

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 <i>or</i> 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:			
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L: (e.g., PLB300)			
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NUMERACY

Mathematics (MA): Calculus

Comp. Sci./Statistics (CS):

HUMANITIES/FINE ARTS (HU courses)

1.			
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2.			
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SOCIAL/BEHAVIORAL (SB courses)

1.			
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2.			
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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		
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PROFICIENCY TOTALS		
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CLAS TOTALS		
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ELECTIVE/MINOR TOTALS		
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MAJOR TOTALS		
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GRAND TOTAL Minimum 120 hrs/45 hrs u.d.		
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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
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ENG 102		3	no
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FOREIGN LANGUAGE (202 level required)

101		4	no
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102		4	no
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201		4	no
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202		4	no
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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
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2.		3	3
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CLAS SOCIAL/BEHAVIORAL SCIENCES (6 credits, see over)

1.		3	3
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2.		3	3
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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)

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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
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Gen Biol I BIO 187		4	no
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Gen Biol II BIO 188		4	no
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Biol & Society BIO 311		3	3
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Rsch Colloq. I BIO 314		2	2
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Ecology (BIO 320) **OR**

Organic Evol (BIO 345)		3	3
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Gen Genetics (BIO 340)		4	4
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Rsch Colloq. II BIO 414		1	1
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Research Credits:
BIO 310, BIO 484, BIO 493, BIO 495, BIO 499

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Electives (12 credit hr minimum)

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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.

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Total Major Hours

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PHYSICAL SCIENCES (11 credit hrs minimum)

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Statistics			
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Calculus (credit hrs already counted)			
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TOTALS Hrs UD

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MAJOR*

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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 SS 111. 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 - FLA 150 or 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	PLB 422	Plant Geography
ASB 326	Human Impacts on Anc Environ	PSY 424	Genetic Psychology
ASB 350	Anthropology and Art	PSY 425	Biological Bases of Behavior
ASB 353	Death and Dying, Cross-Cultur. Persp.	PSY 426	Neuroanatomy
ASB 462	Medical Anthropology	PSY 470	Psychopharmacology
ASM 248	Bioarchaeology of Cannibalism		
BIO 311	Biology and Society	REL 379	Religion, Nationalism, and Ethnic Conflict
BIO 316	History of Biology	REL 382	Religion, Magic, and Science
BIO 318/HPS 331	History of Medicine	REL 390	Women and Religion
BIO 319/PLB 320	Environ Science (<u>non-major</u>)	REL 480	Religion and Global Politics
BIO 427	Fire	SCA 250	Introduction to Scandinavian Culture
ENG 312	English in its Social Setting	SHS 394:	ST: Brain, Memory, and Language
ENG 494	Science & Literature Across the Cultural Divide	SOC 334	Technology and Society
EPE 452	Exercise Psychology	SOC 390	Social Statistics I
GCU 344	Geography of Hispanic Americans	SOC 420	Sociology of Religion
GPH 314	Global Change	SOC 451	Comparative Sociology
GPH 405	Energy and Environment	SOC 483	History of Social Thought
GPH 422	Plant Geography	WST 394	Women and Religion
HST 460	History of Fire		
HUM 420	Interpreting Latin America		
MIC 394/PGS 394	ST: Disease & AIDS in America		