
Depending on the country of focus students should choose from the following 3 WIM courses:
Students may enroll in multiple WIM courses, but indicate the primary course counted as 'WIM.'

| CHINA 111 | Literature in 20th-Century China |
| :--- | :--- |
| JAPAN 138 | Introduction to Modern Japanese Literature <br> and Culture |
| KOREA 120 | Narratives of Modern and Contemporary <br> Korea |

## VII. Unit Minimum

The courses taken for the major must add up to at least 78 units, comprised of the 3 unit Senior Colloqium and at least 75 additional units, all taken for a letter grade. Courses must be at least 3 units and taken with a letter grade to be counted towards the degree.
Majors are encouraged to distribute their coursework among at least three disciplines and two subregions in Asia. The subregions need not be traditionally defined.

## Honors Program

Majors with an overall grade point average (GPA) of 3.5 may apply for the honors program by submitting a senior thesis proposal to the honors committee during the Winter or Spring Quarter of the junior year. The proposal must include:

- a thesis outline
- a list of all relevant courses the student has taken and plans to take; one advanced-level colloquium or seminar dealing with China is required
- a preliminary reading list including a work or works in Chinese, Japanese, or Korean
- the name of a faculty member who has agreed to act as the honors topic adviser.

Students must discuss the honors project with the DUS and receive approval before conducting honors research. Without approval, students should plan to complete the capstone essay.

If the proposal is approved, research begins in Spring Quarter of the junior year, or by Autumn Quarter at the latest, when the student enrolls in 2-5 units of credit for senior research. In Winter Quarter, students enroll for 2-5 units in Senior Research (CHINA 198H Senior Research, JAPAN 198H Senior Research, or KOREA 198H Senior Research) with the thesis supervisor while writing the thesis, and the finished essay (normally about 15,000 words) is submitted to the committee no later than April 15 of the senior year. Students enroll in the Senior Colloquium, EALC 198 Senior Colloquium, in the senior year to polish and present
their theses (instead of writing a capstone essay). Eight to eleven units of credit are granted for honors course work and the finished thesis.

## Bachelor of Arts in East Asian Studies, China Subplan

The Bachelor of Arts in East Asian Studies, China Subplan, offers students the ability to study East Asia with a special focus on Chinese culture and language. The Bachelor of Arts in East Asian Studies, China Subplan, replaced the department's Bachelor of Arts in Chinese. Students currently pursuing the Bachelor of Arts in Chinese may choose to continue his or her plan of study, or opt to complete the Bachelor of Arts in East Asian Studies, China Subplan requirement instead. Note: Once students drop the Bachelor of Arts in Chinese on Axess, they cannot reenroll/declare under the Bachelor of Arts in Chinese again. Consult the Director of Undergraduate Studies or student services officer for more clarification.

The following requirements are in addition to the University's basic requirements for the bachelor's degree (http:// exploredegrees.stanford.edu/undergraduatedegreesandprograms/ \#bachelorstext). Letter grades are mandatory for required courses. The following courses, as well as their prerequisites, must be completed with a grade point average (GPA) of 2.0 or better.

## Requirements

## I. Gateway Courses

Students must take two gateway courses appropriate to the East Asian Studies, China Subplan. These Gateway courses should have a focus on East Asian culture ("East Asian Gateway Course Cluster") and/or Chinese culture ("Gateway Course Cluster for the China Subplan").
The courses listed below are examples and not exhaustive. At least one of the two courses chosen must be taught by the department. Students pursuing the EAS-China Subplan major should consult with the DUS or SSO to make sure that courses fit under these categories.

| East Asian Gateway Course Cluster |  |
| :--- | :--- |
| EASTASN 97 | The International Relations of Asia since <br> World War II |
| ECON 124 | Economic Development and Challenges of <br> East Asia |
| HISTORY 92A | The Historical Roots of Modern East Asia |
| RELIGST 55 | Exploring Zen Buddhism |
| SOC 167A | Asia-Pacific Transformation |
| THINK 53 | Food Talks: The Language of Food |
| Gateway Course Cluster for China Subplan |  |
| CHINA 110 | How to Be Modern in China: A Gateway to <br> the World Course |
| CHINA 168 | The Chinese Family |
| ESF 9 | Education as Self-Fashioning: Chinese <br> Traditions of the Self |
| or ESF 9A | Education as Self-Fashioning: Chinese Traditions <br> of the Self |
| POLISCI 148 | Chinese Politics <br> RELIGST 56 |
| Exploring Chinese Religions |  |
| SOC 116 | Chinese Organizations and Management <br> SOC 117A |
| China Under Mao |  |

[^0]Students must be proficient in modern Chinese at Stanford's third-year level. Language assessment exams are offered by the Language Center to determine language proficiency.
Students may select different series (see below) for learning the modern Chinese language, and continue until completion of third-year modern Chinese. Determine the appropriate series after taking the Placement Exam and consulting with a Chinese Language Instructor.
Series A (Non-Heritage Speakers):
CHINLANG 1 First-Year Modern Chinese, First Quarter
CHINLANG 2 First-Year Modern Chinese, Second Quarter
CHINLANG 3 First-Year Modern Chinese, Third Quarter
Series B (Heritage speakers):
CHINLANG 1B First-Year Modern Chinese for Bilingual Students, First Quarter
CHINLANG 2B First-Year Modern Chinese for Bilingual Students, Second Quarter

CHINLANG 3B First-Year Modern Chinese for Bilingual Students, Third Quarter
Series C (Summer Intensive Program):
CHINLANG 5
III. Classical Chinese

Take one classical Chinese course.
Additional classical Chinese courses taken may fulfill additional
culture course requirements (IV-B.)

| CHINA 105 | Beginning Classical Chinese, First Quarter |
| :--- | :--- |
| CHINA 106 | Beginning Classical Chinese, Second <br> Quarter |
| CHINA 107 | Beginning Classical Chinese, Third Quarter |

IV. Additional Courses
A. Complete Three CHINA courses at the 100 level, one in each of the following areas:

- Pre-modern China
- Modern China
- Chinese linguistics
B. Four additional culture courses, as approved by the DUS or SSO. One of these should be a HISTORY course on China, offered by the Department of History.
C. Fulfill the Writing in the Major (WIM) requirement by taking CHINA 111.

CHINA 111 Literature in 20th-Century China

## V. Senior Capstone Essay or Honors Thesis

Winter Quarter, Senior year: Students must enroll in the Senior Colloquium course to work on research and writing methods with DUS to work on their Senior Capstone Essay or Senior Honors Thesis.

## EALC 198 Senior Colloquium

Spring Quarter, Senior year. Students enroll in a Senior Research course with their topic adviser. Students may also enroll in Senior Research with their topic adviser in the Fall and/or Winter Quarter(s) the senior year. Students must enroll in at least one Senior Research course with their topic adviser.

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CHINA 198C Senior Research
CHINA 198H Senior Research
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Spring Quarter, Senior year. Students submit and present the final research project to EALC faculty and peers.

## Honors Program

Majors with an overall grade point average (GPA) of 3.5 may apply for the honors program by submitting a senior thesis proposal to the honors
committee during the Winter or Spring Quarter of the junior year. The proposal must include:

- a thesis outline
- a list of all relevant courses the student has taken and plans to take; one advanced-level colloquium or seminar dealing with China is required
- a preliminary reading list including a work or works in Chinese
- the name of a faculty member who has agreed to act as the honors topic adviser.

If the proposal is approved:

1. Research begins in the Spring Quarter of the junior year, or by the beginning Autumn Quarter of the senior year at the latest, when the student enrolls in CHINA 198H Senior Research.
2. In the Winter Quarter of the senior year, students enroll in CHINA 198H Senior Research, with the thesis topic adviser while writing the thesis, and the finished essay (normally about 15,000 words) is submitted to the committee no later than the Last Day of Classes in Spring Quarter of the senior year.
3. Students also enroll in EALC 198 Senior Colloquium during the Winter Quarter of the senior year to polish and present their thesis (instead of writing a senior capstone essay).
4. 8-11 units of credit are granted for honors course work and the finished thesis.

## Bachelor of Arts in East Asian Studies, Japan Subplan

The Bachelor of Arts in East Asia, Japan Subplan, offers students the ability to study East Asia with a special focus on Japanese culture and language. The Bachelor of Arts in East Asian Studies, Japan Subplan, replaced the department's Bachelor of Arts in Japanese. Students currently pursuing the Bachelor of Arts in Japanese may choose to continue his or her plan of study, or opt to complete the Bachelor of Arts in East Asian Studies, Japan Subplan requirement instead. Note: Once students drop the Bachelor of Arts in Japanese on Axess, he or she cannot re-enroll/declare under the Bachelor of Arts in Japanese again. Consult Prof. Yiqun Zhou, Director of Undergraduate Studies, or Ai Tran, EALC's student services officer, for more clarification.

The following requirements are in addition to the University's basic requirements for the bachelor's degree (http:// exploredegrees.stanford.edu/undergraduatedegreesandprograms/ \#bachelorstext). Letter grades are mandatory for required courses. The following courses, as well as their prerequisites, must be completed with a grade point average (GPA) of 2.0 or better.

Requirements
I. Gateway Courses
Students must take two gateway courses appropriate to the East
Asian Studies, Japan Subplan. These Gateway courses should
have a focus on East Asian culture ("East Asian Gateway Course
Cluster") and/or Japanese culture ("Gateway Course Cluster for
the Japan Subplan").
The courses listed below are examples and not exhaustive.

| At least one of the two courses chosen must be taught by the |
| :--- |
| department. Students pursuing the EAS-Japan Subplan major |
| should consult with the DUS or SSO to make sure that courses fit |
| under these categories. |
| East Asian Gateway Course Cluster <br> EASTASN 97$\quad$ The International Relations of Asia since |
| World War II |

Students must take two gateway courses appropriate to the East Asian Studies, Japan Subplan. These Gateway courses should have a focus on East Asian culture ("East Asian Gateway Course Cluster") and/or Japanese culture ("Gateway Course Cluster for the Japan Subplan").
The courses listed below are examples and not exhaustive. At least one of the two courses chosen must be taught by the should consult with the DUS or SSO to make sure that courses fit under these categories.

[^1]JAPAN $138 \quad$| Introduction to Modern Japanese Literature |
| :--- |
| and Culture |

IV. Senior Capstone Essay or Honors Thesis
Winter Quarter, Senior year: Students must enroll in the Senior
Colloquium course to work on research and writing methods with
DUS to work on their Senior Capstone Essay or Senior Honors
Thesis.
EALC 198
Spring Quarter, Senior year. Students enroll in a Senior Research
course with their topic adviser. Students may also enroll in
Senior Research with their topic adviser in the Fall and/or Winter
Quarter(s) the senior year. Students must enroll in at least one
Senior Research course with their topic adviser.
JAPAN 198C Senior Research
JAPAN 198H Senior Research
Spring Quarter, Senior year. Students submit and present the final
research project to EALC faculty and peers.
Additional notes:

- Students who complete third-year Japanese at KCJS satisfy the
language requirement but are required to take a placement test if they
wish to enroll in:
• JAPANLNG 211 Fourth-Year Japanese, First Quarter
• JAPANLNG 212 Fourth-Year Japanese, Second Quarter
• JAPANLNG 213 Fourth-Year Japanese, Third Quarter

These requirements are in addition to the University's basic requirements for the bachelor's degree. Letter grades are mandatory for required courses.

## Honors Program

Majors with an overall grade point average (GPA) of 3.5 may apply for the honors program by submitting a senior thesis proposal to the honors committee during the Winter or Spring Quarter of the junior year. The proposal must include:

- a thesis outline
- a list of all relevant courses the student has taken or plans to take; one advanced-level colloquium or seminar dealing with China is required
- a preliminary reading list including a work or works in Japanese, and the name of a faculty member who has agreed to act as the honors topic adviser.
if the proposal is approved:

1. Research begins in Spring Quarter of the junior year, or by Autumn Quarter of the senior year at the latest, when the student enrolls in JAPAN 198H Senior Research.
2. In Winter Quarter of the senior year, students enroll in JAPAN 198H Senior Research with the thesis topic adviser while writing the thesis, and the finished essay (normally about 15,000 words) is submitted to the committee no later than the Last Day of Classes in Spring Quarter of the senior year.
3. Students also enroll in the Senior Colloquium, EALC 198 Senior Colloquium, in the Winter Quarter of the senior year to polish and present their theses (instead of writing a capstone essay)
4. 8-11 units of credit are granted for honors course work and the finished thesis

## Bachelor of Arts in East Asian Studies, Korean Subplan

The Bachelor of Arts in East Asia, Korean Subplan, offers students the ability to study East Asia with a special focus on Korean culture and language. The following requirements are in addition to the University's basic requirements for the bachelor's degree (http:// exploredegrees.stanford.edu/undergraduatedegreesandprograms/ \#bachelorstext). Letter grades are mandatory for required courses. The following courses, as well as their prerequisites, must be completed with a grade point average (GPA) of 2.0 or better

## Requirements



Students must be proficient in modern Korean at Stanford's third-year level. Language assessment exams are offered by the Language Center to determine language proficiency.
After taking the Placement Exam and consulting with a Korean Language Instructor, enroll in the appropriate courses until the completion of third-year Korean coursework.

First-year modern Korean:

| KORLANG 1 | First-Year Korean, First Quarter |
| :--- | :--- |
| KORLANG 2 | First-Year Korean, Second Quarter |
| KORLANG 3 | First-Year Korean, Third Quarter |

Second-year modern Korean:
KORLANG 21 Second-Year Korean, First Quarter
KORLANG 22 Second-Year Korean, Second Quarter
KORLANG 23 Second-Year Korean, Third Quarter
Third-year modern Korean:
KORLANG 101 Third-Year Korean, First Quarter
KORLANG 102 Third-Year Korean, Second Quarter
KORLANG 103 Third-Year Korean, Third Quarter
III. Additional Courses
A. Complete the Writing in the Major (WIM) requirement.

KOREA 120 Narratives of Modern and Contemporary Korea
B. Take six additional culture courses at the 100 -level, at least two of six courses must be offered by the department.

## IV. Senior Capstone Essay or Honors Thesis

Winter Quarter, Senior year. Students must enroll in the Senior Colloquium course to work on research and writing methods with DUS to work on their Senior Capstone Essay or Senior Honors Thesis.
EALC 198 Senior Colloquium
Spring Quarter, Senior year: Students enroll in a Senior Research course with their topic adviser. Students may also enroll in Senior Research with their topic adviser in the Fall and/or Winter Quarter(s) the senior year. Students must enroll in at least one Senior Research course with their topic adviser.

## KOREA 198H Senior Research

KOREA 198C Senior Research
Spring Quarter, Senior year. Students submit and present the final research project to EALC faculty and peers.

## Honors Program

Majors with an overall grade point average (GPA) of 3.5 may apply for the honors program by submitting a senior thesis proposal to the honors committee during the Winter or Spring Quarter of the junior year. The proposal must include:

- a thesis outline
- a list of all relevant courses the student has taken or plans to take; one advanced-level colloquium or seminar dealing with China is required.
- a preliminary reading list including a work or works in Korean
- the name of a faculty member who has agreed to act as the honors thesis adviser

If the proposal is approved:

1. Research begins in the Spring Quarter of the junior year, or by the beginning Autumn Quarter of the senior year at the latest, when the student enrolls in KOREA 198H Senior Research.
2. In the Winter Quarter of the senior year, students enroll in KOREA 198H Senior Research, with the thesis topic adviser while writing the thesis, and the finished essay (normally about 15,000 words) is submitted to the committee no later than the Last Day of Classes in Spring Quarter of the senior year.
3. Students enroll in EALC 198 Senior Colloquium in the Winter Quarter of the senior year to polish and present their thesis (instead of writing a capstone essay).
4. 8-11 units of credit are granted for honors coursework and the finished thesis.

## Overseas Studies

Courses approved for the East Asian Languages and Cultures majors which are taught overseas can be found in the "Overseas Studies (http://exploredegrees.stanford.edu/undergraduateeducation/ overseasstudies/)" section of this Bulletin, or in the Overseas Studies office, Sweet Hall. To find course offerings in for courses, use BOSP's Course Search (https://undergrad.stanford.edu/programs/bosp/explore/ search-courses/).

For course descriptions and additional offerings, see the listings in the Stanford Bulletin's ExploreCourses (http://explorecourses.stanford.edu) web site or the Bing Overseas Studies (http://bosp.stanford.edu) web site. Students should consult with the SSO or DUS for applicability of Overseas Studies courses to a major or minor program.

## Minor in East Asian Studies

The goal of the minor in East Asian Studies is to provide the student with a broad background in East Asian culture as a whole, while allowing the student to focus on a geographical or temporal aspect of East Asia. The minor may be designed from the following, for a total of six courses and a minimum of 20 units. All courses for the minor must be taken for a letter grade, a minimum of 3 units, and completed with a GPA of 2.0 or better. Consult with the department to potentially count one of the BOSP courses taught by a Stanford home campus faculty member toward the minor.

| I. Area Courses | Units 9-15 |
| :---: | :---: |
| Take three courses on East Asia, one in each of the following categories; if uncertain whether a particular course fits into one of these categories; check with the DUS or SSO to confirm whether selected coursework will fulfill category requirement: |  |
| A. History |  |
| B. Humanities |  |
| C. Social Sciences |  |
| II. Additional Courses | 9-15 |
| A. Complete one undergraduate seminar above the 100-level |  |
| B. Complete two East Asian culture courses, including literature courses but excluding language courses. |  |

Applications for the minor should be submitted online through Axess. Students must also meet with the student services officer (SSO) or Director of Undergraduate Studies (DUS) to approve the degree program proposal. Students should declare the minor no later than the second quarter of the junior year.

## Minor in East Asian Studies, China Subplan

The undergraduate minor in Chinese has been designed to give students majoring in other departments an opportunity to gain a substantial introduction to the Chinese language, as well as an introduction to the culture and civilization of East Asia. The minors consist of a minimum of 20 units from the following requirements. All courses for the minor must be taken for a letter grade, a minimum of 3 units, and completed with a GPA of 2.0 or better. Consult with the department to potentially count one of the BOSP courses taught by a Stanford home campus faculty member toward the minor.

|  | Units |
| :--- | ---: |
| I. Proficiency in Modern Chinese | $15-30$ |
| Students pursuing the minor must take at least 2 years of modern |  |
| Chinese, and be at least proficient at Stanford's second-year level. |  |
| Language assessment exams are offered by the Language Center |  |
| to determine language proficiency. |  |
| Students who already have a competence at the second-year |  |
| level may fulfill the language component of the minor by taking |  |
| three courses in the department using materials in Chinese. |  |
| These courses may be language courses such as the third-year |  |
| Chinese language sequence, the fourth-year language sequence, |  |
| or they may be advanced literature and linguistics courses, |  |
| depending on the capabilities and interests of the student. |  |
| II. Gateway Courses |  |
| Students must take two gateway courses appropriate to the East |  |
| Asian Studies, China Subplan. These Gateway courses should |  |
| have a focus on East Asian culture ("East Asian Gateway Course |  |
| Cluster") and/or Chinese culture ("Gateway Course Cluster for the |  |
| China Subplan"). |  |

I. Proficiency in Modern Chinese

Students pursuing the minor must take at least 2 years of modern Chinese, and be at least proficient at Stanford's second-year level. to determine language proficiency.
Students who already have a competence at the second-year level may fulfill the language component of the minor by taking three courses in the department using materials in Chinese. hese courses may be language courses such as the third-year depending on the capabilities and interests of the student.

Students must take two gateway courses appropriate to the East Asian Studies, China Subplan. These Gateway courses should have a focus on East Asian culture ("East Asian Gateway Course China Subplan").

The courses listed below are examples and not exhaustive. At least one of the two courses chosen must be taught by the department. Students pursuing the EAS-China Subplan minor should consult with the DUS or SSO to make sure that courses fit under these categories.

## III. Additional Courses

Complete three 100-level culture courses selected from among the department's offerings in the literature, linguistics, and civilization of the relevant minor area.

## Minor in East Asian Studies, Japan Subplan

The undergraduate minor in Japanese has been designed to give students majoring in other departments an opportunity to gain a substantial introduction to the Japanese language, as well as an introduction to the culture and civilization of East Asia. The minors consist of a minimum of 20 units from the following requirements. All courses for the minor must be taken for a letter grade, a minimum of 3 units, and completed with a GPA of 2.0 or better. Consult with the department to potentially count one of the BOSP courses taught by a Stanford home campus faculty member toward the minor.

## I. Proficiency in Modern Japanese

Units

Students pursuing the minor must take at least 2 years of modern Japanese, and be at least proficient at Stanford's second-year level. Language assessment exams are offered by the Language Center to determine language proficiency.
Students who already have a competence at the second-year level may fulfill the language component of the minor by taking three courses in the department using materials in Chinese. These courses may be language courses such as the thirdyear Japanese language sequence, the fourth-year language sequence, or they may be advanced literature and linguistics courses, depending on the capabilities and interests of the student.
Obtain permission from the SSO or DUS before proceeding.
II. Two Gateway Courses

Students must take two Gateway courses appropriate to the East Asian Studies, Japan Subplan. These Gateway courses should have a focus on East Asian culture ("East Asian Gateway Course Cluster") and/or Japanee culture ("Gateway Course Cluster for the Japan Subplan").
At least one of the two courses chosen must be taught by the department. Students pursuing the EAS-Japan Subplan minor should consult with the DUS or SSO to make sure that courses fit under these categories.
III. Three Japanese content courses

Complete three 100-level culture courses selected from among the department's offerings in the literature, linguistics, and civilization of the relevant minor area.

## Minor in East Asian Studies, Japanese Language Subplan

The undergraduate minor in East Asian Studies, Japanese Language subplan, has been designed to give students majoring in other departments and the opportunity to gain a substantial introduction to the Japanese language, as well as an introduction to the culture and civilization of East Asia. The minors consist of a minimum of 20 units from the following requirements. All courses for the minor must be taken for a letter grade, a minimum of 3 units, and completed with a GPA of 2.0 or better. Consult with the department to potentially count one of
the BOSP courses taught by a Stanford home campus faculty member toward the minor

## I. Proficiency of Modern Japanese, at the Fourth-Year level

Proficiency of the modern Japanese language through Stanford's fourth-year level.
Students who place out of fourth-year Japanese (JAPAN 213:
Fourth-Year Japanese, Third Quarter) are required to take 3
courses in addition to JAPAN 235: Academic Readings in Japanese.

JAPAN 235 Academic Readings in Japanese I
II. Additional Courses

Students must take two additional JAPAN courses with materials in Japanese. Courses should be at the 100-level or higher.

## Minor in East Asian Studies, Korea Subplan

The undergraduate minor in Korean has been designed to give students majoring in other departments an opportunity to gain a substantial introduction to the Korean language, as well as an introduction to the culture and civilizations of East Asia. The minors consist of a minimum of 20 units from the following requirements. All courses for the minor must be taken for a letter grade, a minimum of 3 units, and completed with a GPA of 2.0 or better. Consult with the department to potentially count one of the BOSP courses taught by a Stanford home campus faculty member toward the minor.

|  | Units |
| :--- | ---: |
| I. Proficiency in modern Korean | 15-30 |
| Students pursuing the minor must take at least two years of |  |
| modern Korean, and be at least proficient at Stanford's second- |  |
| year level. Language assessment exams are offered by the |  |
| Language Center to determine language proficiency. |  |
| Students who already have a competence at the second-year |  |
| level may fulfill the language component of the minor by taking |  |
| three courses in the department using materials in Korean. These |  |
| courses may be language courses such as the third-year Korean |  |
| language sequence, the fourth-year language sequence, or they |  |
| may be advanced literature and linguistics courses, depending on |  |
| the capabilities and interests of the student. |  |
| Obtain permission from the SSO or DUS before proceeding. |  |

II. Complete two gateway courses

Students must take two gateway courses appropriate to the East Asian Studies, Korea Subplan. These Gateway courses should have a focus on East Asian culture ("East Asian Gateway Course Cluster") and/or Korean culture ("Gateway Course Cluster for the Korea Subplan").
The courses listed below are examples and not exhaustive. At least one of the two courses chosen must be taught by the department. Students pursuing the EAS-Korea Subplan minor should consult with the DUS or SSO to make sure that courses fit under these categories.

## III. Additional Courses

Complete three 100-level culture courses selected from among the department's offerings in the literature, linguistics, and civilization of the relevant minor area. Up to one course can be approved from outside the department with the DUS or SSO approval

## Minors in Other Departments Minor in Translation Studies

Faculty Director: Alexander Key

Minor Adviser: Cintia Santana
The Division of Literatures, Cultures, and Languages, in cooperation with East Asian Languages and Cultures and the English Department, teaches undergraduates to develop and apply their foreign language knowledge to the production and analysis of translations. The minor is designed to give students majoring in a variety of fields the tools to consider the practical and theoretical issues brought up by translation as an aesthetic, cultural, and ethical practice.

## Declaring the Minor

Students will declare the minor in Axess, and then contact the minor adviser, Cintia Santana (csantana@stanford.edu). The program is administered by the DLCL student services office located in Pigott Hall, room 128.

## Requirements

Students must take a minimum of 6 courses for 3 units or more and a minimum of 23 units for a letter grade, in fulfillment of the following requirements:

1. Prerequisite: Complete or test out of a first-year course in the language of interest.
2. Core course: At least 4 units in a Translation Studies core course: ENGLISH/DLCL 293 or FRENCH 185 or Comparative Literature 228/ JAPAN 123/223.
3. Language study: At least 8 units, second year or beyond (not
including conversation/oral communication) and/or relevant literature courses taught in the target language. OSP and transfer units may be considered in consultation with the minor adviser.
4. Literature study: At least 7 units in relevant literature courses at the 100-level or above, taught in a DLCL department, East Asian Languages and Cultures, or Classics, and determined in consultation with the minor adviser. For students interested in translation from English into another language, appropriate literature courses in the English department may be substituted.
5. Electives: At least 4 units in a creative writing course,
or a course that foregrounds translation in departments such as Anthropology, any DLCL department, English, East Asian Languages and Cultures, Classics, Linguistics (e.g., LINGUIST 130A), or Computer Science (e.g., CS 124), determined in consultation with the minor adviser.
6. Final Project: Students must also complete a capstone project: a significant translation and/or translation studies project (e.g. 20 pages of prose, 10 poems, or similar appropriate amount to be determined in consultation with the minor adviser). This work may be carried out under the supervision of an instructor in a required course or as an independent study.

## Total Units

## Bachelor of Arts in English

The Department of English offers a Bachelor of Arts in English. Eligible students may also pursue a Bachelor of Art with Honors (p. 14). The department also offers a minor in English Literature (http:// exploredegrees.stanford.edu/schoolofhumanitiesandsciences/ english/\#minortext) and a minor in Creative Writing (http:// exploredegrees.stanford.edu/schoolofhumanitiesandsciences/english/ \#minor-creative-writing).

The English major is designed to provide students with both an understanding of the development of literatures in English and an appreciation of the variety and richness of literary texts. It offers a rigorous training in interpretive thinking and precise expression.

## Suggested Preparation for the Major

Prospective English majors are advised to consider Thinking Matters courses that relate to literature to satisfy a major requirement. Also recommended is any introductory seminar taught by English department faculty through Stanford Introductory Studies.

## Units

## Suggested Preparatory Courses for the Major

See "Degree Requirements" below to determine if and how some of these courses may be counted towards degree requirements.

| Thinking Matters Courses |  |  |
| :---: | :---: | :---: |
| THINK 49 | Stories Everywhere | 4 |
| Introductory Seminars |  |  |
| ENGLISH 40N | Theatrical Wonders from Shakespeare to Mozart | 3 |
| ENGLISH 82N | Thinking about Photographs | 3 |
| ENGLISH 14Q | It's the Freakiest Show: David Bowie's Intertextual Imagination | 3 |
| ENGLISH 17N | Animal Poems | 3-5 |
| ENGLISH 30N | Character | 3 |
| ENGLISH 31N | Love and Death | 3 |
| ENGLISH 33N | A Way of Life: Historic Journeys to Sacred Place | 3 |
| ENGLISH 52N | Mixed-Race Politics and Culture | 3 |
| ENGLISH 89N | Literature of Adoption | 3 |
| ENGLISH 13Q | Imaginative Realms | 3 |
| ENGLISH 16Q | Family Stories | 3 |
| ENGLISH 18Q | Writer's Salon | 3 |
| ENGLISH 19Q | I Bet You Think You're Funny: Humor Writing Workshop | 3 |
| ENGLISH 21Q | Write Like a Poet: From Tradition to Innovation | 3 |
| ENGLISH 22Q | Writing Mystical, Spiritual, and Altered Experiences | 3 |
| ENGLISH 23Q | First Chapters: Please Allow Me to Introduce My Novel | 3 |
| ENGLISH $24 Q$ | Leaving Patriarchy: A Course for All Genders | 3 |
| ENGLISH 90Q | Sports Writing | 3 |
| ENGLISH 93Q | The American Road Trip | 3 |
| ENGLISH 94Q | The Future is Feminine | 3 |

## How to Declare the Major in English

Students interested in majoring in English are encouraged to declare during their sophomore year, but no later than the beginning of their junior year. They are urged to discuss their plans with the undergraduate student services officer as early as possible, and to fulfill the core requirements for the major in their freshman and sophomore years.

To declare the major, a student must:

- fill out the Declaration of Major in Axess
- choose a faculty advisor, and
- submit a completed program proposal form approved by your faculty advisor.


## Degree Requirements

It is required that a student meet with the advisor at least once per academic year to discuss progress towards degree completion. Quarterly meetings are highly encouraged. It is recommended that a student meet with the advisor at least once per quarter to discuss progress towards degree completion.

## Course Requirements

Rules that apply to all English majors irrespective of field of study or degree option

1. Courses can only be counted once, i.e., can only satisfy one requirement
2. Two of the elective courses may be taken on a credit/no credit basis at the discretion of the instructor.

The total number of units required to graduate for each degree option is specified in the relevant section following. All courses should be taken for 5 units. Irrespective of field of study or degree option, all English majors must complete the following requirements:

Units
Required Courses (35 units)
All required courses must be taken for 5 units.

## Historical courses

| One course in the 10 series ${ }^{1}$ | 5 |
| :--- | :--- | :--- |
| ENGLISH 10A | Introduction to English I: Encounters with <br> the Monstrous in Early British Literature |
| ENGLISH 10B | Introduction to English I: What Is Literary <br> History? |
| ENGLISH 10D | Introduction to English I: Women, Gender, <br> and Sexuality in Early British Literature |
| One course in the 11 series ${ }^{2}$ |  |$\quad 5$

Writing in the Major (WIM)

| ENGLISH 5A | WISE: Unfinished Novels |
| :--- | :--- |
| ENGLISH 5B | WISE: Mental Health and Literature, Mid- <br> century to Present |
| ENGLISH 5C | WISE: Revelation and Apocalypse: <br> Literature at the End of the World <br> $1300-2000$ |
| ENGLISH 5D | WISE: Bad Reading: Pleasure and Politics in <br> Literary Value |
| ENGLISH 5E | WISE: The Novel of Love <br> ENGLISH 5F |
| WISE: Serial Children's Literature: Lemony <br> Snicket's A Series of Unfortunate Events |  |
| ENGLISH 5G | WISE: Blackness and the American Canon |

One pre-1800 historical course
The following courses offered in 2019-20 fulfill this requirement.

| ENGLISH 115C | Hamlet and the Critics |
| :--- | :--- |
| ENGLISH 251B | Paradise Lost |
| ENGLISH 200C | Introduction to Manuscript Studies |
| ENGLISH 201 | The Bible and Literature |
| ENGLISH 115G | Shakespeare: Five Tragedies |
| ENGLISH 115E | Shakespeare and his Contexts: Race, <br> Religion, Sexuality, Gender |
| ENGLISH 107B | Literature of the English Revolution |
| ENGLISH 237 | Before Novels |
| ENGLISH 122C | Medieval Fantasy Literature |
| ENGLISH 114C | ¿Books Promiscuously Read <br> Renaissance Experience |
| SLE V1 91 | Structured Liberal Education of <br> Structured Liberal Education |

Fields of Study 35-50
units
Each student must choose one of five fields of study. See below for complete information.

Total Units

## Transfer Credit and Course Equivalency

Students who take a class with substantial Anglophone literary content outside the department may petition for course equivalency to count that course towards the English major, at the discretion of the Director of Undergraduate Studies. Such courses cannot fulfill English literature core requirements; students may not receive course equivalency credit for more than two classes, and students should not take for granted that any particular course will be accepted

Transfer students only may apply as many as four literature courses taken at approved universities toward the English major. Approval of such courses toward the major and its requirements is at the discretion of the Director of Undergraduate Studies.

Request for transfer credit, including course syllabi and official transcripts, should be submitted to the undergraduate student services officer, and to the Office of the Registrar's external credit evaluation section. After-the-fact petitions for courses taken outside the department may be refused.

## Fields of Study

Because the Department of English recognizes that the needs and interests of literature students vary, it has approved several major programs of study. Each of these has different objectives and requirements; students should consider carefully which program of study corresponds most closely to their personal and intellectual objectives. The department offers the following fields of study for degrees in English.

## I. Literature (35 units)

This field of study is not declared in Axess. It does not appear on either the official transcript or the diploma. This program provides for the interests of students who wish to understand the range and historical development of British, American and Anglophone literatures and a variety of critical methods by which their texts can be interpreted. The major emphasizes the study of literary forms and genres and theories of textual analysis. In addition to the degree requirements required of all majors and listed above, students must complete at least 35 additional units of courses consisting of:

- Seven additional approved elective courses, only one of which may be a creative writing course, chosen from among those offered by the Department of English. In place of one of these seven elective
courses, students may choose one upper-division course in a foreign literature read in the original language.


## II. Literature with Creative Writing Emphasis (40 units)

This field of study (subplan) is printed on the transcript and diploma and is elected in Axess. This program is designed for students who want a sound basic knowledge of the English literary tradition as a whole and at the same time want to develop skills in writing poetry or prose. In addition to the degree requirements required of all majors and listed above, students must complete at least 40 additional units of approved courses, in either the prose or poetry concentration:

## Prose Concentration

|  |  | Units |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { ENGLISH } 90 \\ & \text { or ENGLISH } 91 \end{aligned}$ | Fiction Writing Creative Nonfiction | 5 |
| ENGLISH 92 | Reading and Writing Poetry (Can be fulfilled with a poetry literature seminar) | 5 |
| ENGLISH 146S | Secret Lives of the Short Story | 5 |
| ENGLISH 190 | Intermediate Fiction Writing (or any 190 series or 191 series) | 5 |
| or ENGLISH 191 | Intermediate Creative Nonfiction |  |
| 4 elective literature courses (One of the courses may be fulfilled with a creative writing workshop). |  | 20 |

Total Units

## Poetry Concentration

|  | Units |  |
| :--- | :--- | ---: |
| ENGLISH 90 | Fiction Writing (Can be fulfilled with a prose <br> literature seminar) | 5 |
| or ENGLISH 91 | Creative Nonfiction | 5 |
| ENGLISH 92 | Reading and Writing Poetry |  |
| ENGLISH 192 | Intermediate Poetry Writing (or any 192 <br> series) | 5 |
| One literature course in poetry |  |  |
| 4 elective literature courses (One of the courses may be fulfilled |  |  |
| with a creative writing workshop) | 20 |  |
| Total Units | 40 |  |

## III. Literature and Interdisciplinary Studies (40 units)

This field of study (subplan) is printed on the transcript and diploma and is elected in Axess. This program is intended for students who wish to combine the study of one broadly defined literary topic, period, genre, theme or problem with an interdisciplinary program of courses (generally chosen from one other discipline) relevant to that inquiry. In addition to the degree requirements required of all majors and listed above, students must complete at least 40 additional units of approved courses including:

1. Five elective literature courses chosen from among those offered by the Department of English. Students must select two of these courses in relation to their interdisciplinary focus.
2. Three courses related to the area of inquiry. These courses may be chosen from another department or interdisciplinary program within the School of Humanities and Sciences including (but not limited to) such as African American Studies (http://www.stanford.edu/dept/ AAAS/), Anthropology (https://www.stanford.edu/dept/anthropology/ cgi-bin/web/), Art and Art History (http://art.stanford.edu/), Classics (http://www.stanford.edu/dept/classics/cgi-bin/web/), Comparative Literature (http://www.stanford.edu/dept/DLCL/ cgi-bin/web/dept/complit/), Comparative Studies in Race and Ethnicity (http://ccsre.stanford.edu/), Feminist Studies (http:// www.stanford.edu/dept/femstudies/), Human Biology (https:// humbio.stanford.edu/), Music (http://music.stanford.edu/ Home/), Philosophy (http://philosophy.stanford.edu/), Political

Science (http://politicalscience.stanford.edu/), Psychology (http://psychology.stanford.edu/), Religious Studies (http:// www.stanford.edu/dept/relstud/), Science, Technology, and Society (http://sts.stanford.edu/), and Sociology (http:// sociology.stanford.edu/). These courses should form a coherent program and must be relevant to the focus of the courses chosen by the student to meet the requirement. Each of these courses must be approved in advance by the interdisciplinary program director.
3. In addition, students in this program must complete an interdisciplinary project, in the form of a 15-20 page interdisciplinary paper or its equivalent. This may be completed with ENGLISH 194 Individual Research, ENGLISH 197 Seniors Honors Essay, ENGLISH 198 Individual Work, ENGLISH 199 Senior Independent Essay, or a paper integrating the material in two courses the student is taking in two different disciplines.

The final course plan (in the form of a 1 to 2 paragraph summary of coherent course of study) and interdisciplinary project must be approved by the faculty advisor and the interdisciplinary advisor by the time the student applies to graduate.

## IV. Literature and Foreign Language Literature (40 units)

This field of study (subplan) is printed on the transcript and diploma and is elected in Axess. This track provides a focus in British and American literature with additional work in foreign language literature. Current options include: French literature; German literature; Italian literature; or Spanish literature. These subplans appear on the diploma as follows: English \& French Literature, English \& German Literature, English \& Italian Literature, and English \& Spanish Literature. In addition to the degree requirements required of all majors and listed above, students must complete at least 40 additional units of approved courses including:

1. Four elective courses chosen from among those offered by the Department of English, one of which may be a creative writing course.
2. A coherent program of four courses in the foreign language literature, read in the original language, approved by the Director of Undergraduate Studies in English and by the relevant foreign language department.

## V. Literature and Philosophy (40-50 units)

This field of study (subplan) is printed on the transcript and diploma and is elected in Axess. Students should meet with the undergraduate director concerning the Literature and Philosophy focus. This track is for students who wish to explore interdisciplinary studies at the intersection of literature and philosophy while acquiring knowledge of the English language literary tradition as a whole. In addition to the degree requirements required of all majors and listed above, students must complete at least 40-50 additional units of approved courses including:

1. PHIL 80 Mind, Matter, and Meaning (WIM): Prerequisite: introductory philosophy course.
2. Gateway course: ENGLISH 81 Philosophy and Literature. This course should be taken as early as possible in the student's career, normally in the sophomore year.
3. Aesthetics, Ethics, Political Philosophy: one course from PHIL 170 Ethical Theory series.
4. Language, Mind, Metaphysics, and Epistemology: one course from PHIL 180 Metaphysics series.
5. History of Philosophy: one course in the history of Philosophy, numbered above PHIL 100 Greek Philosophy.
6. Two upper division courses of special relevance to the study of Philosophy and Literature. Both of these courses must be in the English department. A list of approved courses (http:// philit.stanford.edu/programs/relevance.html) is available on the Philosophy and Literature web site.
7. Two additional elective courses in the English department.
8. One capstone seminar (http://philit.stanford.edu/programs/ capstone.html) of relevance to the study of Philosophy and Literature.

## Additional Information

## Advanced Research Options

## Individual Research

Students taking 100- or 200-level courses may, with the consent of the instructor, write a follow-up 5 -unit paper based on the course material and due no later than the end of the succeeding quarter (register for ENGLISH 194 Individual Research). The research paper is written under the direct supervision of the professor; it must be submitted first in a preliminary draft and subsequently in a final version.

## Overseas Studies or Study Abroad

The flexibility of the English major permits students to attend an overseas campus in any quarter, but it is advisable, and in some cases essential, that students spend their senior year at Stanford if they wish to participate in the honors program or in a special in-depth reading course. For more information on Stanford overseas programs, see the "Overseas Studies (http://exploredegrees.stanford.edu/undergraduateeducation/ overseasstudies/)" section of this bulletin.

Students should consult their advisors and the undergraduate program officer to make sure that they can fulfill the requirements before graduation. The Stanford Program in Oxford usually offers courses which apply toward both University requirements and area requirements for the English major. In either case, students should save the syllabi from their courses if they wish to apply to use them to fulfill an English major requirement.

See the Overseas tab (http://exploredegrees.stanford.edu/ schoolofhumanitiesandsciences/english/\#overseastext) in this section of the bulletin for courses offered this year.

## Overseas Studies Courses in English

The Bing Overseas Studies Program (http://bosp.stanford.edu) (BOSP) manages Stanford international and domestic study away programs for Stanford undergraduates. Students should consult their department or program's student services office for applicability of Overseas Studies courses to a major or minor program.

The BOSP course search site (https://undergrad.stanford.edu/programs/ bosp/explore/search-courses/) displays courses, locations, and quarters relevant to specific majors.

For course descriptions and additional offerings, see the listings in the Stanford Bulletin's ExploreCourses (http://explorecourses.stanford.edu) or Bing Overseas Studies (http://bosp.stanford.edu).

Due to COVID-19, all BOSP programs have been suspended for Autumn Quarter 2020-21. All courses and quarters of operation are subject to change.

## Capstone: Senior Independent Essay

The senior independent essay gives senior English majors the opportunity to work throughout the year on a sustained piece of critical or scholarly work of around 10,000 words on a topic of their choice, with the close guidance of a faculty advisor. Each student is responsible for finding an advisor, who must approve the proposed topic before the end of the third quarter prior to expected graduation. The senior essay is read and graded by the advisor and one other member of the English faculty. Senior independent essay students register for ENGLISH 199 Senior Independent Essay.

## Honors Program

Students wishing to undertake a formal program of advanced literary criticism and scholarship, including the honors seminar and independent research, are invited to apply for the honors program in the Spring Quarter of the junior year. Any outstanding student is encouraged to engage in an honors thesis project.

Admission is selective. Admission is announced in early May based on submission, by April 15 of the junior year, of the senior honors application package including a thesis proposal. Accepted students then submit a revised proposal and bibliography by June 15. Honors students are encouraged to complete before the start of their senior year the three methodology courses that are English major requirements:

|  |  | Units |
| :--- | :--- | ---: |
| ENGLISH 160 | Poetry and Poetics | 5 |
| ENGLISH 161 | Narrative and Narrative Theory |  |
| WISE course | WISE: Unfinished Novels |  |
| ENGLISH 5A | WISE: Mental Health and Literature, Mid- <br> century to Present |  |
| ENGLISH 5B | WISE: Revelation and Apocalypse: <br> Literature at the End of the World <br> 1300-2000 |  |
| ENGLISH 5C | WISE: Bad Reading: Pleasure and Politics in <br> Literary Value |  |
| ENGLISH 5D | WISE: The Novel of Love |  |
| ENGLISH 5F | WISE: Serial Children's Literature: Lemony <br> Snicket's A Series of Unfortunate Events <br> WISE: Blackness and the American Canon |  |
| ENGLISH 5G | WISE: Dialogue in American Literature |  |

In September before the senior year, students are encouraged to participate in the Bing Honors College. In Autumn Quarter of the senior year, students take a mandatory 5 unit honors seminar (ENGLISH 196A Honors Seminar. Critical Approaches to Literature) on critical approaches to literature. The senior year seminar is designed to introduce students to the analysis and production of advanced literary scholarship. Students planning on studying abroad in the senior year should privilege Winter Quarter, rather than Autumn.

In Winter and Spring quarters of the senior year, honors students complete the senior honors essay for a total of 10 units under supervision of a faculty advisor.

The deadline for submitting the honors essay is May 6, 2021. Essays that receive a grade of 'A-' or above are awarded honors.

In addition to fulfilling the requirements of the major, students in the honors program must complete 15 units of the following:

|  | Honors Seminar. Critical Approaches to <br> Eiterature | 5 |
| :--- | :--- | ---: |
| ENGLISH 196A |  |  |

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[^0]:    II. Proficiency of the Modern Chinese Language, at the Third-Year Level

[^1]:     World War II

