

PHOTOGRAPHY

See course descriptions under Technology Education: Photography on p. 139.

GRAPHIC ARTS AND DIGITAL MEDIA

See course descriptions under Technology Education: Digital Multimedia on p. 137.

BEHAVIORAL SCIENCES

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Academic Programs	Credits
BS: Behavioral Sciences	60
Anthropology	
Public Health	
Student Development	
Substance Abuse	
BS: Family Studies	60
BS: General Studies	60
Cross-Cultural Relations	
Human Organization and Development	
BS: Psychology	60
General Program	
Health Psychology	
Pre-professional Program	
BS: Sociology	60
Development	
Deviant Behavior	
Sociology of the Family	
Minor in Anthropology	30
Minor in Behavior Sciences	30
Minor in Behavior Sciences (with teacher certification)	36
Minor in Family Studies	30
Minor in Geography	30
Minor in Psychology	30
Minor in Sociology	30
MSA	48
• Community Development	
• International Development	

The Department of Behavioral Sciences is organized as a consortium where faculty share expertise and research endeavors in related disciplines. The behavioral sciences are concerned with the study of how human beings think and behave as individuals, and in sociocultural and ecological systems.

DEPARTMENT AIMS

This department aims (1) to introduce students to the salient discoveries and procedures accumulated from research in behavioral sciences disciplines and (2) to empower students to utilize this knowledge in furthering the mission of Seventh-day Adventists: restoring men and women to the image of their Maker. The department fulfills these aims by three principal means: (1) instruction by Christian professors; (2) coursework which develops a strong liberal-arts foundation and interdisciplinary preparation

leading to many different fields of Christian service; and (3) extracurricular participation by students in voluntary religious activities, community service, and research.

TEACHER CERTIFICATION

Students seeking teacher certification on the secondary level may enroll in the BS in Behavioral Sciences (Student Development Emphasis), the Behavioral Sciences minor in teacher certification, or the Sociology minor. Elementary certification is available only for the Behavioral Sciences minor in teacher certification. See the School of Education for full details.

MINORS, COGNATES, AND ELECTIVES

Majors should take advantage of the variety of undergraduate courses available at Andrews to acquire a broad education. Combining behavioral science courses with other areas such as business, health, and language provides avenues for reaching individual professional goals.

Students should counsel with advisers in selecting cognates and electives. Volunteer work is most beneficial and majors are urged to seek opportunities through the Community Service Assistantship Program (CSAP). Those planning to pursue graduate studies should seek opportunities in research.

RESEARCH SEQUENCE

It is strongly recommended that all BS majors take the Research Methods Sequence during their junior year.

Undergraduate Programs

BS: Behavioral Sciences—60

Core Courses—30-32

ANTH124 or 336, 200; PSYC101, 210, 450; SOCI119, 306, 427; PSYC469 OR SOCI474.
A minimum of 36 credits must be selected from courses numbered 300 or above.

Cognate Requirement

STAT285.

The remaining credits are to be selected from at least two of the areas offered in the department or as specified in an area of emphasis below. Majors are required to take the major field test in either psychology or sociology. Those with specific vocational goals may wish to consider one of the following areas of emphasis:

Anthropology Emphasis

Core Courses—30-32

Emphasis Courses

ANTH205, 478, 496 (6 credits); ENGL440; FMST350; SOCI425.

Required cognates

BIOL111,112 or 155, 156, 157; ECON308; GEOG125; HIST400; STAT285. For students planning graduate-level training in anthropology, foreign language is highly recommended.

Public Health Emphasis

Core Courses—30-32

Emphasis Courses

BHSC440 Topics: Human Disease, Community Health, Health Behavior Change, Substance Abuse Prevention; PSYC319, 354, 420, 460, 471; SOCI415, 420, 428.

Required cognates

BIOL111,112,260 or BIOL155,156,157;
CHEM111,112 or CHEM121,122,123;
STAT285; FDNT230; PETH374.

Student Development Emphasis**Core Courses—30-32****Emphasis Courses**

PSYC204; 251 or 252; 420, 466; SOCI120,
345, 480 (1 credit).

Required cognates

EDPC430; EDTE389; STAT285. *Students desiring secondary-teaching certification must also take EDCI486; EDPC302; EDTE215, 354, 417, 424, 459S, 465.*

Substance Abuse Emphasis**Core Courses—30-32****Emphasis Courses**

PSYC449, 455, 458, 471, 486; 488 or
SOWK320; SOCI415; SOWK325.

Required cognates

BHSC440 Topics: Etiology and Disease Prevention; CHEM111,112; FDNT230; STAT285. *Course work in Spanish highly recommended.*

BS: Family Studies—60**Core Courses**

BHSC440 (5 credits); FDNT230; FMST115,
310, 454, 456, 470; EDRE438; FNCE 206;
PSYC251, 252, 420.

Electives chosen in consultation with program adviser. *Majors are required to take FDNT230 for the science breadth course.*

BS: General Studies—60**Core Courses**

ANTH124, 200; FMST310; PSYC101, 251 or
252, 450, 469 or SOCI474; SOCI119, 427,
476 (1 credit). *A minimum of 36 credits must be selected from courses numbered 300 or above.*

Required Cognates

STAT285.

The remaining credits must be selected from one of the following emphases:

Cross-Cultural Relations Emphasis

In addition to the core courses listed under the BS in General Studies, the following courses (24 credits) should be taken: BHSC220; COMM436; FMST350; GEOG125; SOCI425, 430.

Human Organization and Development Emphasis

In addition to the core courses listed under the BS: General Studies, 24 credits should be selected from the following courses: BHSC440 Topics: Industrial Psychology; ECON225; FMST460; PSYC319; SOCI360, 375, 470.

BS: Psychology

Two options are available—the General Program and the Pre-Professional Program. The Pre-Professional Program is for students planning a graduate degree. Whichever program students choose, they should consult their adviser in regard to their psychology classes, general or elective classes, and an elective minor. Classes should be chosen with occupational goals in mind. Students planning on graduate school should choose classes

in an area of specialization. All majors are required to take the major field test in psychology before graduation.

Pre-Professional Program—60**Core courses**

PSYC101, 354, 427, 428, 429, 469; SOCI306; PSYC476 (2 credits) or HONS497 (2 credits). One course from PSYC486; BHSC440 Topic: Industrial/ Organizational Psychology. A minimum of 6 courses from Group A & B. A minimum of two courses from Group A: PSYC364, 449, 465; ZOOL475. A minimum of two courses from Group B: PSYC251 or 252, 450, 454, 460. A minimum of 36 credits must be selected from courses numbered 300 or above. Electives can be chosen from any PSYC courses.

Required cognates

18-23 credits from BIOL111, 112 or 155, 156, 157; SOCI119 or ANTH200; STAT285. *A practicum and a reading knowledge of a foreign language are strongly recommended, particularly for students who plan to take graduate study in psychology.*

General Program—60**Core courses**

PSYC101, 427, 429, 469, 480 (2 credits); SOCI306. One course from PSYC486; BHSC440 Topic: Industrial/ Organizational Psychology. A minimum of 5 courses from Group A & B. Two courses from Group A: PSYC210, 364, 449; 465, 471; ZOOL475. Two courses from Group B: PSYC251 or 252, 450, 454, 460. *A minimum of 36 credits must be selected from courses numbered 300 or above.* Electives can be chosen from any course with a PSYC acronym.

Required cognates

BIOL111, 112 or 155, 156, 157; SOCI119 OR ANTH200, STAT285. *A practicum and a reading knowledge of a foreign language are strongly recommended, particularly for students who plan to take graduate study in psychology.*

Health Psychology Emphasis—60**Core courses**

ANTH200; BHSC440 Topics: Human Disease (4 credits); PSYC101, 210, PSYC319 or SOCI420; PSYC354, 427, 428, 429, 450, 460; PSYC465 or 420; PSYC471; SOCI119, 306.

Electives

BHSC440 Topics: Health Behavior Change (3 credits), Community Health (4 credits); PSYC455; SOCI415; FDNT340.

Required cognates

BIOL111, 112, 260 or BIOL 155, 156, 157; CHEM121, 122, 123 or CHEM111, 112; FDNT230; HLED170, 420; PETH374; STAT285.

BS: Sociology—60**Core Courses—30**

BHSC220; PSYC450; SOCI119, 306, 345, 415, 427, 470, 474.

Required cognates

ANTH200; ECON225, INSY110; PSYC101, 354. *A reading knowledge of a foreign language is strongly recommended, particularly for students who plan to take graduate study in sociology. Majors are required to take the major field test in sociology. Those students*

with specific vocational goals may wish to consider one of the following areas of emphasis:

Development Emphasis**Core Courses—30****Emphasis Courses**

SOCI360, 410, 420, 480 (4 credits); SOCI375; PLSC488. *A minor in business administration and competency in a foreign language at the intermediate level are highly recommended. Students planning to apply to the MSA degree program must also take ACCT111, 112 and PSYC427, 428/ SOCI427, 428.*

Deviant Behavior Emphasis**Core Courses—30****Emphasis Courses**

SOCI315, 480 (2 credits)*; FMST454; PSYC420, 458, 460. *A knowledge of Spanish at the intermediate level is highly recommended.*

Sociology of the Family Emphasis**Core Courses—30****Emphasis Courses**

SOCI120, 430, 460, 480 (5 credits)*; FMST350, 454.

*SOCI476 may be used to substitute for some in SOCI480 credits. Consult department chair.

MINORS

All minors require that students earn at least 20 credits in courses numbered 300 and above.

Minor in Anthropology—30

ANTH124 and 200. Students interested in emphasizing archaeology should select ANTH124, 205, 336, 496. Recommended cognates for students interested in archaeology include ARCH260; BOT468 or ZOOL458; CMME476 or PHTO115; DGME125; RELT210.

Minor in Behavioral Sciences—30

Selected from at least three of the following five areas: anthropology, family studies, geography, psychology or sociology. *Students choosing this minor should consult with the chair of the department.*

Minor in Behavioral Sciences—36**Teacher certification emphasis**

PSYC101, 364, 450; SOCI119, 427; one of PSYC251,252; any three from BHSC220, PSYC454, 460, 465, 469, SOCI345, 425.

Minor in Family Studies—30

FDNT230, FMST115, 310, 456, 460. Additional credits chosen in consultation with program adviser.

Minor in Geography—30

GEOG110, 125 (repeated 3 times), 240, 260. BIOL487 or PHYS110 may be taken as an elective.

Minor in Psychology—30

PSYC101, at least one of PSYC450, 454, 460; at least one of 210, 364, 465, 471; at least one of PSYC427, 429.

Minor in Sociology—30

SOCI119; one of BHSC220; SOCI120, 425 or 430; one of SOCI315, 345 or 415; one of SOCI360, 420 or 470; SOCI474.

Graduate Programs

MSA in Community Development

In order to be admitted to regular standing, students must have completed the following prerequisites:

1. A bachelors degree or its equivalent
2. Undergraduate course work (or equivalents) including ACCT111, 112, PSYC 450; SOCI 427; and SOCI 470.
3. Computer literacy skills equivalent to at least the level of mastery needed to pass the general education computer skills course such as INSY 107,108.
4. Graduate Record Exam (GRE) or the Graduate Management Admission Test (GMAT).

MSA DEGREE REQUIREMENTS

1. A cumulative GPA of at least 3.00 (4.00 system) in a curriculum of 48 credits selected in consultation with the adviser.
2. **Community Development Core—24**
ANTH515, BHSC590, CHMN540, IDSC698, SOCI530, 535, 545, 580, 585.
3. **School of Business Core—12**
ACCT 550, MKTG 540, BSAD530. If students do not have the prerequisites for these required business courses, additional graduate classes may be needed, selected from ACCT 500, BSAD 500, or ECON 500 survey courses. No more than 20 graduate credits may be taken from the School of Business for this degree.
4. **Electives—up to 12**
Select from the following: ANTH600, 530; BHSC440; BSAD515, 690; CHMN540; COMM436; JOUR454; SOCI415, 420, 460; FMST 454, 460. Some of these courses are only taught alternate years.
5. **Research Project or Grant Proposal**
Students must complete satisfactorily a research project or grant proposal which demonstrates the ability to apply knowledge acquired in this program to the chosen field of service. This is done normally in conjunction with the main graduate seminar (SOCI585).
6. **Comprehensive Examination**
Students must pass a comprehensive examination over the material covered in the master's program, both in business and Community Development.

MSA: International Development

This interdisciplinary program is jointly supported by Andrews University and the Adventist Development and Relief Agency (ADRA). Further information can be found on p. 34.

Courses

See inside back cover for symbol code.

ANTHROPOLOGY**ANTH124****Introduction to Anthropology**

An introduction to the anthropological perspective. Topics include cognitive and social aspects of language, biology and the study of culture, origins of culture, archaeology and cultural beginnings, introduction to the study of cultural variation, and models of culture. Normally offered even years.

ANTH200**Cultural Anthropology**

The study of culture and cultural variation. The contemporary beliefs, values, institutions, and material way of life of people in North America are contrasted with those of people living in other regions of the world today and in the past.

ANTH205**Introduction to Archaeology**

An introduction to some of the discoveries made by archaeologists and to some of the methods whereby their discoveries are made. Advances in archaeological method and theory over the past one hundred years are explained and illustrated. Normally offered odd years.

ANTH336**Social Anthropology**

Cultural myths and social realities in America are contrasted with those of other nations and societies. Symbolic and materialist approaches to explaining the origin, maintenance, and change of social structures are examined and critiqued. Normally offered even years.

ANTH465**Research Methods: Ethnography**

The role of ethnography in behavioral science research. Classic in ethnography. Pre-participant observation. Interviewing informants. Collecting life histories. Using personal documentation. Content analysis. Writing ethno-graphic reports. Prerequisite: PSYC427.

ANTH478**Archaeological and Ethnographical Perspectives on the Middle East**

History of exploration. Beginnings of sedentary food production and pastoralism. Rise of Egyptian and Mesopotamian civilization. Israel, Ammon, Moab, and Edom. Rome and Christianity. History of the Arabs and Islamic civilization. Ethnographical perspectives on women, families, tribes, and states. Islam and the modern world. Offered as credit on Summer Tours.

ANTH496**Supervised Fieldwork in Anthropology or Archaeology**

Students may apply to participate as trainees on research projects sponsored either by the Department of Behavioral Sciences or the Institute of Archaeology.

ANTH500**Topics in Anthropology**

Topics in cross-cultural anthropology. Repeatable as topics vary.

ANTH515**Urban Anthropology**

An introduction to ethnographic approaches to understanding urban populations and problems. Special emphasis is placed on examining the uses of quantitative methods in the design of urban community initiatives.

ANTH530**Global Food Systems**

Causes of food insecurity, hunger, and famine. How industrial food systems work. The green revolution and its consequences. How indigenous food systems work. The role of women in indigenous food systems. Food wars. Beneficiary participation and partnering as strategies for achieving sustainable food security solutions.

ANTH600**Seminar in Cultural Anthropology**

Examines the roots and meanings of the concept of culture. Method and theories developed by anthropologists for studying contemporary and ancient cultures. Archaeology, ethnography, and ethnology. Prerequisites: ANTH124 or 200 or permission of instructor.

BEHAVIORAL SCIENCE

BHSC100**Philosophy of Service**

Provides a theoretical and practical basis for understanding and meeting needs of communities and individuals. Course materials include works from Christian and secular sources. Students develop an individualized practical plan to understand and meet needs. Does not apply to a major or minor.

BHSC220**Contemporary Social Issues**

Issues may include drug abuse, the family, crime/violence and punishment, AIDS, poverty, and health care. Integrates foundational social science with a Christian perspective to help students understand the origins of current societal issues and strategies for addressing those issues.

BHSC235**Culture, Place, and Interdependence**

Integrates concepts from anthropology, geography, and other sciences, helping students understand how human culture and natural habitat create regional, ethnic, religious, and other social groups. Examines origins of group conflict and considers avenues of responsible action for resolution.

BHSC235 **V (4.5 qtr; 3 sem)**
Culture, Place, and Interdependence
 Distance education—see content above.

BHSC300 (2)
Philosophy of Service Fieldwork
 Provides an opportunity for the practical application of the theories, principles, and concepts learned in BHSC100S. Prerequisite: BHSC100S or permission of Service Learning Coordinator. Does not apply to a major or minor.

BHSC438 (1-2)
Workshop:
 Provides an opportunity to study in a focused area within the behavioral sciences.

BHSC440 g (1-5)
Topics in _____
 Examines emerging issues in the behavioral sciences. Repeatable in different areas.

BHSC495 (1-4)
Independent Study/Readings/ Research/ Project in Behavioral Sciences
 Set up on a contract basis with no more than 4 credits per quarter. Students may repeat or take any combination of departmental independent study courses for up to 8 credits. Consult staff before registering.

BHSC590
Internship
 To be arranged in cooperation with the student's adviser.

BHSC648 (1-2)
Workshop:
 Provides an opportunity to study in a focused area within the behavioral sciences.

BHSC690 (1-4)
Independent Study/Readings/Research/ Project in Behavioral Sciences

FAMILY STUDIES

FMST115 (2)
Introduction to Family Studies
 Study of the conceptual framework for the discipline and exploration of contemporary issues and trends in society as related to families.

FMST310 (4)
Parent-Child Relationships
 Study of the concepts, challenges, and changes in the parent/child relationship including contemporary strategies, parenting in diverse family types, and changing parenting roles throughout the life cycle.

FMST350 (4)
Family Cultural Perspectives
 Study of the family as a social institution, its biological and cultural foundations, and its historic development and changing structure and function. Cross-cultural uniqueness is examined.

FMST454 g (4)
Understanding Abuse in Family and Society
 Study of factors contributing to abuse in the family, with emphasis on prevention of domestic violence.

FMST456 Alt g (4)

Marriage and the Family
 Study of the family and the marriage relationship from a multicultural perspective, focusing on diversity and strengths of families, developing and maintaining satisfying intimate relationships, trends in family structure, family dynamics and the conceptual frameworks from which researchers, theoreticians, and clinicians look at families.

FMST460 g (4)
Management and Decision Making in the Family

Principles of sound management of resources like time, money, and energy as they relate to individuals and groups. Emphasis on the family.

FMST470 g (1-12)
Practicum
 Supervised experience in observing, planning, directing, and/or assisting families in various home or organizational environments. Repeatable to 12 credits.

GEOGRAPHY

GEOG110 (4)
Survey of Geography
 A survey of major geographic perspectives: physical, human, technical, and regional. Applies toward General Education social science requirements.

GEOG125 (4)
Introduction to Regional Geography: _____
 Regional study of human beings in their spatial environment in selected countries of major regions of the world. Regions selected for study vary from quarter to quarter. Direct inquiries to program coordinator. Repeatable with different regions.

GEOG240 \$ (4)
Physical Geography
 The physical environment in which human societies exist; the earth's crust, its water systems, land systems, and climatic features.

GEOG245 (4)
Introduction to Meteorology and Climatology
 Emphasis on atmospheric processes and regional distribution and classification of the world's climate.

GEOG260 (4)
Cultural Geography
 The geographic viewpoint of the human occupancy of the earth in relation to the environment; including aspects of population, settlement, language, religion, and economy; a generalized survey of major world cultural areas to integrate course elements.

GEOG260 V (4.5 qtr; 3 sem)
Cultural Geography
 Distance education—see content above.

GEOG400 g (4)
Political Geography
 A study of geographic and cultural factors in relation to the development of the modern political systems.

GEOG455 (4)
Environmental Disasters
 An integrated study of the causes and geography of natural disasters and those caused by human

action. Understanding of extreme event prediction, early warning, and disaster mitigation. Organizations involved in disaster response.

GEOG460 g (1-4)
Topics in _____
 Study of selected topics in Physical, Human, or Regional Geography. Topic and credit to be announced in advance. Repeatable with different topics for up to 12 credits (up to 4 credits for graduate students).

GEOG475 g (4)
Regional Geography: _____
 Regional study of physical, economic, and cultural characteristics of major regions of the world. Areas selected for analysis vary from quarter to quarter. Direct inquiries to the instructor. Repeatable with different regions.

GEOG485 g (1-8)
Geography Field Experience
 Observation and evaluation of geographical phenomena in the U.S. or foreign countries. May be based upon individual research, organized tours, or expeditions. A formal report is expected. (Undergraduate: 1-12 credits; Graduate: 2-6 credits)

GEOG495 g (1-6)
Independent Study/Readings/Research
 Independent work on a specified topic under the guidance of department adviser. Repeatable to 12 credits with the consent of the program coordinator.

PSYCHOLOGY

PSYC101 (4)
Introduction to Psychology
 Principles of psychology including the study of growth, perception, learning, thinking, motivation, emotion, personality, and mental health.

PSYC101-50 (4)
Honors Introduction to Psychology

PSYC101 V (4.5 qtr; 3 sem)
Introduction to Psychology
 Distance education—see content above.

PSYC204 (4)
Theories of Personal and Social Adjustment
 Application of psychological principles of behavior as they influence optimal personal and social adjustment, with an emphasis on group dynamics.

PSYC210 \$ (4)
Introduction to Health Psychology
 Study of causes for the rise of health psychology; interrelationships between psychology and health-related disciplines; models of disease and health care; interrelationships between stressful life events, social support, and wellness; illness behavior; psychology of addictive behavior; and behavioral health. Prerequisite: PSYC101.

PSYC251 (4)
Psychology of Early Development
 Current psychological theories relating to environmental influences during prenatal, infant, and childhood years. Prerequisite: PSYC101.

PSYC252 (4)
The Psychology of Adolescence, Youth, and Aging

Current psychological theories relating to psychological development, maturity, and decline as evidenced during the adolescent, youth, middle age, and retirement years. Prerequisite: PSYC101.

PSYC252 **V (6 qtr; 4 sem)**
The Psychology of Adolescence, Youth, and Aging
 Distance education—see content above.

PSYC319 **(4)**
Stress Management
 An introduction to stress along with signs and symptoms of stress and identification of stressors in a person's life. Students learn how to increase stress tolerance and implement change.

PSYC354 **(4)**
Statistical Reasoning
 Statistical analysis of data, including parametric and nonparametric techniques, practice in analysis of professional reports and/or journal articles are done with an emphasis on the relationship of statistical thinking, reasoning, and inference to scientific investigation including hypothesis testing. Prerequisite: STAT285 or permission of instructor.

PSYC364 **(4)**
Learning and Behavior
 A study of theories of learning which evaluates connections between learning and behavioral processes within and between humans and animals. Prerequisite: PSYC101.

PSYC364 **V (4.5 qtr; 3 sem)**
Learning and Behavior
 Distance education—see content above.

PSYC420 **g (4)**
Human Sexuality
 A study of the multiple aspects of sexuality within a framework of Christian values. Prerequisite: PSYC101.

PSYC427 **\$ g (3)**
Research Methods: Introduction
 Asking researchable questions. Reviewing the literature. Hypothesis formulation. Research methodology emphasizes qualitative approaches but includes discussion of instrumentation, subject selection, and data-collection procedures. Andrews' human-subject-research review process. Informed consent. Writing assignments include theoretical essay, pilot study, second pilot study, research journal. Corequisite: STAT285. Recommended for the junior year.

PSYC428 **\$ g (3)**
Research Methods: Survey
 Equips participants with an understanding of the principles undergirding the development of questionnaires and interview schedules; scale construction; administration of survey instruments; coding procedures; and data analysis. Structured around a research project. Corequisite: PSYC354. Prerequisite PSYC427. Recommended for the junior year.

PSYC429 **\$ g (3)**
Research Methods: Experimental
 Examines key principles of experimentation and focuses on how to design, execute, analyze, interpret, and write an experimental research report. Attention given to the interpretation of scientific reports and professional journals. Prerequisites: PSYC354 and PSYC427. Recommended for the junior year.

mended for the junior year.

PSYC438 **(1-4)**
Workshop: _____
 Provides an opportunity to study in a focused area within the Behavioral Sciences.

PSYC449 **g (4)**
Psychopharmacology
 Examines how current psychotropic drugs affect human perception and behavior and how they are used in clinical evaluation. Prerequisites: PSYC101; BIOL111, 112 or BIOL155, 156.

PSYC450 **\$ g (4)**
Social Psychology
 A study of human behavior within a group context. Included are attitudes, social roles, collective behavior, and the dynamic aspects of human interaction. Prerequisites: PSYC101 and SOCI119 or permission of instructor.

PSYC454 **g (4)**
Theories of Personality
 Integrates subfields of psychology to enhance understanding of the individual personality. Prerequisite: PSYC101.

PSYC455 **g (3)**
Treatment of Substance Abuse
 An overview of prevention and treatment techniques, including specific training in therapeutic techniques, and examines the relation between etiology and treatment. Also discusses treatment evaluation. Prerequisites: PSYC101, SOCI415.

PSYC458 **g (3)**
Advanced Theories of Addiction and Treatment
 Survey, critique, and integration of the main theories currently in use to explain the process and outcome of addictions. Includes biological, psychological, social, and anthropological addiction theory and how these theories affect the development of treatment interventions. Normally offered odd years. Prerequisite: PSYC101, SOCI415.

PSYC460 **g (4)**
Psychology of Abnormal Behavior
 A study of deviant human behavior and theories of causation and remediation. Prerequisite: PSYC101.

PSYC465 **\$ g (4)**
Physiological Psychology
 Introduces the biological bases of behavior. Examination of the neuroanatomical and physiological foundations of such topics as the mind/body problem, the development of language and learning, sexual behavior, recovery from brain damage, and psychopathology. Prerequisite: PSYC101.

PSYC466 **g (4)**
Psychology of the Exceptional Child
 A survey of assessment, remediation, and adjustment for exceptional children and youth who require special education and related services. Various types of exceptionality are explored such as mental retardation, learning disabilities, emotional or behavioral disorders, giftedness, disorders of communication, and impairment of hearing or sight. Prerequisite: PSYC101.

PSYC469 **g (4)**
History and Systems of Psychology

A study of significant schools, individuals, and theories in psychology, together with their contributions to present knowledge of behavior. Limited to seniors and grads only or permission of instructor. Prerequisite: PSYC101.

PSYC469 **V g (4.5 qtr; 3 sem)**
History and Systems of Psychology
 Distance education—see content above.

PSYC471 **Alt g (4)**
Behavior Modification
 The theory and techniques of behavior change utilizing principles of conditioning. Applications relevant to health-centered and educational settings are emphasized. Prerequisite: PSYC101.

PSYC476 **g (1, 1, 1)**
Research Colloquium
 Faculty and students present various stages of their research projects and hear presentations on basic research-methodological issues. One credit per quarter may be taken over a maximum of 3 quarters. Recommended for the junior year.

PSYC480 **(1-12)**
Practicum
 Supervised field placement in a human-services setting approved in advance by the department chair. A minimum of 30 hours of fieldwork activity is required for each credit. Consult staff before registering. Open only to departmental majors. Repeatable to 12 credits.

PSYC486 **\$ g (4)**
Psychological Assessment
 Theory and practice in individual and group testing in the areas of intelligence, aptitude, achievement, personality, and interest. Evaluation of tests and other instruments for measurement with a focus on their worth and limitations. Prerequisite: PSYC101, 354.

PSYC495 **(1-4)**
Independent Study/Readings/Research/Project in Psychology
 Set up on a contract basis with no more than 4 credits per quarter. Students may repeat or take any combination of departmental independent study courses up to 8 credits. Consult staff before registering.

PSYC495 **V (1-4.5 qtr; 1-3 sem)**
Independent Study
 Distance education course. Provides an opportunity to work with an instructor on a research project and/or studies in psychology.

PSYC575 **(1-4)**
Topics in Psychology
 Repeatable with different topics.

PSYC648 **(1-4)**
Workshop
 Provides an opportunity to study in a focused area within the Behavioral Sciences.

SOCIOLOGY

SOCI119 **(4)**
Principles of Sociology
 A study of the development of sociology as a social science, some concepts and ideas associated with the study of human behavior, and an overview of the principles, terms, and concepts in the discipline.

SOCI119 <i>Principles of Sociology</i> Distance education—see content above.	V (4.5 qtr; 3 sem)		health and medical systems.		SOCI474 <i>Social Thought and Theory</i> The roots of self-conscious social thought and the rise of sociology and anthropology as scientific disciplines in the 19th century. Major theoretical orientations in their fields, proponents, and impact on present-day sociology and anthropology are reviewed.	Alt g (4)
SOCI120 <i>Marriage Dynamics and Growth</i> An introductory study of the factors leading to a stable marriage relationship and growth within that relationship in contemporary American society.	(3)		SOCI425 <i>Racial and Ethnic Relations</i> A study of the distinctive racial and cultural minorities in American society with an emphasis on problems and adjustments within the larger society.	g (4)		
SOCI306 <i>Pre-Professional Seminar</i> An integrative review of specialty areas in the field with some emphasis on current issues and trends. Graduate-school choice and career opportunities at the college and graduate training levels are discussed.	(1)		SOCI427 <i>Research Methods: Introduction</i> Asking researchable questions. Reviewing the literature. Hypothesis formulation. Research methodology will emphasize qualitative approaches but includes discussion of instrumentation, subject selection, and data-collection procedures. Andrews' human-subject- research review process. Informed consent. Writing assignments include theoretical essay, pilot study, second pilot study, research journal. Corequisite: STAT285. Recommended for the junior year.	\$ g (3)	SOCI476 <i>Research Colloquium</i> Faculty and students present various stages of their research projects and hear presentations on basic research methodological issues. Up to 3 credits may be taken over a maximum of 3 quarters. Recommended for the junior year.	g (1-3)
SOCI315 <i>Criminology</i> Theories and techniques associated with apprehension, conviction, and detention of individuals who infringe criminal law in this society.	Alt (4)		SOCI428 <i>Research Methods: Survey</i> Equips participants to understand the principles undergirding the development of questionnaires and interview schedules; scale construction; administration of survey instruments; coding procedures and data analysis. Structured around a research project. Corequisite: PSYC354. Prerequisite: SOCI427. Recommended for the junior year.	\$ g (3)	SOCI480 <i>Practicum</i> Supervised field placement in a human services setting is approved in advance by the department chair. A minimum of 30 hours of fieldwork is required for each credit. Open only to departmental majors. Repeatable not more than 3 times to 12 credits.	g (1-12)
SOCI345 <i>Juvenile Delinquency</i> Topics related to modern youth in trouble, sociological analysis of the problems of youth, legal and societal factors involved in delinquency, and some of the remedial measures now being used.	(4)		SOCI430 <i>Women in Contemporary Society</i> Significant issues related primarily to the concerns of women as members of American society, but also in cross-cultural perspective. Includes such topics as socialization in sex roles, women in the professions, women in minority groups, the feminization of poverty, and women and substance abuse and crime.	g (4)	SOCI495 <i>Independent Study/Readings/Research/Project in Sociology</i> Set up on a contract basis with no more than 4 credits per quarter. Students may repeat or take any combination of departmental independent study courses for up to 8 credits. Consult staff before registering.	(1-4)
SOCI360 <i>Introduction to International Development</i> Focuses on the dilemmas facing industrialized nations and developing nations in coping with severe global inequalities and poverty. Analyzes the popular strategies and explanations used by governments and non-governmental organizations (NGOs) to deal with these challenges.	Alt (3)		SOCI440 <i>Sociology of the Family</i> The family as a social institution, its biological and cultural foundations, and its historic development and changing structure and function. The interaction of marriage and parenthood and some disorganizing factors in contemporary society examined.	g (3)	SOCI525 <i>National Policy and Substance Use</i> Begins with a historical overview of America's national substance-use policy and focuses on current issues, national priorities, and plans for dealing with substance use. Emphasis on components of developing rational national policy.	(2)
SOCI375 <i>Work and Industry in Society</i> A discussion of human beings at work and how work interfaces with the community. The meaning of work, formal organization, informal group activity, occupational status and mobility, the structure and function of labor unions, and industry-community relationships are examined.	Alt (4)		SOCI460 <i>Death and Grief in Contemporary Society</i> The study of cultural and societal perspectives on death and personal and interpersonal dynamics of death and dying.	g (3)	SOCI530 <i>Community Needs Assessment and Capacity Mapping</i> Introduction to various methods for assessing community needs and mapping community capacity to address those needs.	(3)
SOCI375 <i>Work and Industry in Society</i> Distance education—see content above.	V (4.5 qtr; 3 sem)		SOCI465 <i>Research Methods: Ethnography</i> The role of ethnography in behavioral science research. Classic in ethnography. Pre-participant observation. Interviewing informants. Collecting life histories. Using personal documentation. Content analysis. Writing ethnographic reports. Prerequisite: PSYC427. Recommended for the junior year.	\$ g (3)	SOCI535 <i>Program Planning, Budgeting, and Grantsmanship</i> Building on assessment and capacity mapping, the related topics of program planning, budgeting, and grant writing are presented. Hands-on experience is sought, linking classroom instruction and real community situations.	(3)
SOCI410 <i>Social Gerontology</i> A study of aging and ageism in the United States, including demographic trends, societal attitudes, problems of the elderly, and national policies relating to senior citizens in the cultural context of American society.	Alt g (4)		SOCI470 <i>Demography</i> Overview of the world's population; spatial dimensions of human populations; fertility concepts, measurements, trends, levels, and explanations; mortality and migration; population structures, life chances; population growth, economic development, and the environment.	g (4)	SOCI540 <i>Workshop/Colloquium in Community Development</i> Practical issues encountered in implementing community service and international development programs. Usually offered in conjunction with the Summer Institute of Christian Service.	(2-4)
SOCI415 <i>Substance Abuse in American Society</i> Overview of terminology, historical issues, definitions, epidemiology, consequences and drugs of abuse within an American cultural and historical framework.	Alt g (2)				SOCI545 <i>Program Implementation and Evaluation</i> Strategies for implementation. Review of various methods of evaluation with emphasis on measuring outcomes and assessing quality in community program development.	(3)
SOCI420 <i>Medical Socio-Geography</i> Analysis of the relationship between social characteristics and the incidence and prevalence of disease, as well as geographical determinants of	Alt g (3)					

SOCI580**Seminar in Community Development Leadership**

Topics include philosophical and spiritual foundations, profiles in leadership, strategic planning, grantsmanship, networking and interagency relations, managing volunteers, program evaluation. Offered over 3 quarters.

SOCI585**Seminar in Community Service Programming**

Topics include support services for children, youth, families, single parents, elders, prisoners, refugees, AIDS victims. Offered over 3 quarters.

(2)

BIOLOGY

Price Hall, Room 216
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Faculty

John F. Stout, *Chair*
Gordon J. Atkins
Bill Chobotar
H. Thomas Goodwin
James L. Hayward
Timothy G. Standish
David A. Steen
Dennis W. Woodland
Robert E. Zdor

Academic Programs	Credits
BS: Biology	60
Biomedical	
Botany	
Molecular Biology	
Neurobiology	
Special	
Zoology	
Minor in Biology	30
MS: Biology	44
MAT in Biology	16

Each degree offered by the Biology Department includes a common core curriculum and additional courses tailored to students' special needs.

Highly motivated students may compete for the Biology Undergraduate Research Traineeship (BURT) program. For full details, consult the Biology Department.

Undergraduate Programs

Bachelor of Science

All biology majors must complete the following core and cognate courses:

Biology Core 34
BIOL155, 156, 157, 348, 371, 372, 449, 461, 462, 463.

Cognate Core 36 or 39
CHEM121, 122, 123, 211, 212, 213;
PHYS151, 152, 153 or 251, 252, 253 or 261, 262, 263.

General Education Cognates
RELT340, RELP400, PSYC101.

BS: Biology

Students must complete the *biology core*, the *cognate core*, and the requirements for one of the emphases listed below.

Biomedical Emphasis—24

Must include ZOOL315, 464, 465, BIOL475; PHTH 417 and 427. BCHM401,402 must be included in the *cognate core*.

Botany Emphasis—26

Upper-division biology courses; must include a botany course (BOT prefix) drawn from each of the environmental, morphological, and functional

groups of courses listed below. In addition, one zoological course (ZOOL prefix) must be included.

Molecular Biology Emphasis—24-25

Must include BIOL418, 419, 445, 447, and **two** of the following courses: BIOL475; BIOL444, 446; ZOOL315; BOT470 or ZOOL464. BCHM401, 402 must be included in the *cognate core*.

Neurobiology Emphasis—26

Upper-division biology courses; must include a zoology course (ZOOL prefix) drawn from each of the environmental, morphological, and functional groups of courses listed below. In addition, ZOOL475 and either PSYC364, 365 or 449 must be taken. BCHM423 must be included in the *cognate core*.

Special Emphasis—26

In situations where students are preparing for a specific job opportunity or a graduate or professional program, the special emphasis may be considered if other degree programs are not adequate. The credits must include one biology course each from the functional, morphological, and environmental courses listed below. Additional credits to reach a minimum of 26 are to be selected from courses in biology or other disciplines in consultation with a Biology Department adviser. Departmental approval must be received before the beginning of the winter quarter of the student's junior year.

Zoology Emphasis—26

Upper-division biology courses; must include a zoology course (ZOOL prefix) drawn from each of the environmental, morphological, and functional groups of courses listed below. In addition, one botany course (BOT prefix) must be included.

Minor in Biology—30

BIOL155, 156, 157, 449 and one course each from environmental, morphological, and functional biology electives.

SENIOR THESIS

A minimum of 4 credits of BIOL495 or HONS497. Biology majors may elect to complete a minimum of 4 credits of original research in a topic of mutual interest with a Biology Department staff member and present this original work in the form of a senior thesis. This research experience *may* be supported by a research scholarship.

Graduate Programs

The Biology Department offers courses leading to the Master of Science degree and also cooperates with the School of Education in offering courses leading to the Master of Arts in Teaching degree.

Students are strongly urged to incorporate into their study programs a summer of study at the Marine Biological Station at Rosario Beach, Puget Sound, Washington. During the 8-week summer session, students may earn 10 to 12 credits.

Master of Science