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Bachelor of Interdisciplinary Studies

Southern Utah University offers the following Bachelor of Interdisciplinary Studies degree. (Note: See Chapter 13, page 100 for a complete description of the Bachelor of Interdisciplinary Studies Degree requirements.)

Websites: <http://www.suu.edu/academics/bachelors.html>

I. Agricultural Science and Industries.

See the School of Applied Science and Technology, Department of Applied Science, Agriculture Division

Agricultural Science and Industry Bachelor of Interdisciplinary Studies	
Course Number and Title	Credits
General Education Core (See page 105)	
Core Course Requirements	17-18
Knowledge Areas Requirements (must take AGSC 1010)	19
Agriculture Core (29 hours)	
AGSC 1100 Principles of Animal Science	3
AGSC 1110 Crop Production	3
AGSC 1120 Crop Production Lab	1
AGSC 1990 Agriculture Leadership	1
AGSC 3020 Agribusiness Management	3
AGSC 3400 Feeding & Nutrition of Horses & Livestock	3
AGSC 3410 Feeding and Nutrition Lab	1
AGSC 3560 Soil Science	3
AGSC 3570 Soil Science Lab	1
AGSC 4990 Agriculture Seminar	1
ECON 2010 Microeconomics	3
ACCT 2010 Accounting Principles	3
ISA 2300 Written Business Communications or	3
COMM 4240 Technical Report Writing	
Select one of the following emphases:	
Agribusiness Emphasis (18 hours)	
ACCT 2020 Managerial Accounting	3
MKTG 3010 Marketing Principles	3
ACCT 2360 Business Law	3
MGMT 3180 Management Organization	3
3000 – LEVEL *Two Courses Plant or Animal Mgt (AGSC Prefix)	6
Animal Science and Industries Emphasis (17 hours)	
AGSC 3150 Genetics of Livestock & Horse Improvement	3
AGSC 3500 Applied Reproduction in Livestock and Horses	3
AGSC 3510 Reproduction Lab	1
BIOL 3060 Genetics	3

BIOL 3070 Genetics Lab	1
3000 – LEVEL *Animal Management (AGSC Prefix)	6
*Two courses	
Plant Science and Industries Emphasis (18 hours)	
AGSC 3030 Forages	3
AGSC 3040 Forages Lab	1
AGSC 3230 Pests and Pest Management	3
AGSC 3240 Pest Mgt. Lab	1
AGSC 3700 Principles of Irrigation	3
AGSC 3710 Irrigation Lab	1
AGSC 3000 LEVEL – Plant Science (AGSC prefix)	6
*Two courses	
*Up to 3 credit hours of AGSC 3600, Directed Studies, may be substituted.	
General Agriculture Emphasis (17 hours)	
In addition to the core, students will select a minimum of 17 semester credits to meet a specific interest or career goal. That goal may not be satisfied by emphasis areas A-C above. Examples might include agriculture journalism, natural resources, GIS/GPS, international agriculture. The program must be approved by an advisor, department chair, and the dean.	
(Note: Set apart from General Agriculture Emphasis) Free Electives	37-38
Total Credits, B.I.S. degree	120

II. Geographic Information Systems

See College of Science, Department of Physical Science, GIS Division.

Geographic Information Systems Bachelor of Interdisciplinary Studies	
Course Number and Title	Credits
General Education Core (See page 105)	
Core Course Requirements (must take MATH 1040 and ISA 1050)	18
Knowledge Areas Requirements (For Natural Resource Emphasis must take BIOL 1050/1060)	19
Core Support Courses (16 hours)	
CS 1050 Introduction to Programming	3
MATH 1050 College Algebra	4
MATH 1060 Trigonometry	3
ISA 2100 Database	3
IS 3600 Advance Database/Systems Implementation w/DBMS	3
GIS Core Curriculum (33 hours)	
GEOG 2900 GPS Theory, Technique and Methods	2
GEOG 3500 Introduction to Cartography	3

GEOG 3510 Introduction to Cartography Lab	1
GEOG 3550 Principles of GIS	3
GEOG 3560 Principles of GIS Lab	2
GEOG 3993 GIS Undergraduate Research	3
GEOG 4150 Advance GIS Analysis Methods Lab	3
GEOG 4500 GIS Research Project (capstone)	3
GEOG 4893 GIS Internship	3
GEOG 4920 GIS Workshop	3
MATH 1210 Calculus	4
COMM 4240 Technical Writing	3
Select 1 of the following 7 emphases: Geography Emphasis (34 hours)	
GEOG 1100 Physical Geography	3
GEOG 1110 Physical Geography Lab	1
GEOG 1450 Human Geography	3
GEOG 3220 Weather and Climate	3
GEOG 3230 Weather and Climate Lab	1
GEOG 3350 Geomorphology	2
GEOG 3360 Geomorphology Lab	1
GEOG 3400 Environmental Geography	3
GEOG 3620 Geography of North America	3
Electives	14
Programming Emphasis (34 hours)	
CS 1050 Introduction to Programming	3
CS 1100 Object Oriented Programming	3
CS 1110 Data Structures	3
ISA 2000 Web Development	3
CS 2800 Web Programming	3
CS 3150 C and C++ Programming	3
CS 3800 Programming Language Concepts or another upper division computer science course	3
Electives	9
Electives (upper division)	4
Database/Information Systems Emphasis (34 hours)	
ISA 2000 Web Development	3
ISA 2100 Database	3
ISA 2600 Telecommunication and Networking	3
EET 2750 Computer Hardware (A+ Cert)	3
IS 3000 Fundamentals for Information Systems	3
IS 4200 Systems Analysis & Design	3
Electives	12
Electives (upper division)	4
Natural Resource Emphasis (34 hours)	
AGSC 1010 Agriculture in Society	3
NR 1010 Introduction to Natural Resource	3
BIOL 1030 General Biology I	3
BIOL 1040 General Biology I Lab	1
BIOL 2000 Natural History	3
BIOL 3030 Ecology	3
BIOL 3040 Ecology Lab	1

BIOL 3550 Plant Taxonomy*	3
RANG 3600 Range Management	3
RANG 3610 Range Management Lab	1
BIOL 3650 Conservation Biology	3
AGSC 3560 Soils	3
AGSC 3570 Soils Lab	1
Electives	3
<i>*(or choose one of the following: BIOL 3430/40; 3470/80 and required prerequisite, BIOL 3060; 3490/3500 and required prerequisite, BIOL 3060)</i>	
Mathematics and Physics Emphasis (34 hours)	
MATH 1220 Calculus II	4
MATH 2210 Calculus III	4
MATH 3210 Linear Algebra with Applications	3
PHSC 2210 Physics for Scientists and Engineers I	4
PHSC 2220 Physics for Scientists and Engineers I Lab	1
PHSC 2230 Physics for Scientists and Engineers I Recitation	1
PHSC 2240 Physics for Scientists and Engineers II	4
PHSC 2250 Physics for Scientists and Engineers II Lab	1
PHSC 2260 Physics for Scientists and Engineers II Recitation	1
Electives	4
Electives (upper division)	7
Computer Aided Design Emphasis (34 hours)	
CCET 1610 Technical Graphics I	3
CCET 1640 Computer Aided Design	3
EET 2750 Computer Hardware (A+ Cert)	3
ENGR 2810 Plane Surveying	2
ENGR 2820 Plane Surveying Lab	1
CCET 3630 Fundamentals of CATIA	3
CCET 3670 Civil Design	3
Electives	9
Electives (upper division)	4
General Geography and GIS emphasis (34 hours)	
The General Geography and GIS Emphasis can be designed from the emphases listed above. To apply for this emphasis, a student must have prior approval from a GIS advisor. In order to qualify twenty (20) upper division credit hours must be completed AFTER written approval is obtained from your advisor	
Approved Courses	15
Approved Upper Division Courses	10
Electives	9
Suggested electives in any emphasis	
GEOL 1210 Historical Geology	3
GEOL 1220 Historical Geology Lab	1
NR 3000 Management of Natural Resources	3
GEOL 3010 Environmental Geology	3
GEOL 3020 Environmental Geology Lab	1
AGSC 3020 Agribusiness Management	3
GEOL 1110 Physical Geology	3

Other Programs of Study

GEOL 1120 Physical Geology Lab	1
HSS 1200 Introduction to Environmental Studies	3
(1) All courses from the above emphases can be used for elective courses. Additional electives beyond the above list and emphases can be used after consulting with a GIS advisor. (2) A grade of "C" (2.0 or above) or better must be earned in each course required for the major.	
Total Credits, B.I.S. degree	120

III. Natural Resources and Environmental Studies

See the School of Applied Science and Technology, Department of Applied Science; the College of Science, Department of Physical Science or Biology; and the College of Humanities and Social Sciences, Department of Social Science.

Faculty

Interested students need to select a specific faculty member as an advisor for the BIS/NRES degree from the list below:

Agriculture: Dan Dail, Dean Winward;

Biology: Jim Bowns, Kate Grandison, Ron Martin, John Taylor;

Chemistry: Kim Weaver, Bruce Howard;

English: James Aton, Patricia Matteson;

Geology: Robert Eves;

Geography/GIS: Paul Larson, Dave Maxwell;

Psychology: Britton Mace, Luciane Berg;

Sociology: Kenneth Laundra

Mission

To provide Southern Utah University students with the unique set of interdisciplinary skills needed to excel in the diverse array of careers involving natural resources and environmental studies.

Degree Overview – BIS/NRES

All students must complete the core requirements (42 credits), required courses from one of two sub-tracks: social science (24 credits), and natural science (25 credits), and a senior capstone service project. The core is designed to provide the foundations in natural, social, and physical sciences common to all natural resource and environmental studies disciplines. The natural science track is designed for students interested in natural resource management, stewardship, and research in the natural sciences. The social science track is designed for students interested in public policy, advocacy, interpretation, or research in the social sciences. Within each track there are also a set of courses that are recommended to fulfill university general education requirements. To provide flexibility, students may choose from elective courses in either track to round out their degree. Additionally, all students will be required to perform a senior service learning project in Inter-disciplinary teams with students from both the social science track and natural science track.

Natural Resources and Environmental Studies Bachelor of Interdisciplinary Studies	
Course Number and Title	Credits
General Education Core	
Core Course Requirements (must take POSC 1100)	17-18
Knowledge Areas Requirements (must take HSS 1200, COMM 1310, NR 1010, CHEM 1210/1230)	19
Natural Science Track – Advisable for General Education	
MATH 1050 College Algebra	
GEOG 1100 Physical Geography	
MATH 1210 Calculus	

BIOL 2000 Natural History	
BIOL 1050/1060 General Biology	
Social Science Track – Advisable for General Education	
ENGL 2010 Writing on Environment	
GEOG 1100 Physical Geography	
PSY 2100 Psychology of Gender	
SOC 4710 Gender Studies	
Required Core Courses (19 hours)	
BIOL 3650 Conservation Biology	3
GEOG 3550/3560 Principles of GIS	5
GEOL 1110/1120 Physical Geology	4
PSY 3500 Environmental Psychology	3
BIOL 3030/3040 General Ecology	4
Select one from the following (3-4 hours):	
PSY 3010 Statistics in Psychology	3
SOC 4810 Social Statistics	3
MATH 1040 Intro to Statistics	4
Interdisciplinary team service project (2 hours)	
See individual advisor. Students in social science track and students in natural science track must complete a team capstone service project in their senior year.	2
Complete either the Natural Science or Social Science track.	
Natural Science Track (21 hours)	
Required Courses (14 hours)	
GEOL 1210/1220 Historical Geology	4
BIOL 3110 Evolution	3
AGSC 3560 Soils	4
CHEM 3700 Environmental Chemistry	3
Choose one class from below (4 hours)	
BIOL 3390/3400 Mammalogy/Lab	4
BIOL 3550 Plant Taxonomy	3
BIOL 3470/3480 Herpetology/Lab	4
BIOL 3490/3500 Ornithology/Lab	4
Choose one class from below (3-4 hours)	
BIOL 3430/3440 Entomology/Lab	4
BIOL 3570 Agrostology (Native Grass)	3
Social Science Track (24 hours)	
Required Courses (18 credits)	
SOC 4620 Environmental Sociology	3
POSC 3300 State and Local Government (Formerly POSC 1110)	3
COMM 4501 Topics – Conflict Management	3
BIOL 4070 History and Literature of Biology	3
GEOG 1450 Human Geography	3
ENGL 4610 American Nature Writing	3
Choose one class from below (3 hours)	
HIST 3810 Westward Movement	3
HIST 3870 History of Utah	3
HIST 3880 History of the Southwest	3

Choose one practicum class from below (3 hours)	
SOC 4800 Sociology	3
PSY 3800 Psychology	3
GEOG 4893 Geography	3
HONR 3800 Honors	3
Suggested Elective Courses for either track	
BIOL 3060 Genetics/BIOL 3070 Lab	4
BIOL 2050 Utah Flora	3
BIOL 2110 Microbiology	4
BIOL 3510 Plant Diversity and Anatomy	4
BIOL 4410 Animal Behavior	3
CHEM 2310 Organic Chemistry	4
CHEM 4110 Biochemistry	3
GEOG 2900 GPS Theory Practice	2
GEOG 4150 Advanced GIS	3
GEOG 3220/3230 Weather and Climate	4
GEOL 3110/3120 Paleontology	4
GEOL 3170/3180 Oceanography	4
GEOL 3210/3220 Sedimentology/Stratigraphy	4
GEOL 3010/3020 Environmental Geology	4
RANG 3600/3610 Range Management	4
GEOG 3400 Environmental Geography	3
SOC 2000 Computer Applications in Sociology	3
SOC 4500 Global Issues in Sociology	3
SOC 4700 Special Topics/Native Americans	3
COMM 4800 Individual Projects	3
POSC 3410 Public Administration	3
PSY 3410 Applied Research Design	3
PSY 3820 Human Relations in Group Dynamics	3
PSY 4500 Special Topics	3
PSY 4831 Readings and Conferences	3
ENGL 4610 Native American Literature	3
ENGL 2060 Creative Writing	3
Free Electives	36-39
Total Credits, B.I.S. degree	120