# **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.

MED 255 The Responsible Conduct of Research INDE 217 Physician Scientist Hour (take this course three times) INDE 258 PSTP Career Development Symposium SOMGEN 223 Introduction to R for data analysis Choose one of the following 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 Such courses are typically numberd 399 Elective courses Choose one or more of the following: MED 221 Translational Research and Applied Medicine BIOE 390/ Introduction to Bioengineering Research MED 289 BIO/BIOC 459 Frontiers in Interdisciplinary Biosciences BIODS 260A Workshop in Biostatistics BIODS 260B Workshop in Biostatistics BIODS 260C Workshop in Biostatistics	
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BIODS 260B Workshop in Biostatistics BIODS 260C Workshop in Biostatistics	
BIODS 260C Workshop in Biostatistics	
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BIOE/BIOMEDIN/ Introduction to Biomedical Informatics GENE 212 Research Methodology	
BIOMEDIN 233/ Intermediate Biostatistics: Analysis of HRP 261 Discrete Data	
BIOMEDIN 251/ Outcomes Analysis HRP 252/MED 252	
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	

Γota	al Units		45-49
	SURG 202C	Qualitative Research Methods and Study Design	
_	SURG 202B		
S	SURG 202A	Practical Applications for Qualitative Data Analysis	
S	STEMREM 201A	Stem Cells and Human Development: From Embryo to Cell Lineage Determination	
	RADO 203SI		
0	RTHO 10SI		
Ν	ISUR 249	Experimental Immersion in Neuroscience	
N	ИED 254		
Ν	ИED 224	Social Entrepreneurship and Innovation Lab (SE Lab) - Human & Planetary Health	
Ν	ИED 206	Meta-research: Appraising Research Findings, Bias, and Meta-analysis	
II	MMUNOL 210	Immunology Research Seminars for Medical Students	
Е	PI 275	Population Health Research	
E	EPI 264	Foundations of Statistical and Scientific Inference	
E	EPI 262	Intermediate Biostatistics: Regression, Prediction, Survival Analysis	
E	EPI 261	Intermediate Biostatistics: Analysis of Discrete Data	
Н	IRP 259		
Н	IRP 228		
E	EPI 226	Intermediate Epidemiologic and Clinical Research Methods	
E	EPI 225	Introduction to Epidemiologic and Clinical Research Methods	
		Analysis in SAS	

## 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-advisingadvisingfellows/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**

•		Units
1. Foundations. Thes major.	se courses should be completed early in the	4
a. Gateway Course. N be approved.	Must be taken before a major declaration can	
SYMSYS 1	Minds and Machines	4
b. Single Variable Ca	lculus. One of the following.	10
Series 1		
MATH 19 & MATH 20 & MATH 21	Calculus and Calculus and Calculus	
Series 2		
10 units of Advan	ced Placement Calculus credit	
Series 3		
	Mathematics Placement Diagnostic into H 21 and completion of the rest of the series,	
3. Continuous Funda	mentals Level 2-Multivariable Calculus	3-6
Select one of the foll	owing: <sup>1</sup>	
CME 100	Vector Calculus for Engineers	
CME 100A	Vector Calculus for Engineers, ACE	
MATH 51	Linear Algebra, Multivariable Calculus, and Modern Applications	
MATH 51A	Linear Algebra, Multivariable Calculus, and Modern Applications, ACE	
MATH 61CM	Modern Mathematics: Continuous Methods	
MATH 61DM	Modern Mathematics: Discrete Methods	
MATH 151	Introduction to Probability Theory	

4. Continuous Fund	· · · · · · · · · · · · · · · · · · ·	3-5
Select one of the fo	•	
CS 109	Introduction to Probability for Computer Scientists	
CME 106/ ENGR 155C	Introduction to Probability and Statistics 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 Physical Sciences	
STATS 116	Theory of Probability	
5. Discrete Fundam	entals	9-15
a. Computing Level	1	
Select one of the fo	llowing:	
CS 106A	Programming Methodology	
CS 106AP	(not offered this year)	
Or equivalent prepa	ration, as judged by student	
b. Computing Level		
Select one of the fo	llowing:	
CS 106B	Programming Abstractions	
CS 106X	Programming Abstractions	
c. Logic and Compu	•	
Select one of the fo		
CS 103	Mathematical Foundations of Computing	
PHIL 150	Mathematical Logic	
6. Technical Depth		6-10
Select two of the fo	•	
Area A. Computer P		
CS 107	Computer Organization and Systems	
or CS 107E	Computer Systems from the Ground Up	
Area B. Computatio	-	
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 151 PHIL 152	Metalogic Computability and Logic	
PHIL 151 PHIL 152 PHIL 154	Metalogic Computability and Logic Modal Logic	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th	Metalogic Computability and Logic Modal Logic eory/Game Theory	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252 POLISCI 356A	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis Formal Theory I: Game Theory for Political Science	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252 POLISCI 356A Area E. Probability 3	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis Formal Theory I: Game Theory for Political Science and Statistics	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252 POLISCI 356A	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis Formal Theory I: Game Theory for Political Science	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252 POLISCI 356A Area E. Probability 3	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis Formal Theory I: Game Theory for Political Science and Statistics Probabilistic Graphical Models: Principles	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision The CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252 POLISCI 356A Area E. Probability a CS 228	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis Formal Theory I: Game Theory for Political Science and Statistics Probabilistic Graphical Models: Principles and Techniques Mining Massive Data Sets Introduction to Stochastic Modeling	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252 POLISCI 356A Area E. Probability a CS 228 CS 246	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis Formal Theory I: Game Theory for Political Science and Statistics Probabilistic Graphical Models: Principles and Techniques Mining Massive Data Sets Introduction to Stochastic Modeling Stochastic Modeling	
PHIL 151 PHIL 152 PHIL 154 Area D. Decision Th CS 238 ECON 160 ECON 180 MGTECON 613 MS&E 232 MS&E 252 POLISCI 356A Area E. Probability a CS 228 CS 246 MS&E 121	Metalogic Computability and Logic Modal Logic eory/Game Theory Decision Making under Uncertainty Game Theory and Economic Applications Honors Game Theory Foundations of Game Theory Introduction to Game Theory Decision Analysis I: Foundations of Decision Analysis Formal Theory I: Game Theory for Political Science and Statistics Probabilistic Graphical Models: Principles and Techniques Mining Massive Data Sets Introduction to Stochastic Modeling	

STATS 200	Introduction to Statistical Inference		An additional underg	graduate course in cognition and/or	
STATS 217 Introduction to Stochastic Processes I			neurosciences		
EE 276	Information Theory		Select one of the fol	llowing:	
7. Philosophical Fo	undations Level 1	3-5	BIO 150	Human Behavioral Biology	
Introductory Philos	ophy		HUMBIO 3B	Environmental and Health Policy Analysis	
Select one of the fo	llowing:		PSYCH 30	Introduction to Perception	
ESF 7	Education as Self-Fashioning: The		PSYCH 45	Introduction to Learning and Memory	
	Transformation of the Self		PSYCH 50	Introduction to Cognitive Neuroscience	
ESF 8	Education as Self-Fashioning: Recognizing		PSYCH 60	Introduction to Developmental Psychology	
	the Self and Its Possibilities		PSYCH 60B	(no longer offered)	
OSPOXFRD 20	(not offered this year)		PSYCH 70	Self and Society: Introduction to Social	
PHIL 1	Introduction to Philosophy			Psychology	
PHIL 2	Introduction to Moral Philosophy		PSYCH 80	Introduction to Personality and Affective Science	
PHIL 20N	Philosophy of Artificial Intelligence		PSYCH 120		
PHIL 60	Introduction to Philosophy of Science		PSYCH 120	Cellular Neuroscience: Cell Signaling and Behavior	
PHIL 70	Introduction to political philosophy		PSYC 124	Brain Plasticity	
PHIL 75C	(not offered this year)		PSYCH 140	Introduction to Psycholinguistics	
PHIL 82T	Philosophy of Cognitive Science		PSYCH 141	Cognitive Development	
PHIL 102	Modern Philosophy, Descartes to Kant		PSYCH 154	Judgment and Decision-Making	
THINK 24	Evil		THINK 15	How Does Your Brain Work?	
THINK 56	Health Care, Ethics, and Justice		11. Natural Languag		3-8
	g (must complete entire sequence):			s: Language Processing, Learning, Variation,	3 0
SLE 91 & SLE 92	Structured Liberal Education and Structured Liberal Education		and Change		
& SLE 93	and Structured Liberal Education		Select one of the fol	llowing:	
	courses taught in the Philosophy Department,		LINGUIST 1	Introduction to Linguistics	
if approved by the F 8. Philosophical Fo	Program Director or Associate Director	5	LINGUIST 52N	Spoken Sexuality: Language and the Social Construction of Sexuality	
Writing in the Major		3	LINGUIST 61S	Language Evolution and Change	
PHIL 80	Mind, Matter, and Meaning	5	LINGUIST 67S	The Role of Language in Perception and	
9. Philosophical Fo	-	4	211100101 010	Cognition	
	ollowing advanced undergraduate course in	4	LINGUIST 140	Learning to Speak: An Introduction to Child	
	emology (post-PHIL 80):		LINOLUOT 150	Language Acquisition	
PHIL 106A	(not offered this year)		LINGUIST 150	Language and Society	
PHIL 107B	Plato's Later Metaphysics and		LINGUIST 152	Sociolinguistics and Pidgin Creole Studies	
	Epistemology		LINGUIST 156	Language, Gender, & Sexuality	
PHIL 167D	Philosophy of Neuroscience		LINGUIST 157	Sociophonetics	
PHIL 173B	Metaethics		LINGUIST 159	American Dialects	
PHIL 175	Philosophy of Law		LINGUIST 160	Introduction to Language Change	
PHIL 180	Metaphysics		PSYCH 140	Introduction to Psycholinguistics	
PHIL 180A	Realism, Anti-Realism, Irrealism, Quasi-		Linguistic Theory		
B 101	Realism		Select one of the fol		
PHIL 181	Philosophy of Language		LINGUIST 21N	Linguistic Diversity and Universals: The Principles of Language Structure	
PHIL 182	Advanced Philosophy of Language		LINGUIST 105	Phonetics	
PHIL 182A	Naturalizing Representation				
PHIL 184	Topics in Epistemology		LINGUIST 110	Introduction to Phonology	
PHIL 186	Philosophy of Mind		LINGUIST 112	Seminar in Phonology: Stress, Tone, and Accent	
PHIL 187	Philosophy of Action		LINGUIST 120	Introduction to Syntax	
PHIL 189G	Fine-Tuning Arguments for God's Existence		LINGUIST 121A	The Syntax of English	
	stems majors must take PHIL 182 for 3 or more		LINGUIST 121B	Crosslinguistic Syntax	
units.	lauranaiaman	6.0	LINGUIST	Introduction to Semantics and Pragmatics	
10. Cognition and N		6-9	130A/230A	o contained and i rugination	
Introductory Cognition and Neuroscience			LINGUIST 130B	Introduction to Lexical Semantics	
Select one of the following:			LINGUIST 272	Structure of Finnish	
PSYCH 30 PSYCH 45	Introduction to Perception		LINGUIST 281	Computational Models of Linguistic	
	Introduction to Learning and Memory			Formalism	
PSYCH 50	Introduction to Cognitive Neuroscience		12. Computation and	d Cognition	1-5
PSYCH 141	Cognitive Development		A course applying co	ore 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 Small Seminar 3

An upper-division, limited-enrollment seminar drawing on material from other courses in the core.

Total enrollment must not exceed 20 students for a course to be approved as fulfilling the Advanced Small Seminar Requirement. A course taken to fulfill this requirement can also be counted toward another requirement, as part of either the core or a student's concentration, but not both.

14. Concentration Areas	15-25
See concentration areas below.	
Total Units	75-90

- The following are optional but recommended and may be required for some higher level courses:
  - · Additional courses in the Math 50 series
    - MATH 52 Integral Calculus of Several Variables
    - · MATH 53 Ordinary Differential Equations with Linear Algebra
  - · Or additional courses in the CME 100 series
    - CME 102 Ordinary Differential Equations for Engineers (same as ENGR 155A)
    - CME 104 Linear Algebra and Partial Differential Equations for Engineers (same as ENGR 155B)
  - Or additional courses in the Math 60 CM series
    - · MATH 62CM Modern Mathematics: Continuous Methods
    - · MATH 63CM Modern Mathematics: Continuous Methods
- Two courses chosen from the list below (from either the same or different areas), appropriate to a student's concentration. Students concentrating in HCl, Al, or Computer Music must take CS 107 or CS 107E. Other concentrations may also restrict the particular courses that can be taken to fulfill this requirement.

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**

2-3

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

		Units
Introductory Require	nents	
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 follo	owing:	
CS 151	Logic Programming	
CS 157	Computational Logic	
Set Theory		3
MATH 161	Set Theory	3
Formal Semantics		3-4
Select one of the follo	owing:	
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 follo	owing:	
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/).

Units

**Total Units** 

Sel	ect	five	courses	from	the	fol	lowing	six areas:	•

Select five courses from the following six areas: 1				
Knowledge Representation and Reasoning				
CS 151	Logic Programming			
CS 157	Computational Logic			
CS 228	Probabilistic Graphical Models: Principles and Techniques			
CS 238	Decision Making under Uncertainty			
PHIL 154	Modal Logic			
Natural Language Pi	rocessing			
CS 124	From Languages to Information			
CS 224N	Natural Language Processing with Deep Learning			
CS 224S	Spoken Language Processing			
CS 224U	Natural Language Understanding			
CS 276	Information Retrieval and Web Search			
SYMSYS 112	Challenges for Language Systems			
Learning				
CS 217	Hardware Accelerators for Machine 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 Probabilistic Approach			
STATS 315A	Modern Applied Statistics: Learning			
STATS 315B	Modern Applied Statistics: Data Mining			
<b>Robotics and Vision</b>				
CS 131	Computer Vision: Foundations and Applications			
CS 148	Introduction to Computer Graphics and Imaging			
CS 223A	Introduction to Robotics			
CS 225A	Experimental Robotics			
CS 231A	Computer Vision: From 3D Reconstruction to Recognition			
CS 231N	Convolutional Neural Networks for Visual Recognition			
CS 234	Reinforcement Learning			
CS 331B	Representation Learning in Computer 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
I	Mathematical Found	lations
	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

15-22

9-16

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

- Knowledge representation and reasoning: CS 228 (https://explorecourses.stanford.edu/search/?view=catalog&filter-coursestatus-Active=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=)
- Natural language processing: CS 224N (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 224U (https://explorecourses.stanford.edu/ search/?view=catalog&filter-coursestatus-

Active=on&page=0&catalog=&academicYear=&q=cs224u&collapse=)

- 3. Learning: CS 224W (https://explorecourses.stanford.edu/search/?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&q=cs224w&collapse=), CS 229 (https://explorecourses.stanford.edu/search/?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&q=cs229&collapse=), CS 234 (https://explorecourses.stanford.edu/search/?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&q=cs234&collapse=)
- 4. Robotics and vision: CS 131 (https://explorecourses.stanford.edu/search/?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&q=cs131&collapse=), CS 223A (https://explorecourses.stanford.edu/search/?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&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=&academicYear=&q=cs231n&collapse=), CS 234 (https://explorecourses.stanford.edu/search/?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&q=cs234&collapse=)

## **Cognitive Science**

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

Cognitive Neuroscie	nce	Units 3-4
Select one of the fol		
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	
PSYCH 202	Cognitive Neuroscience	
<b>Empirical Methods</b>		3-5
Select one of the fol	lowing:	
COMM 106	Communication Research Methods	
EE 104	Introduction to Machine Learning	
MS&E 231	Introduction to Computational Social Science	
PSYCH 204A	Human Neuroimaging Methods	
PSYCH 251	Experimental Methods	
PSYCH 252	Statistical Methods for Behavioral and 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	

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	1.50	
COMM 108	Media Processes and Effects	
COMM 322	Advanced Studies in Behavior and Social Media	
CS 229	Machine Learning	
EDUC 368	Cognitive Development in Childhood and Adolescence	
EE 104	Introduction to Machine Learning	
PHIL 182A	Naturalizing Representation	
PHIL 183 PHIL 184	Self-knowledge and Metacognition Topics in Epistemology	
PHIL 185	Special Topics in Epistemology: Testimony in science and everyday life	
PHIL 186	Philosophy of Mind	
PHIL 187	Philosophy of Action	
PHIL 194A	Rationality Over Time	
PHIL 386	Truth as the aim of belief and inquiry	
PHIL 388	Topics in Normativity	
PSYCH 45	Introduction to Learning and Memory	
PSYCH 70	Self and Society: Introduction to Social 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	

Three additional courses chosen across and/or within the

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 Foundation	****	
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 PHIL 357	Logic and Artificial Intelligence	
	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 Total Units	Computer Machines and Intelligence	15-25
Occupants Maria		10-20

# **Computer Music**

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

Music Fundamenta	ls	Units 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	I & Brain	3-5
Select one of the fo	llowing:	
MUSIC 1A	Music, Mind, and Human Behavior	
MUSIC 251	Psychophysics and Music Cognition	
MUSIC 351A	Seminar in Music Perception and Cognition	
PSYCH 30	Introduction to Perception	
PSYCH 50	Introduction to Cognitive Neuroscience	
Music HCI/Design		3-5
Select one of the fo	llowing:	
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 fo	llowing:	
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-dmr-concentration/).

Units

Select five courses, including at least one course from each of the  $\,$  15-25 first four areas:

Philosophical Inqu	iry
Select one of the fo	ollowing:
MS&E 234	Data Privacy and Ethics
MS&E 254	The Ethical Analyst
PHIL 164	Central Topics in the Philosophy of 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

PHIL 187	Philosophy of Action	PSYCH 205	Foundations of Cognition
PHIL 194M	Capstone Seminar. Consequences for Ethics	PSYCH 212	Classic and contemporary social psychology research
PHIL 359	Topics in Logic, Information and Agency	PSYCH 215	Mind, Culture, and Society
PHIL 377	Social Agency	PSYCH 223	Social Norms
PHIL 386	Truth as the aim of belief and inquiry	PSYCH 232	Brain and Decision
PHIL 388	Topics in Normativity	PSYCH 251	Experimental Methods
POLISCI 131L	Modern Political Thought: Machiavelli to Marx and Mill	PSYCH 270	The Self: Representations and Interventions
POLISCI 230A	Classical Seminar. Origins of Political Thought	SOC 114 SOC 115	Economic Sociology Topics in Economic Sociology
PSYCH 160	Seminar on Emotion	SOC 120	Interpersonal Relations
	ts only if taken for 3 or more units, in	SOC 126	Introduction to Social Networks
	policy for all core courses.	SYMSYS 203	Cognitive Science Perspectives on
Formal Decision The	ories	31W313 203	Humanity and Well-Being
Select one of the foll	owing:	SYMSYS 275	Collective Behavior and Distributed
ECON 51	Economic Analysis II		Intelligence
ECON 136	Market Design	Practical Tools and	Applications
ECON 160	Game Theory and Economic Applications	Select one of the fol	
ECON 180	Honors Game Theory	CEE 206	Decision Analysis for Civil and
ECON 289	Advanced Topics in Game Theory and		Environmental Engineers
	Information Economics	CS 181	Computers, Ethics, and Public Policy
INTLPOL 204A	Microeconomics for Policy	CS 182	Ethics, Public Policy, and Technological
MGTECON 613	Foundations of Game Theory		Change
MGTECON 616	Topics in Microeconomic Theory	CS 228	Probabilistic Graphical Models: Principles
MS&E 232	Introduction to Game Theory		and Techniques
PHIL 154	Modal Logic	CS 238	Decision Making under Uncertainty
PHIL 351	Representation Theorems	CS 239	Advanced Topics in Sequential Decision
PHIL 351C	Formal Methods in Ethics	00.0050	Making
PHIL 351D	Measurement Theory	CS 325B	Data for Sustainable Development
PHIL 359	Topics in Logic, Information and Agency	ECON 135	Foundations of Finance
POLISCI 356A	Formal Theory I: Game Theory for Political	ECON 136	Market Design
	Science	ECON 137	Decision Modeling and Information
PUBLPOL 51	Microeconomics for Policy	ECON 141	Public Finance and Fiscal Policy
	ts only if taken for 3 or more units, in	ECON 150	Economic Policy Analysis
	policy for all core courses.	ECON 155	Environmental Economics and Policy
Empirical Findings ar	nd Explanations	ECON 162	Games Developing Nations Play
Select one of the foll	owing:	ECON 247	Labor Economics II
BIO 150	Human Behavioral Biology	MS&E 152	Introduction to Decision Analysis
COMM 172	Media Psychology	MS&E 180	Organizations: Theory and Management
ECON 178	Behavioral Economics	MS&E 250A	Engineering Risk Analysis
ECON 179	Experimental Economics	MS&E 250B	Project Course in Engineering Risk Analysis
ECON 279	Behavioral and Experimental Economics II	MS&E 251	Introduction to Stochastic Control with
GSBGEN 646	Behavioral Economics and the Psychology of Decision Making	MS&E 252	Applications Decision Analysis I: Foundations of
MS&E 389	Seminar on Organizational Theory		Decision Analysis
POLISCI 351B	Economic Analysis of Political Institutions	MS&E 352	Decision Analysis II: Professional Decision Analysis
POLISCI 351C	Institutions and Bridge-Building in Political Economy	MS&E 353	Decision Analysis III: Frontiers of Decision
PSYCH 45	Introduction to Learning and Memory	MCOESEE	Analysis
PSYCH 50	Introduction to Cognitive Neuroscience	MS&E 355	Influence Diagrams and Probabilistics Networks
PSYCH 70	Self and Society: Introduction to Social Psychology	POLISCI 152	Introduction to Game Theoretic Methods in Political Science
PSYCH 75	Introduction to Cultural Psychology	POLISCI 153	Thinking Strategically
PSYCH 80	Introduction to Personality and Affective	SYMSYS 201	Digital Technology, Society, and Democracy
	Science	SYMSYS 271	Group Democracy
PSYCH 154	Judgment and Decision-Making	SYMSYS 271	Collective Behavior and Distributed
PSYCH 160	Seminar on Emotion	31W313 273	Intelligence

Methodological Foundations	
DIOMEDIN OF 1 Outcomes Amelicais	
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 1	5-25

# **Human-Computer Interaction**

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

		Units
<b>HCI Introduction</b>		3-5
CS 147	Introduction to Human-Computer Interaction Design	3-5
HCI-Project-Based Co	ourses	3-4
Select one of the follo	owing:	
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 247I	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 People with Good Habits & Behavior Change	
EDUC 303	Designing Learning Spaces	
EDUC 391	Engineering Education and Online Learning	
ENGR 110	Perspectives in Assistive Technology (ENGR 110)	
MED 275B	Biodesign Fundamentals	
SOC 167VP	Justice + Poverty Innovation:Create new solutions for people to navigate housing, medical, & debt	
<b>HCI Social and Psycl</b>	hological Aspects	3-5
Select one of the foll	owing:	
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	
HCI Programming		3-4
Select one of the foll	•	
CS 108	Object-Oriented Systems Design	
CS 142	Web Applications	
CS 148	Introduction to Computer Graphics and Imaging	
LINGUIST 180	From Languages to Information	
HCI Empirical Metho		3-5
Select one of the foll	3	
COMM 106	Communication Research Methods	
CS 347	Human-Computer Interaction: Foundations 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, 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	Introduction to Statistical Inference	
	STATS 202	Data Mining and Analysis	
	STATS 263	Design of Experiments	
T	otal Units		15-23

# Learning

PSYCH 169

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

u	ndergraduatesconce	entrations/learning-concentration/).	
			Units
S	elect five courses fr	om at least two of the following three areas:	15-25
C	omputational Learn	ing	
	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	
Н	luman 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	

Advanced Seminar on Memory

PSYCH 202	Cognitive Neuroscience	
PSYCH 204	Computation and Cognition: The Probabilistic Approach	
PSYCH 251	Experimental Methods	
PSYCH 265	Social Psychology and Social Change	
PSYCH 266	Current Debates in Learning and Memory	
<b>Learning Environmen</b>	t Design	
COMM 322	Advanced Studies in Behavior and Social Media	
CS 147	Introduction to Human-Computer Interaction Design	
CS 194H	User Interface Design Project	
EDUC 211	Beyond Bits and Atoms - Lab	
EDUC 230	Learning Experience Design	
EDUC 236	Beyond Bits and Atoms: Designing Technological Tools	
EDUC 281	Technology for Learners	
EDUC 298	Seminar on Teaching Introductory Computer Science	
EDUC 303	Designing Learning Spaces	
EDUC 328	Topics in Learning and Technology: Core Mechanics for Learning	
EDUC 333A	Understanding Learning Environments	
EDUC 342	Child Development and New Technologies	
EDUC 391	Engineering Education and Online Learning	
EDUC 426	Unleashing Personal Potential: Behavioral Science and Design Thinking Applied to Self	
MUSIC 257	Neuroplasticity and Musical Gaming	
SYMSYS 245	Cognition in Interaction Design	
SYMSYS 255	Building Digital History: Informatics of Social Movements and Protest	
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:	

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

DOVOLLOGO	Naturally and David Control
PSYCH 290	Natural Language Processing & Text-Based Machine Learning in the Social Sciences
SYMSYS 112	Challenges for Language Systems
Phonetics/Phonolog	
LINGUIST 105	Phonetics
LINGUIST 110	Introduction to Phonology
LINGUIST 112	Seminar in Phonology: Stress, Tone, and
	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
-	ics/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	Neural Network Models of Cognition
Sociolinguistics and	
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		15-21

# **Neurosciences**

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

Select five courses, from at least three of the following six areas, and at least two of the five courses must be from the first two

# **Basic Neuroscience**

Select at least on	e 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 Behavior	
BIO 154	Molecular and Cellular Neurobiology	
HUMBIO 4A	The Human Organism	
NBIO 206	The Nervous System	
NBIO 258	Information and Signaling Mechanisms in Neurons and Circuits	
PSYCH 121	Ion Transport and Intracellular Messengers	
PSYCH 141	Cognitive Development	
PSYCH 205	Foundations of Cognition	
	s a 6-unit course, which counts as two urses, 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, Technology, and Application			
Biological and Computational Approaches to Vision				
CS 131	Computer Vision: Foundations and			
63 131	Applications			
CS 231A	Computer Vision: From 3D Reconstruction to Recognition			
CS 231N	Convolutional Neural Networks for Visual Recognition			
PSYCH 30	Introduction to Perception			
PSYCH 221	Image Systems Engineering			
PSYCH 250	High-level Vision: From Neurons to Deep Neural Networks			
Philosophical and The	eoretical Approaches			
APPPHYS 293	Theoretical Neuroscience			
NBIO 101	Social and Ethical Issues in the 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 Foun	dations			
BIOE 291	Principles and Practice of Optogenetics for Optical Control of Biological Tissues			
CS 205L	Continuous Mathematical Methods with an 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: Precalculus			
PSYCH 187	Research Methods in Cognition & Development			
PSYCH 204A	Human Neuroimaging Methods			
PSYCH 251	Experimental Methods			
PSYCH 252	Statistical Methods for Behavioral and Social Sciences			
PSYCH 253	Advanced Statistical Modeling			
STATS 110	Statistical Methods in Engineering and the Physical Sciences			
STATS 141	Biostatistics			
STATS 191	Introduction to Applied Statistics			
STATS 200	Introduction to Statistical Inference			
Total Units		15-25		

# **Philosophical Foundations**

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

		Units
Area 1		7-8
Select two of the	following:	
PHIL 180	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 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	٥.
Area 2		3-5
Select one of the follo		
PHIL 102 PHIL 170	Modern Philosophy, Descartes to Kant	
PHIL 170 PHIL 170B	Ethical Theory	
PHIL 170B	Metaphor Justice	
PHIL 171	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 PHIL 175	Aesthetics	
PHIL 175 PHIL 176	Philosophy of Law	
	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		3-4
Select one of the follo	-	
PHIL 152	Computability and Logic	
PHIL 154 PHIL 351C	Modal Logic Formal Methods in Ethics	
PHIL 351C		
PHIL 3500	Logic and Artificial Intelligence Research Seminar on Logic and Cognition	
PHIL 359	Topics in Logic, Information and Agency	
Area 4	Topics in Logic, information and Agency	3-4
Select one of the follo	owina:	3 4
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 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 Philosophy	
PHIL 360	Grad Seminar. Philosophy of Neuroscience	
PHIL 385B	Topics in Metaphysics and Epistemology. Situations and Attitudes	
DOVOLL 160	Seminar on Emotion	
PSYCH 160	Semillal On Emolion	

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 16-21

## **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 guarter 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 immediately below. This block of general University information is required. 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 of Biology. 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**

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, 1940- Present	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 200Y	Honors Thesis and Senior Thesis Research	3-5
AFRICAAM 200Z	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: 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 American History, 1865-1965	5
HUMBIO 122S	Social Class, Race, Ethnicity, and Health	4
PSYCH 183	SPARQ Lab	2-3
SOC 45Q	Understanding Race and Ethnicity in American Society	4
SOC 135	Poverty, Inequality, and Social Policy in the United States	3-4
SOC 140	Introduction to Social Stratification	3
SOC 149	The Urban Underclass	4
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 200Z	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: 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: Research in Writing and Writing Instruction	3-5
EDUC 245	Understanding Racial and Ethnic Identity Development	3-5
EDUC 322	Community-based Research As Tool for Social Change:Discourses of Equity in Communities & Classrooms	3-5
HISTORY 11W	Service-Learning Workshop on Issues of Education Equity	1
HISTORY 255E	Education, Race, and Inequality in African 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 United States	3-4
TAPS 32	The 5th Element: Hip Hop Knowledge, 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 community-based 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	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
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, 1940- Present	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 Legacy	4-5
MUSIC 18A	Jazz History: Ragtime to Bebop, 1900-1940	3
MUSIC 18B	Jazz History: Bebop to Present, 1940- Present	3
SOC 119	Understanding Large-Scale Societal 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.

		Units
AFRICAAM 3E	Michelle Obama in American Culture	1
AFRICAAM 5I	Hamilton: An American Musical	1
AFRICAAM 10A	Introduction to Identity, Diversity, and Aesthetics: Arts, Culture, and Pedagogy	1
AFRICAAM 19	Studies in Music, Media, and Popular Culture: The Soul Tradition in African American Music	3-4
AFRICAAM 21	African American Vernacular English	3-5
AFRICAAM 32	The 5th Element: Hip Hop Knowledge, Pedagogy, and Social Justice	1-5
AFRICAAM 36	REPRESENT! Covering Race, Culture, and Identity In The Arts through Writing, Media, and Transmedia.	5
AFRICAAM 37	Contemporary Choreography: Chocolate Heads Performance Project	2
AFRICAAM 43	Introduction to English III: Introduction to African American Literature	3-5
AFRICAAM 45	Dance Improvisation from Freestyle to Hip Hop	1-2
AFRICAAM 71	Introduction to Capoeira: An African Brazilian Art Form	1
AFRICAAM 75E	Black Cinema	2
AFRICAAM 94	Public Space in Iran: Murals, Graffiti, Performance	3-4
AFRICAAM 117J	Race, Gender, and Sexuality in Contemporary American Film	4-5
AFRICAAM 122E	Art in the Streets: Identity in Murals, Site- specific works, and Interventions in Public Spaces	4
AFRICAAM 127A	Can't Stop Won't Stop: A History Of The Hip-Hop Arts	2-4
AFRICAAM 128	Roots Modern Experience - Mixed Level	1
AFRICAAM 154G	Black Magic: Ethnicity, Race, and Identity in Performance Cultures	3-4
AFRICAAM 156	Performing History: Race, Politics, and Staging the Plays of August Wilson	4
AFRICAAM 159	James Baldwin & Twentieth Century Literature	5

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
AFRICAAM 176B	Magic Documentary Fictions	4	ASNAMST 144	Transforming Self and Systems: Crossing Borders of Race, Nation, Gender, Sexuality,	5
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
AFRICAAM 194A	Digital Cultures Topics in Writing & Rhetoric: Freedom's	4	ASNAMST 157	An Introduction to Asian American Literature: The Short Story	3
	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 Justice and Black Vernacular Cultures	5	CHILATST 109	Zapata Mural Archive & History Project GENTE: An incubator for transforming	5
AFRICAAM 200X	Honors Thesis and Senior Thesis Seminar	5	00145147.51.0	national narratives	
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 Wondrous Lives	3-5
AFRICAST 127	African Art and Politics, c. 1900 - Present	4	COMPLIT 133A	Literature and Society in Africa and the	4
AMSTUD 3E	Michelle Obama in American Culture	1	COMI EN 199A	Caribbean	
AMSTUD 5I AMSTUD 12A	Hamilton: An American Musical Introduction to English III: Introduction to	3-5	COMPLIT 149	The Laboring of Diaspora & Border Literary Cultures	3-5
AMSTUD 15	African American Literature Global Flows: The Globalization of Hip Hop	1-2	COMPLIT 348	US-Mexico Border Fictions: Writing La Frontera, Tearing Down the Wall	3-5
AMOTUD F10	Art, Culture, and Politics	4	CSRE 3E	Michelle Obama in American Culture	1
AMSTUD 51Q	Comparative Fictions of Ethnicity	4 3-5	CSRE 5I	Hamilton: An American Musical	1
AMSTUD 91A AMSTUD 117	Asian American Autobiography/W Race, Gender, and Sexuality in	3-5 4-5	CSRE 10A	Introduction to Identity, Diversity, and	1
	Contemporary American Film		CSRE 10AY	Aesthetics: Arts, Culture, and Pedagogy Pacific Standard Time LA/LA creative	1-2
AMSTUD 151	Migration and Diaspora in American Art, 1800-Present	4		projects in a Celebration Beyond Borders	
AMSTUD 178	Ethnicity and Dissent in United States Art	4	CSRE 21	African American Vernacular English	3-5
AMSTUD 186D	and Literature  Asian American Art: 1850-Present	4	CSRE 44	Living Free: Embodying Healing and Creativity in The Era of Racial Justice	1-4
AMSTUD 197	Dance in Prison: The Arts, Juvenile Justice,	3		Movements	
	and Rehabilitation in America		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	Ethnicity and Dissent in United States Art	4	CSRE 82G	Making Palestine Visible	3-5
	and Literature		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: African American Art and Culture	5	CSRE 123A	Contemporary American Film  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	30 1 13	Cultures	5 0
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	3-4
CODE 156T	Performance Cultures	4
CSRE 156T	Performing History: Race, Politics, and Staging the Plays of August Wilson	
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	1-2
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	3-5
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

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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

# **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:

			Units
Introd	uctory Course		5
Prefer	ably taken in fre	eshman or sophomore year.	
POLIS	CI 1	The Science of Politics	5
Metho	ds Course		5
Select	one of the follo	owing:	
POI	LISCI 150A	Data Science for Politics	
STA	ATS 60	Introduction to Statistical Methods: Precalculus	
STA	ATS 101	Data Science 101	
ECO	ON 102A	Introduction to Statistical Methods (Postcalculus) for Social Scientists	
CS	106A	Programming Methodology	
Two M	lajor Tracks		40
Each r		track and 15 units in a secondary track.  oct two tracks from the list below on which	
1. J	lustice and Law		
2. l	nternational Rel	ations	
3. E	lections, Repre	sentation, and Governance	
4. F	Political Econom	ny and Development	
5. E	ata Science		
Additi	onal Coursewor	k	20
		sience coursework, which may include no lirected reading.	
Writin	g in the Major (	WIM) Course	
the dis the Ma taken Course	scipline by taking ajor (WIM) cour to satisfy the P	ity for sustained research and writing in ag at least one Political Science Writing in se. This course may count toward the units rimary Track, Secondary Track, or Additional ents. Select one of the courses listed below.	
P01	LISCI 103	Justice	

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

#### **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.

iotai units	70

The classes that count toward each track can be found below.

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	3-5
POLISCI	133Z	Ethics and Politics in Public Service	4
POLISCI	134	Ethics for Activists	5
POLISCI	134L	Introduction to Environmental Ethics	4-5
POLISCI	134P	Contemporary Moral Problems	4-5
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, 1865- present	3-5
POLISCI	222S		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	232T	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	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	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	3-5
POLISCI	336	Introduction to Global Justice	4

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

# **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 101Z	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 211N	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 311N	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 Past	3
POLISCI 23Q	Analyzing the 2016 Elections	3
POLISCI 25N	The US Congress in Historical and Comparative Perspective	3
POLISCI 27N	Thinking Like a Social Scientist	3
POLISCI 28N	The Changing Nature of Racial Identity in American Politics	3
POLISCI 29N		3

POLISCI 3	B1N	Political Freedom: Rights, Justice, and Democracy in the Western Tradition	3
POLISCI 7	72	Policy, Politics and the 2020 Elections: What 2020 Means for Future Campaigns and Elections	2
POLISCI 7	'5	The 2018 Midterm Election: Making Your Voice Heard	2-3
POLISCI 1	02	Introduction to American Politics and Policy: The Good, The Bad, and The Ugly	4-5
POLISCI 1	04	Introduction to Comparative Politics	5
POLISCI 1	10D	War and Peace in American Foreign Policy	3-5
POLISCI 1	10Y	War and Peace in American Foreign Policy	3-5
POLISCI 1	20B	Campaigns, Voting, Media, and Elections	4-5
POLISCI 1	20C	American Political Institutions in Uncertain Times	5
POLISCI 1	20Z	What's Wrong with American Government? An Institutional Approach	4
POLISCI 1	21	Political Power in American Cities	5
POLISCI 1	21L	Racial-Ethnic Politics in US	5
POLISCI 1	24L	The Psychology of Communication About Politics in America	4-5
POLISCI 1	25M	Latino Social Movements	5
POLISCI 1	25P	The First Amendment: Freedom of Speech and Press	4-5
POLISCI 1	25S	Chicano/Latino Politics	5
POLISCI 1	26P	Constitutional Law	3
POLISCI 1	28F		3
POLISCI 1	28S		5
POLISCI 1	30	20th Century Political Theory: Liberalism and its Critics	5
POLISCI 1	31L	Modern Political Thought: Machiavelli to Marx and Mill	5
POLISCI 1		The Ethics of Elections	5
POLISCI 1	34P	Contemporary Moral Problems	4-5
POLISCI 1		Introduction to Environmental Ethics	4-5
POLISCI 1		Citizenship	5
POLISCI 1		The Ethics of Democratic Citizenship	5
POLISCI 1		Populism and the Erosion of Democracy	5
POLISCI 1		Comparative Corruption	3
POLISCI 1		Comparative Democratic Development	5
POLISCI 1		Gender, Identity, and Politics	5
POLISCI 1		The Politics of Inequality	5
POLISCI 1		Chinese Politics	3-5
POLISCI 1		Middle Eastern Politics	5
POLISCI 1		Data Science for Politics	5
POLISCI 2		Introduction to European Studies	5
POLISCI 2		American Foreign Policy: Interests, Values, and Process	5
POLISCI 2		Urban Policy Research Lab	5
POLISCI 2	220C	The Politics of the Administrative State	3-5
POLISCI 2		The Presidency	3-5
POLISCI 2	222	The Political Psychology of Intolerance	5
POLISCI 2			5
POLISCI 2		Public Opinion and American Democracy	5
POLISCI 2	223B	Money, Power, and Politics in the New Gilded Age	5
POLISCI 2	225C	Fixing US Politics: Political Reform in Principle and Practice	5
POLISCI 2	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 Comparative Perspective	3-5
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 Politics in America	4-5
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	3-5
POLISCI 355A	Data Science for Politics	5

# **Political Economy and Development**

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		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

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POLISCI 149T	Middle Eastern Politics	5
POLISCI 153	Thinking Strategically	5
POLISCI 153Z	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, 1865- present	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 241S	Spatial Approaches to Social Science	5
POLISCI 241T	Political Economy of Gender	5
POLISCI 244U	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 248S	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

Political Philosophy: The Social Contract

Comparative Democratic Development

Immigration and Multiculturalism

**Comparative Corruption** 

Gender, Identity, and Politics

Islam, Iran, and the West

African Politics

Chinese Politics

Tradition

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POLISCI 137A

POLISCI 141A

POLISCI 143S

POLISCI 146A

POLISCI 147

POLISCI 147B

POLISCI 148

POLISCI 149S

POLISCI 336S	Justice	4-5
POLISCI 337A	Political Philosophy: The Social Contract Tradition	4
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	3-5
POLISCI 354	Thinking Strategically	5

#### **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 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 Scientists	4
POLISCI 343A	Field Methods	3-5
POLISCI 344	Politics and Geography	3-5
POLISCI 347A	Games Developing Nations Play	3-5
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 Science	3-5
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/undergraduate-major/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:
  - 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	3-5
AFRICAST 112	AIDS, Literacy, and Land: Foreign Aid and Development in Africa	3-5
ANTHRO 182D		4-5
ANTHRO 337	VOICES	5
CLASSICS 116	Human Rights in Comparative and Historical Perspective	3-5
COMM 106	Communication Research Methods	4-5
COMM 154	The Politics of Algorithms	4-5
COMM 157	Information Control in Authoritarian Regimes	4-5
CS 106A	Programming Methodology	3-5
CS 106B	Programming Abstractions	3-5
CS 109	Introduction to Probability for Computer Scientists	3-5
CSRE 220	Public Policy Institute	1-2
EARTHSYS 10	Introduction to Earth Systems	4
ECON 1	Principles of Economics	5
ECON 50	Economic Analysis I	5
ECON 51	Economic Analysis II	5

ECON 102A Introduction to Statistical Methods (Postcalculus) for Social Scientists  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 4  Comparative Perspectives  EDUC 220D History of School Reform: Origins, Policies, Outcomes, and Explanations  HISTORY 102 History of the International System since 1914  HISTORY 106A Global Human Geography: Asia and Africa 5  HISTORY 106B Global Human Geography: Europe and Americas  HISTORY 152 History of American Law 5  HISTORY 153 Creation of the Constitution 5  HISTORY 154 History of Higher Education in the U.S. 4  HISTORY 157 The Islamic Republics: Politics and Society in Iran, Afghanistan and Pakistan  HISTORY 261G Presidents and Foreign Policy in Modern History  HUMBIO 120 Health Care in America: An Introduction to U.S. Health Policy 3  HUMBIO 120A American Health Policy 3  HUMBIO 129S Global Public Health 13  HUMBIO 173 The Future of Global Cooperation 3-4  INTLPOL 217 The Future of Global Cooperation 3-4  INTLPOL 219 U.S. Policy toward Northeast Asia 4  INTLPOL 244 U.S. Policy toward Northeast Asia 4  INTLPOL 245 China's Foreign Policies: Objectives, Instruments, and Impacts  INTLPOL 280 Transitional Justice, Human Riights, and 1-5  INTNLREL 140C The U.S., U.N. Peacekeeping, and 4-5  Humanitarian War International Criminal Tribunals  INTNLREL 140C The U.S., U.N. Peacekeeping, and 5-1  Humanitarian War International Relations  INTNLREL 140 Challenging the Status Quo: Social 5-1  Entrepreneurs Advancing Democracy, Development and Justice  INTNLREL 142 Challenging the Status Quo: Social 5-1  Entrepreneurs Advancing Democracy, Development and Justice  INTNLREL 142 Challenging the Status Quo: Social 5-5  Entrepreneurs Advancing Democracy, Development and Justice  INTNLREL 182 The Great War 5-1  Hospital Policy Policial Policial Cooperation 5-1  History Policial Economy of Germany in Euro	ECON 52	Economic Analysis III	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 EDUC 220D History of School Reform: Origins, Policies, 3-5 Outcomes, and Explanations HISTORY 102 History of the International System since 1914 HISTORY 106A Global Human Geography. Asia and Africa 5 HISTORY 106B Global Human Geography. Europe and Americas HISTORY 152 History of American Law 5 HISTORY 153 Creation of the Constitution 5 HISTORY 154 History of Higher Education in the U.S. 4-1 HISTORY 157 The Islamic Republics: Politics and Society in Iran, Afghanistan and Pakistan HISTORY 2616 Presidents and Foreign Policy in Modern History HUMBIO 120 Health Care in America: An Introduction to U.S. Health Policy 3 HUMBIO 129S Global Public Health Policy 3 HUMBIO 172B Children, Youth, and the Law 3 HUMBIO 173 The Future of Global Cooperation 3-4 INTLPOL 217 The Future of Global Cooperation 3-4 INTLPOL 244 U.S. Policy toward Northeast Asia 4 INTLPOL 245 China's Foreign Policies: Objectives, Instruments, and Impacts INTLPOL 280 Transitional Justice, Human Rights, and International Criminal Tribunals INTNLREL 123 The Future of He European Union: Challenges and Opportunities INTNLREL 140A International Law and International 4-5 Relations INTNLREL 140 The U.S., U.N. Peacekeeping, and Humanitarian War INTNLREL 140 The U.S., U.N. Peacekeeping, and Humanitarian War INTNLREL 140 The Great War Water Law 3 MS&E 193 Technology and National Security: Past, 7-4 Present, and Future Of Heason of Berlin for International Politics OSPBER 7 Political Economy of Germany in Europe: an Historical-Comparative Perspective OSPBER 7 Political Economy of Germany in Europe: an Historical-Comparative Perspective OSPBER 82 Globalization and Germany 4-5 Identity in the EU		•	
ECON 106 World Food Economy ECON 155 Environmental Economics and Policy ECON 180 Honors Game Theory EDUC 178 Latino Families, Languages, and Schools 3-5 EDUC 197 Gender and Education in Global and Comparative Perspectives EDUC 220D History of School Reform: Origins, Policies, Outcomes, and Explanations HISTORY 102 History of the International System since 1914 HISTORY 106A Global Human Geography: Asia and Africa 5 HISTORY 106B Global Human Geography: Europe and Americas 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 158C History of Higher Education in the U.S. 3-5 HISTORY 261G Presidents and Foreign Policy in Modern History HUMBIO 120 Health Care in America: An Introduction to U.S. Health Care in America: An Introduction to U.S. Health Care in America: An Introduction to U.S. Health Policy HUMBIO 129A American Health Policy 3 HUMBIO 172B Children, Youth, and the Law 3 HUMBIO 173 The Future of Global Cooperation 3-4 HITLPOL 217 The Future of Global Cooperation 3-4 HITLPOL 240 U.S. Policy toward Northeast Asia 1 HITLPOL 240 China's Foreign Policies: Objectives, Instruments, and Impacts HITLPOL 240 Transitional Justice, Human Rights, and International Criminal Tribunals INTLPOL 280 Transitional Justice, Human Rights, and International Criminal Tribunals INTNLREL 140C The U.S. U.N. Peacekeeping, and Humanitarian War 1 HITLPOL 280 Transitional Justice, Human Rights, and Selations INTNLREL 140C The U.S. U.N. Peacekeeping, and Humanitarian War 1 HITLPOL 290 Water Law 3 HITLPOL 291 Transitional Justice, Human Rights, and 3-5 Entrepreneurs Advancing Democracy, Development and Justice INTNLREL 140C The U.S. U.N. Peacekeeping, and Humanitarian War 1 HITLPOL 280 Transitional Security Past, Present, and Future OSPBER 7 Fich hin ein Berliner' Lessons of Berlin for International Politics  OSPBER 79 Political Economy of Germany in Europe: an Historical-Comparative Perspective  OSPBER 79 Political Economy of Germany in Europe: an			
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Relations  INTNLREL 140C The U.S., U.N. Peacekeeping, and Humanitarian War  INTNLREL 142 Challenging the Status Quo: Social Entrepreneurs Advancing Democracy, Development and Justice  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  OSPBER 77 "Ich bin ein Berliner" Lessons of Berlin for International Politics  OSPBER 79 Political Economy of Germany in Europe: an Historical-Comparative Perspective  OSPBER 82 Globalization and Germany 4-5  OSPBER 126X A People's Union? Money, Markets, and Identity in the EU	INTNLREL 123	• • • • • • • • • • • • • • • • • • •	5
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Entrepreneurs Advancing Democracy, Development and Justice  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  OSPBER 77 "Ich bin ein Berliner" Lessons of Berlin for International Politics  OSPBER 79 Political Economy of Germany in Europe: an Historical-Comparative Perspective  OSPBER 82 Globalization and Germany 4-5  OSPBER 126X A People's Union? Money, Markets, and Identity in the EU	INTNLREL 140C		5
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	OSPCPTWN 31	in the Lo	3

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 198Z	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:

- 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.
- 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.
- 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		
GEOLSCI 102		
GEOLSCI 103	Earth Materials: Rocks in Thin Section	3
GEOLSCI 104		
GEOLSCI 105	Introduction to Field Methods	3
GEOLSCI 106	Sediments: The Book of Earth's History	3
GEOLSCI 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**

	Units
Shaping the Future of the Bay Area	3-5
What Makes a Habitable Planet?	
Earth Sciences of the Hawaiian Islands	
Science of Soils	
Physical Hydrogeology	
Soil and Water Chemistry	
Ice, Water, Fire	
	What Makes a Habitable Planet? Earth Sciences of the Hawaiian Islands Science of Soils Physical Hydrogeology Soil and Water Chemistry

or GEOPHYS 190 Near-Surface Geophysics: Imaging Groundwater Systems

#### **Biogeosciences**

	Units
Evolution of Marine Ecosystems	3-4
<b>Evolution of Terrestrial Ecosystems</b>	
Microbial Physiology	
Geomicrobiology	
	Evolution of Terrestrial Ecosystems Microbial Physiology

#### **Earth Materials and Geochemistry**

		Units
GEOLSCI 135	Sedimentary Geochemistry and Analysis	3-4
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**

	U	nits
GEOPHYS 120	Ice, Water, Fire	3-5
or GEOPHYS 110	Introduction to the Foundations of Contemporal Geophysics	ry
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**

		Units
CS 106A	Programming Methodology	3-5
or ENERGY 160	Uncertainty Quantification in Data-Centric Simulations	
or ESS 164	Fundamentals of Geographic Information S (GIS)	cience
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 Sciences	1-10
GEOLSCI 197	Senior Thesis	3-5
GEOLSCI 198	Special Problems in Geological Sciences	1-10
Advanced Semina	ars	

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:

	1	Units
MATH 19	Calculus	10
& MATH 20	and Calculus	
& MATH 21	and Calculus	
or a score of 4-5 on the	he Calculus BC exam	
And at least TWO of t	the following:	
CME 100	Vector Calculus for Engineers	5
or MATH 51	Linear Algebra, Multivariable Calculus, and Mo Applications	dern
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 Linear Alg	ebra

#### **Required Supporting Sciences (16-24 Units)**

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

determined by the rei	evant departments.	
		Units
Chemistry		
CHEM 31A & CHEM 31B	Chemical Principles I and Chemical Principles II	5-10
or CHEM 31M	Chemical Principles: From Molecules to Solid	ds
or a score of 4-5 on t	he Chemistry AP exam	
And one of the follow	ving:	
MATSCI 194	Thermodynamics and Phase Equilibria	3-4
or CHEM 171	Foundations of Physical Chemistry	
introductory sequence	etry, students may choose between des in biology and physics. This choice or discussion with an adviser and based on a	

### **Biology**

BIO 82	Genetics	4
or BIO 83	Biochemistry & Molecular Biology	
or BIO 84	Physiology	
or BIO 86	Cell Biology	
And one of the follow	ring:	
BIO 81	Introduction to Ecology	4
or BIO 85	Evolution	
or ESS 151	Biological Oceanography	
or BIO 116	Ecology of the Hawaiian Islands	

Or

Physics		
Select one of the following Series:		9-10
Series A		
PHYSICS 21 & PHYSICS 22 & PHYSICS 23 & PHYSICS 24	Mechanics, Fluids, and Heat and Mechanics, Fluids, and Heat Laboratory and Electricity, Magnetism, and Optics and Electricity, Magnetism, and Optics Laboratory	10
Series B		
PHYSICS 41 & PHYSICS 43	Mechanics and Electricity and Magnetism	9

and Electricity and Magnetism Lab

PHYSICS 41 Mechanics & PHYSICS 45 and Light and Heat & PHYSICS 46 and Light and Heat Laboratory

9

#### 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

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)

		Units
GEOLSCI 1	Introduction to Geology	5
GEOLSCI 90		

& PHYSICS 44

Series C

Units

GEOLSCI 102		
GEOLSCI 104		0-4
or ESS 155	Science of Soils	
GEOLSCI 150	Senior Seminar. Issues in Earth Sciences	3
ENERGY 160	Uncertainty Quantification in Data-Centric Simulations	3
or STATS 110	Statistical Methods in Engineering and the Physical Sciences	
or CEE 203	Probabilistic Models in Civil Engineering	
or CME 106	Introduction to Probability and Statistics for Engineers	
ESS 220	Physical Hydrogeology	4
or GEOPHYS 12	D Ice, Water, Fire	
Total Units		15-19

### **Required Engineering (14-16 Units)**

		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)**

		Units
MATH 19	Calculus	3
MATH 20	Calculus	3
MATH 21	Calculus	4
CME 100	Vector Calculus for Engineers	5
CME 102	Ordinary Differential Equations for Engineers	5
PHYSICS 41	Mechanics	4
CHEM 31A & CHEM 31B	Chemical Principles I and Chemical Principles II	5-10
or CHEM 31M	Chemical Principles: From Molecules to So	olids
BIO 82	Genetics	4
or BIO 83	Biochemistry & Molecular Biology	
or BIO 84	Physiology	
or BIO 86	Cell Biology	
BIO 81	Introduction to Ecology	4
or BIO 85	Evolution	
or ESS 151	Biological Oceanography	
or BIO 116	Ecology of the Hawaiian Islands	
Total Units		37-42

#### **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**

		Units
CEE 172	Air Quality Management	3-4
or ESS 141	Remote Sensing of the Oceans	

or EARTHSYS 146	AAtmosphere, Ocean, and Climate Dynamics: The Atmospheric Circulation
or EARTHSYS 146	BAtmosphere, 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	
	Units
CEE 177	Aquatic Chemistry and Biology 3-4
or CHEMENG 174	Environmental Microbiology I

CI	EE 177	Aquatic Chemistry and Biology	3-4
	or CHEMENG 174	Environmental Microbiology I	
	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**

CEE 166A	Watershed Hydrologic Processes and Models	3-4
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 Groundwate Systems	r

#### 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 GEOLSCI 170		

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

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List 1. Relevant Introductory Seminars or courses

CEE 64	Air Pollution and Global Warming: History, Science, and Solutions
or CEE 29N (NO LC	
or EARTHSYS 41N	The Global Warming Paradox
or EARTHSYS 44N	The Invisible Majority: The Microbial World That Sustains Our Planet
or EARTHSYS 46N	Exploring the Critical Interface between the Lan and Monterey Bay: Elkhorn Slough
or EARTHSYS 46Q	Environmental Impact of Energy Systems: What are the Risks?
or EARTHSYS 56Q	
or GEOPHYS 20N	Predicting Volcanic Eruptions
or BIO 35N	Climate change ecology: Is it too late?
list 2 Off samples as	118000

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 (N	
or OSPAUSTL 30 (N	
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:

- 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)

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.

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

#### **III. Substantive Concentration**

SOC 167A

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:

Asia-Pacific Transformation

- 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 ( $\sim$  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
KORFA 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 and Culture
KOREA 120	Narratives of Modern and Contemporary 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 Gate	way Course	Cluster
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EASTASN 97	The International Relations of Asia since World War II
ECON 124	Economic Development and Challenges of 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 Clu	uster for China Subplan
CHINA 110	How to Be Modern in China: A Gateway to the World Course
CHINA 168	The Chinese Family
ESF 9	Education as Self-Fashioning: Chinese Traditions of the Self
or ESF 9A	Education as Self-Fashioning: Chinese Traditions of the Self
POLISCI 148	Chinese Politics
RELIGST 56	Exploring Chinese Religions
SOC 116	Chinese Organizations and Management
SOC 117A	China Under Mao

II. Proficiency of the Modern Chinese Language, at the Third-Year Level

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):

CHIN	LANG 1	First-Year Modern Chinese, First Quarter
CHIN	LANG 2	First-Year Modern Chinese, Second Quarter
CHIN	LANG 3	First-Year Modern Chinese, Third Quarter
Series B	(Heritage sp	eakers):
CHIN	LANG 1B	First-Year Modern Chinese for Bilingual Students, First Quarter
CHIN	LANG 2B	First-Year Modern Chinese for Bilingual Students, Second Quarter
CHIN	LANG 3B	First-Year Modern Chinese for Bilingual Students, Third Quarter

Series C (Summer Intensive Program):

CHINLANG 5

Units

#### 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 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.

CHINA 198C	Senior Research
CHINA 198H	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 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:

- 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.
- 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.
- 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).
- 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

Units 6-10

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

EASTASN 97

The International Relations of Asia since World War II

ECON 124	Economic Development and Challenges of 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 Clus	ster for Japan Subplan
JAPAN 82N	Joys and Pains of Growing Up and Older in Japan
JAPAN 110	Romance, Desire, and Sexuality in Modern Japanese Literature
JAPAN 122	Translating Cool: Globalized Popular Culture in Asia
JAPAN 148	Modern Japanese Narratives: Literature and Film
JAPAN 151	Japanese Business Culture and Systems
JAPAN 160	Classical Japanese Literature in Translation
JAPAN 184	Aristocrats, Warriors, Sex Workers, and Barbarians: Lived Life in Early Modern Japanese Painting

JAPAN 186

#### II. Proficiency of the Modern Japanese Language, at the Third-Year Level

45

Students must be proficient in modern Japanese 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 Japanese Language Instructor, enroll in the appropriate courses until the completion of third-year Japanese coursework.

First-year, Modern Japanese:

JAPANLNG 1	First-Year Japanese Language, Culture, and Communication, First Quarter
JAPANLNG 2	First-Year Japanese Language, Culture, and Communication, Second Quarter
JAPANLNG 3	First-Year Japanese Language, Culture, and Communication, Third Quarter

#### Second-year, Modern Japanese:

•	•
JAPANLNG 21	Second-Year Japanese Language, Culture, and Communication, First Quarter
JAPANLNG 22	Second-Year Japanese Language, Culture, and Communication, Second Quarter
JAPANLNG 23	Second-Year Japanese Language, Culture, and Communication. Third Quarter

Third-year, Modern Japanese

Tima year, Wodern oupanese.		
JAPANLNG 101	Third-Year Japanese Language, Culture, and Communication, First Quarter	
JAPANLNG 102	Third-Year Japanese Language, Culture, and Communication, Second Quarter	
JAPANLNG 103	Third-Year Japanese Language, Culture, and Communication, Third Quarter	

#### III. Additional Courses

A. Complete Three JAPAN courses at the 100-level with one in each of the following areas:

- Pre-modern Japan
- Modern Japan
- Japanese Linguistics

B. Four additional culture courses dealing with Japan primarily at the 100-level, as approved by the DUS or SSO.

C. Fulfill the Writing in the Major (WIM) requirement by taking JAPAN 138.

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JAPAN 138 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** 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.

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
- · 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

#### I. Gateway Courses

Units 6-10

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 major should consult with the DUS or SSO to make sure that courses fit under these categories

under these categor	ics.
East Asian Gateway	Course Cluster
THINK 53	Food Talks: The Language of Food
RELIGST 55	Exploring Zen Buddhism
HISTORY 92A	The Historical Roots of Modern East Asia
ECON 124	Economic Development and Challenges of East Asia
SOC 167A	Asia-Pacific Transformation
Gateway Course Clu	ster for Korea Subplan
KOREA 122	Translating Cool: Globalized Popular Culture in Asia
KOREA 101N	Kangnam Style: K-pop and the Globalization of Korean Soft Power

#### II. Three Years of Modern Korean

45

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 K	orean:
KORLANG 1	First-Year Korean, First Quarter
KORLANG 2	First-Year Korean, Second Quarter
KORLANG 3	First-Year Korean, Third Quarter
Second-year modern	n 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
<b>III. Additional Cours</b>	es

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:

- 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.
- 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.
- 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.

Units
I. Area Courses 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

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 15-30

9-15

# 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. 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**

6-10

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 minor should consult with the DUS or SSO to make sure that courses fit under these categories.

#### III. Additional Courses

9-15

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 15-30

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 third-year 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

6-10

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

9-10

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 15-30

#### I. Proficiency in modern Korean

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

6-10

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 23

# **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

Units

8

Ininking Matters	Jourses	
THINK 49	Stories Everywhere	4
Introductory Semi	nars	
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 24Q	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

- Courses can only be counted once, i.e., can only satisfy one requirement.
- 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 (3	•	
•	must be taken for 5 units.	
Historical courses		
One course in the 10	) series <sup>1</sup>	5
ENGLISH 10A	Introduction to English I: Encounters with the Monstrous in Early British Literature	
ENGLISH 10B	Introduction to English I: What Is Literary History?	
ENGLISH 10D	Introduction to English I: Women, Gender, and Sexuality in Early British Literature	
One course in the 11	I series <sup>2</sup>	5
ENGLISH 11A	Introduction to English II: From Milton to the Romantics	
ENGLISH 11B	Introduction to English II: American Literature and Culture to 1855	
ENGLISH 11C	Introduction to English II: Revolutionary Energies: Milton and the Transcendentalists	
One course in the 12	2 series <sup>3</sup>	5
ENGLISH 12A	Introduction to English III: Introduction to African American Literature	
ENGLISH 12C	Introduction to English III: Modern Literature	
Methodology course	es	
ENGLISH 160	Poetry and Poetics	5
ENGLISH 161	Narrative and Narrative Theory	5
Writing in the Major		
ENGLISH 5A	WISE: Unfinished Novels	
ENGLISH 5B	WISE: Mental Health and Literature, Midcentury to Present	
ENGLISH 5C	WISE: Revelation and Apocalypse: Literature at the End of the World 1300-2000	
ENGLISH 5D	WISE: Bad Reading: Pleasure and Politics in Literary Value	
ENGLISH 5E	WISE: The Novel of Love	
ENGLISH 5F	WISE: Serial Children's Literature: Lemony Snicket's A Series of Unfortunate Events	

WISE: Blackness and the American Canon

WISE: Dialogue in American Literature

One pr	e-1800 historic	cal course	5
The fo	llowing courses	s offered in 2019-20 fulfill this requirement.	
ENG	GLISH 115C	Hamlet and the Critics	
ENG	GLISH 251B	Paradise Lost	
ENG	GLISH 200C	Introduction to Manuscript Studies	
ENG	GLISH 201	The Bible and Literature	
ENG	GLISH 115G	Shakespeare: Five Tragedies	
ENG	GLISH 115E	Shakespeare and his Contexts: Race, Religion, Sexuality, Gender	
ENG	GLISH 107B	Literature of the English Revolution	
ENG	GLISH 237	Before Novels	
ENG	GLISH 122C	Medieval Fantasy Literature	
ENG	GLISH 114C	¿Books Promiscuously Read¿: Varieties of Renaissance Experience	
SLE	91	Structured Liberal Education	
SLE	92	Structured Liberal Education	
Fields	of Study		35-50 units
Each s	tudent must ch	noose one of five fields of study. See below	

Each student must choose one of five fields of study. See below for complete information.

Total Units

65-80

## **Transfer Credit and Course Equivalency**

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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

**ENGLISH 5G** 

**ENGLISH 5H** 

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
ENGLISH 90	Fiction Writing	5
or ENGLISH 91	Creative Nonfiction	
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		40

I Indian

#### **Poetry Concentration**

		Units
ENGLISH 90	Fiction Writing (Can be fulfilled with a prose literature seminar)	5
or ENGLISH 91	Creative Nonfiction	
ENGLISH 92	Reading and Writing Poetry	5
ENGLISH 192	Intermediate Poetry Writing (or any 192 series)	5
One literature course in poetry		5
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:

- 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.
- 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.
- 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:

- PHIL 80 Mind, Matter, and Meaning (WIM): Prerequisite: introductory philosophy course.
- 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.
- 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.

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

		Units
ENGLISH 196A	Honors Seminar. Critical Approaches to Literature	5
ENGLISH 197	Seniors Honors Essay	10
Total Units		15

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