

2002-2003 Catalog

BIOLOGY AND SOCIETY

A Biology Department Major
Arizona State University

Biology and Society is an emphasis track within ASU's Bachelor's of Science in Biology program. It promotes the multi-disciplinary study of the biological sciences and their relevance to society, bringing together students and faculty from diverse departments to pursue interdisciplinary curricular and research opportunities.

I.	BIO 187 and 188 General Biology I & II	8
II.	BIO 311 Biology and Society	3
	BIO 314 Research Colloquium in Biology and Society I	2
	BIO 320 Fundamentals of Ecology or BIO 345 Organic Evolution	3
	BIO 340 General Genetics	4
	BIO 414 Research Colloquium in Biology and Society II	1
	Additional Research (e.g., BIO 484, BIO 495, BIO 499 or HON 493)	3

The remaining courses are determined by the student in consultation with a Biology and Society advisor, and must be distributed in the following areas:

III.	Upper division electives from BIO, PLB, MIC or LSC (West)	12
IV.	Interface courses: at least one 3 hour course from each of the three areas of Ethics, History or Philosophy of Science, and Science in Contemporary Society (see back page)	12
V.	Related Fields: Physical sciences (especially Chemistry)	11
	An approved course in statistics	3-4
VI.	Math Proficiency: MAT 251 Calculus for the Life Sciences or MAT 210 Brief Calculus (or any Calculus course)	3

For further information, stop by the Biology and Society office in LSC-206, visit our website at <http://lsvl.la.asu.edu/biosoc/> or contact Rita Yordy at (480) 965-8927 or rita.yordy@asu.edu.

INTERFACE COURSE REQUIREMENTS

This page describes the interface course requirement for the Biology and Society emphasis in the B.S. in Biology. Students must take at least one course from each of the three areas for a total of 12 hours. While these specific courses will fulfill the requirement without further approval, students may propose other courses as well. We will carefully review any courses proposed for their fit with rationale and objectives outlined below.

ETHICS

Includes rigorous analysis of ethics and values in the context of the products and process of life sciences.

BIO 394/HPS 394 Biomedical ethics	PHI 310 Environmental Ethics
BIO 416/HPS 410 Professional Values in Science	PHI 335 History of Ethics
PHI 305 Ethical Theory	REL 494 Bioethics
PHI 306 Applied Ethics	

HISTORY AND PHILOSOPHY OF SCIENCE

Focuses 1) on the development of science over time and the way science changes with and within society or 2) promote a deep understanding and appreciation of the nature of scientific arguments and logic, and of what counts as evidence in science.

BIO 316/HPS 330 History of Biology	HST 309 Exploration and Empire
BIO 318/HPS 331 History of Medicine	PHI 312 Theory of Knowledge
HPS 325/HST 385 Chinese Sci and Medicine	PHI 314 Philosophy of Science
HPS 322 History of Science	PHI 394 Philosophy of Biology
HPS 323 History of Science	

SCIENCE IN CONTEMPORARY SOCIETY

Must expose students to the methods of inquiry and results in the social study of science exploring contemporary interactions between biology and society. Economics, politics, law, anthropology, and such, are valuable here, where they clearly recognize and analyze current issues relating to both science and society, not just science.

BIO 302 Cancer and Heart Disease	BIO 344/HUM 371/HPS 311/REL 383 Origins: Evolution and Creation
BIO 303 Radiation and Life	BIO 427 Fire or HST 460 History of Fire
BIO 304 Radiation Medicine and Biology	PGS 306 Environmental Psychology
BIO 394/AFR 317/ASB 394 Genes, Race and Society	SOC 331 Environmental Sociology
BIO 346/HPS 332/HUM 372 Darwinian Revolution	SOC 334 Technology and Society SOC 394 Sociology of Science

Department of Biology Curriculum Checksheet

2002-03

NAME	ASU ID	ADVISOR
B.S. Biology: Biology and Society	MINOR (IF ANY)	This checksheet is a guide to completing the appropriate coursework for this major. Please reference the catalog for specific requirements. ASU students are required to file a Declaration of Graduation before completion of 87 credit hours.

UNIVERSITY GENERAL STUDIES L, MA, CS, C, G, & H courses may be cross-listed in some cases. HU & SB courses MAY NOT be cross-listed. ASK YOUR ADVISOR.

COURSE	√	HRS	UD
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LITERACY COURSES (min. 1 upper div)

L:			
L: (e.g., PLB300)			

NUMERACY

Mathematics (MA): Calculus

Comp. Sci./Statistics (CS):

HUMANITIES/FINE ARTS (HU courses)

1.			
2.			

SOCIAL/BEHAVIORAL (SB courses)

1.			
2.			

UPPER DIVISION HU OR SB COURSE

1.			
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NATURAL SCIENCES (satisfied by major)

GENERAL STUDIES TOTALS	HRS	UD
(Do not count cross-listed courses twice)		

UNIVERSITY GENERAL STUDIES AWARENESS AREAS

CULTURAL DIVERSITY (C)

GLOBAL AWARENESS (G)

HISTORICAL AWARENESS (H)

SEMESTER HOUR TALLY	HRS	UD
GENERAL STUDIES TOTALS		
PROFICIENCY TOTALS		
CLAS TOTALS		
ELECTIVE/MINOR TOTALS		
MAJOR TOTALS		
GRAND TOTAL Minimum 120 hrs/45 hrs u.d.		

CLAS REQUIREMENTS Please see the back side of this sheet for further information

PROFICIENCY REQUIREMENTS

COURSE	√	HRS	UD
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FIRST-YEAR COMPOSITION

ENG 101		3	no
ENG 102		3	no

FOREIGN LANGUAGE (202 level required)

101		4	no
102		4	no
201		4	no
202		4	no

MATHEMATICS (calculus required)

Calculus (MAT 251 rec)			
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PROFICIENCY TOTALS			
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CLAS DISTRIBUTION REQUIREMENTS
15 upper division credits total
MAY NOT be cross-listed with HU or SB.

CLAS HUMANITIES (6 credits, see over)

1.		3	3
2.		3	3

CLAS SOCIAL/BEHAVIORAL SCIENCES (6 credits, see over)

1.		3	3
2.		3	3

BRIDGE COURSE (3 credits, see over)
Might cross-list with major

1. BIO 311		3	3
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DISTRIBUTION TOTALS			
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ELECTIVES/MINOR (if applicable)

ELECTIVE/MINOR TOTALS			
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MAJOR REQUIREMENTS Minimum 44 hr; C grade minimum required in major courses; transfer courses subject to approval.

COURSE	√	HRS	UD
Gen Biol I BIO 187		4	no
Gen Biol II BIO 188		4	no
Biol & Society BIO 311		3	3
Rsch Colloq. I BIO 314		2	2
Ecology (BIO 320) OR Organic Evol (BIO 345)		3	3
Gen Genetics (BIO 340)		4	4
Rsch Colloq. II BIO 414		1	1
Research Credits: BIO 310, BIO 484, BIO 493, BIO 495, BIO 499		3	3

Electives (12 credit hr minimum)

INTERFACE REQUIREMENT
12 upper division hours with at least 3 hrs from each of the following three areas: Ethics, History or Philosophy of Science, & Contemporary Issues. May cross w/ CLAS.

			3
			3
			3
			3

Total Major Hours

PHYSICAL SCIENCES (11 credit hrs minimum)

Statistics			
Calculus (credit hrs already counted)			

TOTALS	Hrs	UD
MAJOR*		
RELATED AREAS *Students must have 12 upper division hours in the major at ASU Main		

Key: Hrs = credit hours, UD = Upper division courses (300 and above at ASU)

How to use this check sheet: List the course and prefix number that fulfills the corresponding requirement. In the appropriate column next to the course, write the number of semester credit hours. If the course is an upper division course (junior or senior level, numbered 300-499 at ASU) also mark the number of credit hours in the UD column next to the course. Courses numbered 500 or above require special permission, ask for the petition form in the CLAS office in Foundation 1120. When cross listing courses (i.e., using the same class to fulfill two requirements) take extra care not to double count the credit hours. Write the number of hours under one of the requirements, and cross out the appropriate column under the cross-listed requirement.

University General Studies Requirements: Please see the current catalog or schedule of classes for a listing of courses that qualify for General Studies credit (i.e., L, MA, CS, HU, SB, SQ/SG, C, G, H).

Note: University General Studies HU and SB courses are not the same as CLAS Humanities and Social and Behavioral Science credits. See below.

CLAS Graduation Requirements:

CLAS Humanities credits come only from the following departmental prefixes: **AFH, CSH, ENG** (Literature courses only), **HUM, PHI, HPS, REL, WSH**, Department of Languages & Literatures - any upper division literature or civilization course (e.g., SPA 325).

CLAS Social/ Behavioral Sciences credits come only from the following departmental prefixes: **AFS, ASB, CSS, ECN, GCU, HIS, POS, PGS, SOC, WST** (not WST 413, 464, 470).

CLAS Bridge courses (NOTE: New courses are periodically added; please see the "Bridge Course" flyer or look on the CLAS website for an updated list.) The Bridge course requirement cannot be double counted to fill other requirements for the university or college. Courses in **bold** *may* count toward the major, see an advisor to choose those courses.

ASB 240/REL 240 Intro to Southeast Asia
ASB 326 Human Impacts on Anc Environ
ASB 350 Anthropology and Art
ASB 353 Death and Dying, Cross-Cultur. Persp.
ASB 462 Medical Anthropology
ASM 248 Bioarchaeology of Cannibalism

BIO 311 Biology and Society
BIO 316 History of Biology
BIO 318/HPS 331 History of Medicine
BIO 319/PLB 320 Environ Science (non-major)
BIO 427 Fire

ENG 312 English in its Social Setting
ENG 494 Science & Literature Across the Cultural Divide
EPE 452 Exercise Psychology

GCU 344 Geography of Hispanic Americans
GPH 314 Global Change
GPH 405 Energy and Environment
GPH 422 Plant Geography

HST 460 History of Fire

HUM 420 Interpreting Latin America

MIC 394/PGS 394 ST: Disease & AIDS in America

PLB 422 Plant Geography

PSY 424 Genetic Psychology
PSY 425 Biological Bases of Behavior
PSY 426 Neuroanatomy
PSY 470 Psychopharmacology

REL 379 Religion, Nationalism, and Ethnic Conflict
REL 382 Religion, Magic, and Science
REL 390 Women and Religion
REL 480 Religion and Global Politics

SCA 250 Introduction to Scandinavian Culture

SHS 394: ST: Brain, Memory, and Language

SOC 334 Technology and Society
SOC 390 Social Statistics I
SOC 420 Sociology of Religion
SOC 451 Comparative Sociology
SOC 483 History of Social Thought

WST 394 Women and Religion