

## 2001-2002 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 193 Introductory Biology	4
	or	
	BIO 181 and 182 General Biology	(8)
II.	BIO 311 Biology and Society	3
	BIO 320 Fundamentals of Ecology <i>or</i> BIO 345 Organic Evolution	3
	BIO 340 General Genetics	4
	BIO 419 Research Colloquium	3
	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, please contact Rita Yordy at (480) 965-8927 or [rita.yordy@asu.edu](mailto:rita.yordy@asu.edu).  
Stop by the Biology and Society office in LSC-206, or visit our website at  
<http://lsvl.la.asu.edu/biosoc/>*

## 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	HPS 322 History of Science
BIO 318/HPS 331 History of Medicine	HPS 323 History of Science
HIS 309/HPS 325 History of Chinese Science	PHI 312 Theory of Knowledge
<i>or</i> HST 385 Chinese Science and Medicine	PHI 314 Philosophy of Science
HIS 369/HST 309 Exploration and Empire	PHI 394 Philosophy of Biology

### 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 394/HUM 371/HPS 311 Origins: Evolution and Creation
BIO 303 Radiation and Life	BIO 494/HIS 488/HST 460 Fire and Society
BIO 304 Radiation Medicine and Biology	PGS 306 Environmental Psychology
BIO 394/AFR 394/ASB 394 Genes, Race and Society	SOC 331 Environmental Sociology
BIO 394/HPS 332/HUM 372 Darwinian Revolution	SOC 334 Technology and Society
	SOC 394 Sociology of Science

<b>Biology &amp; Society Curriculum Check Sheet</b>										<b>2001-2002 Catalog Year</b>				Date:		Advisor:				
Name (Last, First MI):			ASU ID:			Degree:			Major:			Catalog Year:								
Second Baccalaureate Degree <input type="checkbox"/> Concurrent Degree <input type="checkbox"/> 30 hours at ASU main <input type="checkbox"/> 12 UD hours in the major at ASU main <input type="checkbox"/> 60 hours at ASU main to graduate with honors <input type="checkbox"/>										<b>Student Initials</b> _____										
<b>UNIVERSITY GENERAL STUDIES</b>					<b>COLLEGE GRADUATION REQUIREMENTS</b> You <b>CANNOT</b> cross-list (double count) courses from the College Graduation requirements with the University General Studies HU, SB, SG or SQ areas. The Bridge course cannot be double counted to fill any other requirements for the university or college but <i>might</i> count toward the major – <u>see an advisor</u> .					<b>MAJOR REQUIREMENTS</b> C minimum required in all upper division course work. Transfer courses subject to departmental approval. You can <b>ONLY</b> cross-list courses from the Interface Requirement with courses from the CLAS Graduation requirements. Minimum 44 hrs required.				<b>MAJOR REQUIREMENTS (continued)</b>						
AGEC or TGECC CERTIFICATION YES <input type="checkbox"/> NO <input type="checkbox"/>																				
Course Prefix & No.		C	NC	UD	DARS	Course Prefix & No.		C	NC	UD	DARS	Course Prefix & No.		Hrs	UD	DARS	<b>MATH PROFICIENCY</b>			
First-Year Composition (Requires C minimum)					Second Language (4 <sup>th</sup> semester Requires C minimum)					BIO 193 or BIO 181 & BIO 182		4	4/4	No						
										BIO 311 Biology and Society		3	3			MAT 251, MAT 210 or any calculus		3		
										BIO 320 Ecology or BIO 345 Evolution		3	3			<b>Electives (list certificate courses here)</b>				
					Humanities: 6 hours must be upper division					BIO 340 Gen Genetics		4	4							
Literacy and Critical Inquiry										BIO 419 Research Colloquium		3	3							
L										Research Hours (e.g., BIO 310, HON 493)		3	3							
L					3					Social and Behavioral Sciences: 6 hours must be upper div.		<b>INTERFACE REQUIREMENT</b> (12 upper division hours with at least 3 hrs from each of the following three areas: Ethics, History or Philosophy of Science, & Contemporary Issues <sup>3</sup> )				<b>MINOR (Cross-list<sup>1</sup>)</b> (CANNOT CROSS LIST WITH COURSES IN MAJOR) For Minor: 18 hrs. minimum <sup>2</sup> , 12 hrs. UD <sup>2</sup> , <input type="checkbox"/> 6 UD hrs. at ASU <input type="checkbox"/>				
Numeracy (CLAS majors require a C minimum in the MA area)												3								
MA												3								
CS (BIO 415 rec)										Bridge Course (See list on back, <i>might</i> count in major)										
Humanities and Fine Art HU (6 to 9 hours)																				
HU										Natural Sciences and Mathematics (6 to 8 hours)				<b>ELECTIVES</b> 11-15 hrs UD BIO/PLB or approved courses to bring total to 44 hours. See an advisor to discuss these courses.						
HU										Requirements met by courses in the major.										
HU					(3)															
Social and Behavioral Sciences (6 to 9 hours)					COLLEGE TOTALS															
SB										Electives										
SB					Sub-totals from back															
SB					(3)									<b>MAJOR TOTALS</b>						
Sciences (8 hours)														<b>RELATED FIELDS (Cross-list<sup>1</sup>)</b>						
SQ/SG – Requirement met by courses in the major.														TOTAL (120 hrs. req.)						
Awareness Areas (Cross-list <sup>1</sup> )														C						
<input type="checkbox"/> Cultural Diversity – C <input type="checkbox"/>														NC						
<input type="checkbox"/> Global - G <input type="checkbox"/>														45						
<input type="checkbox"/> Historical – H <input type="checkbox"/>														UD						
										2. Statistics (Bio 415 rec.)				4			<b>Column Total</b>			

**Key:** C = Courses completed, UD = Upper division courses (300 and above at ASU), DARS = Degree Audit Reporting System. (This column is for advisor's use only. / Check if the course is already articulated on the DARS report.)

**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. i.e. if you have completed the course, mark the number of hours under the C column. If it is a course that you have not earned a grade for yet, mark the number of semester credit hours under the NC column. If the course is an upper division course (Jr. or Sr. 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 graduation office in SS111. When cross listing courses (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 in SS 111 for an updated list.) The Bridge course requirement cannot be double counted to fill other requirements for the university or college. Some courses *may* count toward the major, see an advisor to choose those courses.

BIO 311	Biology and Society	HST 460	History of Fire	REL 390	Women and Religion
BIO 427	Fire	SCA 250	Introduction to Scandinavian Culture	REL 480	Religion and Global Politics
ENG 312	English in its Social Setting	PLB 320 / BIO 319	Environmental Science (non-majors)	SOC 334	Technology and Society
ENG 494	Science & Literature Across the Cultural Divide	PSY 424	Genetic Psychology	SOC 390	Social Statistics
EPE 452	Exercise Psychology	PSY 425	Biological Bases of Behavior	SOC 420	Sociology of Religion
GPH 314	Global Change	PSY 426	Neuroanatomy	SOC 451	Comparative Sociology
GCU 344	Geography of Hispanic Americans	PSY 470	Psychopharmacology	SOC 483	History of Social Thought
GPH 405	Energy and Environment	REL 379	Religion, Nationalism, and Ethnic Conflict		
GPH 422	Plant Geography	REL 382	Religion, Magic, and Science		