

Accountancy

Contact Information

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 Location: Koffler Hall 115

The Faculty

Professor

Gustave C. Cote, Emeritus

Associate Professor

Ann Galligan Kelley, C.P.A., M.B.A., C.A.G.S.

Assistant Professors

Julia M. Camp, Ph.D.

Carol A. Hartley, C.P.A., M.B.A.

Patrick T. Kelly, Ph.D., *Chairperson*

Judith M. Morse, C.P.A., M.S.T.

Robert G. Rambo, C.P.A., Ph.D.

Margaret P. Ruggieri, C.P.A., M.S.T.

The Major

Accountancy is the study of the means used to communicate financial and economic information to decision makers. The curriculum concentrates on developing a strong understanding of the rationale behind and implications of the accounting treatment afforded various economic transactions. Additionally, the student is introduced to the various tools used by the accounting professional.

The program's objective is to enable the student to adapt the knowledge and skills developed through the study of accounting to new situations encountered in a dynamic business environment. The curriculum includes a variety of learning experiences including case analyses, computer labs and assignments, team projects, oral presentations, internships, and research projects utilizing both manual and electronic resources.

The accountancy program prepares graduates to pursue careers as certified public accountants, private accountants, financial managers, financial analysts, internal auditors, certified management accountants, and government auditors. Graduates are also prepared for advanced study in the fields of law or business. Students who minor in accountancy augment other majors with knowledge and skills that are transferable to a wide variety of careers.

The following major requirements apply to the Classes of 2009, 2010, and 2011. Beginning with the Class of 2012, the accountancy major requirements have changed. For

more information on these requirements, please contact the School of Business directly or visit the Web site at: <http://www.providence.edu/Academics/School+of+Business/>.

Suggested Sequence

Freshman Sem. 1

			Credits
DWC	101	Devel of Western Civilization	5
MTH	107	Math Business Analysis I*	3
ECN	101	Prin of Economics: Micro	3
ACC	101	Intro Accounting I w/lab	3

Freshman Sem. 2

DWC	102	Devel of Western Civilization	5
MTH	108	Math Business Analysis II*	3
ECN	102	Prin of Economics: Macro	3
ACC	102	Intro Accounting II w/lab	3

Sophomore Sem. 1

DWC	201	Devel of Western Civilization	5
ACC	200	Intro to the Profession**	1
ACC	201	Interm Accounting I**	4
MGT	201	Business Statistics	3
		Natural Science Elective	3

Sophomore Sem. 2

DWC	202	Devel of Western Civilization	5
ACC	202	Interm Accounting II**	4
FIN	207	Managerial Finance	3
		Natural Science Elective	3

Junior Sem. 1

ACC	301	Cost & Manage Accounting	3
ACC	305	Advanced Accounting	3
PHL		Philosophy Elective	3
		Fine Arts Elective	3
		Non-Departmental Elective	3

Junior Sem. 2

ACC	350	Acct Information Systems	3
ACC	406	Taxes and Business Decisions	3
PHL		Philosophy Elective	3
THL		Theology Elective	3
		Non-Departmental Elective	3

Senior Sem. 1

ACC	412	Auditing**	4
MGT	330	Legal Environ of Business	3
THL		Theology Requirement	3
		Non-Departmental Elective	3
		Free Elective	3

Senior Sem. 2

ACC 485 Accounting Policy	3
Free Electives (4)	12

*MTH 109-110 Calculus is recommended in lieu of MTH 107-108 for students with suitable math aptitude.

**Beginning with the Class of 2009, the number of credit hours required for accountancy majors has been increased from 116 to 120. ACC 201 Intermediate Accounting I, ACC 202 Intermediate Accounting II, and ACC 412 Auditing are each worth 4 credits. ACC 200 Introduction to the Profession is a required 1-credit course.

C.P.A. Exam Requirement

Requirements to sit for the Uniform Certified Public Accountant (C.P.A.) exam vary by state. Certain states require specific electives and/or additional courses beyond the major requirements stated above. Other states require C.P.A. candidates to have completed 150 hours of education prior to sitting for the C.P.A. exam. Providence College offers a Master of Business Administration Program that provides an opportunity for the student to fulfill the 150 hours education requirement. Students are advised to contact the appropriate state Board of Accountancy for specific requirements and consult with their advisor to develop a plan to meet those requirements. Students may also refer to the accountancy department Web page at www.providence.edu/acc/index.html.

The Minor

Required Courses

- ACC 101-102 Introductory Accounting I & II
2 SEMESTERS, 3 CREDITS EACH
- ACC 201-202 Intermediate Accounting I & II
2 SEMESTERS, 4 CREDITS EACH
- ACC 301 Cost and Management Accounting
1 SEMESTER, 3 CREDITS
- One (1) of the following:
 - ACC 401 Federal Income Taxes
1 SEMESTER, 3 CREDITS
 - OR
 - ACC 406 Taxes and Business Decisions
1 SEMESTER, 3 CREDITS
- An elective in accounting numbered 200 or higher (excludes ACC 401 and ACC 406).

The department recommends that students entering the minor have a GPA of at least 2.0.

The Courses

ACC 101 Introductory Accounting (Part I)

1 SEMESTER, 3 CREDITS

The initial accounting course introduces the basic elements of accounting and the role of accounting in business and society. The course explores the financial statements as the primary means of communicating information to external users. Basic accounting terminology and procedures are presented as a foundation for further studies in accounting and finance.

ACC 102 Introductory Accounting (Part II)

1 SEMESTER, 3 CREDITS

This course is a continuation of ACC 101. The course emphasizes fundamental topics in the accounting for debt and equity. The various forms of business organization are discussed. The preparation, meaning, and interpretation of the financial statements are emphasized. *Prerequisite:* ACC 101 or 103.

ACC 103 Financial Accounting

1 SEMESTER, 3 CREDITS

This one-semester course is intended for students who are not majoring in accountancy or finance. Topics covered in ACC 101 and ACC 102 are introduced from a user's perspective with a focus on reading and understanding information presented in financial statements. Microcomputer applications are used to summarize and analyze financial information. Not open to accountancy and finance majors.

ACC 200 Introduction to the Profession

1 SEMESTER, 1 CREDIT

This co-curricular course introduces students to the professional world of accounting. Various segments of the profession will be explored including, but not limited to, public accounting, tax practice, internal audit, corporate accounting, banking, insurance, non-profit, governmental, and regulatory agency work. This course is offered on a pass/fail basis. *Prerequisite:* ACC 201 Intermediate Accounting, with concurrent enrollment preferred.

ACC 201 Intermediate Accounting I

1 SEMESTER, 4 CREDITS

This course begins by examining the conceptual framework of financial accounting as the theoretical foundation for addressing external reporting issues. The application of accounting theory in financial statements, income and expense recognition, and asset valuation and disclosure

relative to current and long-term assets are considered in detail. Significant attention is given to the interpretation of financial information. *Prerequisite:* ACC 102.

ACC 202 Intermediate Accounting II

I SEMESTER, 3 CREDITS

This course emphasizes the application of accounting principles and objectives of financial reporting in the context of corporate financial statements. Issues related to debt valuation and reporting, accounting for income taxes, revenue recognition, and accounting changes will be considered. Preparation and use of the statement of cash flows will also be considered. *Prerequisite:* ACC 201.

ACC 301 Cost and Management Accounting

I SEMESTER, 3 CREDITS

This course focuses on quantitative tools and analytical techniques used by managers in formulating business strategies. Reporting issues relative to planning and control decisions are heavily explored. Topics include cost-volume-profit analysis, manufacturing cost flow, and cost estimation. Alternative management and accounting methods are studied and their impact on business operations and performance is considered. *Prerequisite:* ACC 102.

ACC 305 Advanced Accounting

I SEMESTER, 3 CREDITS

This course emphasizes the application of accounting principles and objectives of financial reporting relative to a variety of entities. The corporate entity is explored in the context of accounting and reporting of stockholders' equity, investments, and earnings per share. Business combinations and consolidations are considered. Accounting and reporting for partnership, governmental units, and not-for-profit entities are surveyed. *Prerequisite:* ACC 202.

ACC 350 Accounting Information Systems

I SEMESTER, 3 CREDITS

This course develops an awareness of the role of the accounting information system (AIS) in achieving organizational objectives. It explores, in detail, several typical AIS application subsystems, such as revenue/receivables, purchases/payables, inventory, cash receipts/disbursements, and financial planning/reporting. The concepts of risk and control are introduced in the context of the AIS. *Prerequisite:* ACC 301 or permission of instructor.

ACC 401 Federal Income Taxes

I SEMESTER, 3 CREDITS

The objective of this course is to provide the student with a basic understanding of Federal taxation in general, and Federal individual income taxation, in particular. The course work includes both manual and computer-assisted research and preparation of individual income tax returns. Tax planning considerations are discussed. *Prerequisite:* ACC 102 or 103.

ACC 406 Taxes and Business Decisions

I SEMESTER, 3 CREDITS

This course examines the role taxes play in business decisions, particularly Federal taxes on income. A survey of the Federal tax laws as they affect different types of income and deductions is included. The differences between tax and business treatment of common business activities, events, and transactions are discussed. *Prerequisite:* ACC 102 or 103.

ACC 412 Auditing

I SEMESTER, 4 CREDITS

This course develops an understanding and appreciation of the philosophy of the auditing process and the role of internal and external auditing in an organization. The concepts of risk and control, evidence, and documentation are considered. Ethical issues in the audit environment are considered. *Prerequisite:* ACC 350 or permission of instructor.

ACC 441 Frauds, Scandals, and Scams

I SEMESTER, 3 CREDITS

This course examines the history of accounting frauds, scandals, and scams from the early days of the McKesson-Robbins scandal in the 1930s to the more current frauds of Enron and WorldCom in the 21st century. This course explores common themes, ethical questions, motivational factors, and prevention. *Prerequisite:* ACC 101 or ACC 103; *corequisite:* PHL 202 or PHL 306.

ACC 450 Accountancy Internship

I SEMESTER, 3 CREDITS

Offers credit to students participating in department approved internships in for-profit or not-for-profit organizations or governmental agencies. Provides the student with a valuable experiential learning opportunity. Academic assignments, as specified in the accountancy internship contract, must be completed. Departmental approval required.

ACC 485 Accounting Policy

I SEMESTER, 3 CREDITS

This course requires students to integrate, extend, analyze, and apply knowledge gained in the major to demonstrate mastery of the accounting discipline within a liberal arts experience. The course focuses on internal and external reporting issues incorporating concepts from financial accounting, cost/managerial accounting, accounting information systems, advanced accounting, auditing, and taxation. *Prerequisite: Senior accountancy majors or minors.*

ACC 490 Independent Study in Accounting

I SEMESTER, 1-3 CREDITS

Open primarily to senior accountancy majors. The student is provided the opportunity to fully explore advanced topics in the field. The number of credits is determined by consultation with the faculty member responsible for the project and the chairperson. *Prerequisite: Permission of the chairperson.*

American Studies

Contact Information

Phone: 401.865.2689

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Location: Phillips Memorial Library 317

The Faculty*Professors*

Alice H. R. H. Beckwith, Ph.D. (Art History)

Mario R. DiNunzio, Ph.D. (History)

Richard J. Grace, Ph.D. (History)

Bruce E. Graver, Ph.D. (English)

Eric L. Hirsch, Ph.D. (Sociology)

Deborah J. Johnson, Ph.D. (Art History)

Keith Morton, Ph.D.

(Public and Community Service Studies)

Ann W. Norton, Ph.D. (Art History)

Josephine A. Ruggiero, Ph.D. (Sociology)

Associate Professors

Rev. Jon A. Alexander, O.P., Ph.D. (History)

Suzanne J. Fournier, Ph.D. (English)

Rev. Kenneth R. Gumbert, O.P., M.F.A.

(Theatre, Dance, and Film)

Margaret K. Reid, Ph.D. (English), *Interim Director**Assistant Professors*

Joseph P. Cammarano, Ph.D. (Political Science)

John M. Lawless, Ph.D. (History)

Margaret M. Manchester, Ph.D. (History)

The Major

A program is offered in American studies that leads to the bachelor of arts degree.

American studies is an interdisciplinary program that studies the history, literature, culture, and institutions that make up the American experience. This interdisciplinary character is exhibited in two ways: (1) students take their 12 hours of mandated American studies electives from among a wide variety of courses offered by the College in the humanities, the social sciences, and the arts; (2) students also take 12 hours of special American studies seminars in their junior and senior years. These seminars are organized around specific topics in the American experience. They give the concentration its special strength and character.

American studies allows individuals to design their programs according to their own needs and interests. Each major works closely with an advisor to develop a course of studies that will be most individually beneficial. It is possible, therefore, to concentrate one's American studies electives within a single traditional discipline. It is also possible to effect a new synthesis by carefully choosing from among the more than 80 courses designed as American studies electives. A list of designated electives is posted by the director of the program before registration each semester.

American studies provides its graduates with a good deal of flexibility. It is important to remember in this period of intense pressure toward narrow vocationalism that the life of the mind is best served by fully developing the powers of analysis, responsiveness, expression, and computation. The program is designed to provide a solid background for students interested in professional studies such as law, administration, or teaching; for M.B.A. programs (most of which prefer non-business majors); for graduate work in American studies itself, or in one of its constituent fields; for government, journalism, civil service, or communications.

A major in American studies requires 30 credits: six credits in U.S. history, taken in the freshman or sophomore year; 12 credits of American studies electives, taken in the junior and senior years from among the more than 80 designated courses; 12 credits in the junior-senior seminars.

Suggested Sequence

		Credits
<i>Freshman Sem. 1</i>		
DWC 101	Devel of Western Civilization	5
	Fine Arts Elective	3
	Free Electives (2)	6
<i>Freshman Sem. 2</i>		
DWC 102	Devel of Western Civilization	5
MTH	Math Elective	3
	Free Electives (2)	6
<i>Sophomore Sem. 1</i>		
DWC 201	Devel of Western Civilization	5
	Natural Science Elective	3
HIS 103	U.S. History	3
	Free Elective	3
<i>Sophomore Sem. 2</i>		
DWC 202	Devel of Western Civilization	5
	Natural Science Elective	3
HIS 104	U.S. History	3
	Free Elective	3
<i>Junior Sem. 1</i>		
AMS	American Studies Seminar	3
AMS	American Studies Elective	3
THL	Theology Elective	3
	Free Electives (2)	6
<i>Junior Sem. 2</i>		
AMS	American Studies Seminar	3
AMS	American Studies Elective	3
THL	Theology Elective	3
	Free Electives (2)	6
<i>Senior Sem. 1</i>		
AMS	American Studies Seminar	3
AMS	American Studies Elective	3
PHL	Philosophy Elective	3
	Free Electives (2)	6
<i>Senior Sem. 2</i>		
AMS	American Studies Seminar	3
AMS	American Studies Elective	3
PHL	Philosophy Elective (Ethics)	3
	Free Electives (2)	6

NOTE: The above sequence reflects a suggested program of study but is subject to adjustment on the part of the student, especially with regard to when core requirements are fulfilled.

The Courses

AMS 101 Introduction to American Studies

I SEMESTER, 3 CREDITS

This course will introduce students to the basic issues, methodology, and tools in examining a broad range of topics relevant to the study of American history and culture. Thematic topics vary from semester to semester. Satisfies an AMS elective requirement.

AMS 108 History of Photography

I SEMESTER, 3 CREDITS (Fine Arts Core)

A history of the development of photography as an art, from its invention in 1839 to the present. *Same as ARH 108.*

AMS 120 History of Film: The Silent Period and the Transition to Sound

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course traces the history of cinema from its beginnings at the turn of the 20th century to the establishment of the sound cinema. Emphasis is given to film as an art form as well as a social and political phenomenon in the United States and throughout the world. *Same as TDF 120.*

AMS 121 History of Film: The Classic Era 1940-1960 and Beyond 1960-1990

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course traces key films and movements in the history of the cinema, from the classic Hollywood era in the 1940s to the flowering of international and independent cinema of the present. Emphasis is on cinema as an art form, medium of entertainment, and its development alongside politics, society, and the other arts. *Same as TDF 121.*

AMS 207 American Art

I SEMESTER, 3 CREDITS

An introduction to American painting, sculpture, and architecture from Colonial times to the present. *Same as ARH 207. Prerequisites: ARH 106 suggested.*

AMS 220 The Catholic Imagination of Four American Filmmakers

I SEMESTER, 3 CREDITS (Fine Arts Core)

An intensive study of the films of John Ford, Frank Capra, Alfred Hitchcock, and Martin Scorsese emphasizing the Catholic imagination from which each of these directors was influenced. The social, psychological, and theological themes found in each filmmaker are considered as ways in which they used their personal concerns to tell popular stories. *Same as TDF 220.*

AMS 226 Music in the United States

I SEMESTER, 3 CREDITS (Fine Arts Core)

A study of the history of American music from the Colonial period to the present, with special attention given to the interaction between music and society. Analytical listening and comparison will form an important part of the course. *Same as MSC 226.*

AMS 227 History of Jazz

I SEMESTER, 3 CREDITS (Fine Arts Core)

A study of the history of jazz from African music to contemporary trends and more popular forms. Emphasis will be placed on styles and performers. Analytical listening will be required. *Same as BLS 227 and MSC 227.*

AMS 301 Development of North American Architecture

I SEMESTER, 3 CREDITS (Fine Arts Core)

A study of North American architecture and the cultural context in which it was produced, from the 17th century to the present. *Same as ARH 301. Prerequisite: ARH 106 or permission of instructor.*

AMS 304 American and European Art Since 1945

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course will introduce major trends in Western, and especially, American art post-World War II. A variety of media will be addressed, including not only the traditional visual arts, but a full range of new genres, as well. Social and cultural context for works of art and the shifts in style will be emphasized. *Same as ARH 304. Prerequisite: ARH 106 or 209.*

AMS 318 Globalization and Social Justice

I SEMESTER, 3 CREDITS

With the fall of socialist states, capitalist markets, economic relations, and consumerism have become truly global. Examine the political, cultural, and economic origins, consequences, and responses (with specific concern for the prospects for social justice, democracy and equality) in the rich and poor countries of the world; the impacts on workers; the ecological, resource, and environmental implications; and anti-corporate globalization resistance movements. *Same as GST 318, SOC 318, and WMS 318.*

AMS 321 Social Change

I SEMESTER, 3 CREDITS (Social Science Core)

Examines classical and contemporary explanations of the nature (what?), causes (why?), agents (by whom?),

processes (how?), and responses to change. Focus is on a societal and a global level. Emphasis on American social trends during the 20th century and the 1960s and its legacy. *Same as SOC 321. Prerequisite: SOC 101. Not open to freshmen.*

AMS 325 African-American Women

I SEMESTER, 3 CREDITS

Focuses on sociological analyses of the constructions and reconstructions of African-American women, examining the interrelationships of gender, race, caste, class, racism, and sexism in the United States, past and present. Topics include the family, male-female relations, poverty, discrimination, and social movements with particular emphasis on origins, consequences, social and individual changes and resistance to change, sociological, and feminist theories. *Same as BLS 325, SOC 325, and WMS 325.*

AMS 331 American Philosophy

I SEMESTER, 3 CREDITS (Philosophy Core)

A critical study and analysis of the writings of outstanding American philosophers. *Same as PHL 321.*

AMS 335 Human Relations in Business

I SEMESTER, 3 CREDITS (Social Science Core)

An introduction to the study of human relations at work, particularly in the business world. This course investigates human social behavior within modern organizations from the perspective of sociology. *Same as SOC 335.*

AMS 450 Internship

I SEMESTER, 3 CREDITS

An opportunity for students to broaden their understanding of American history and culture by working as interns at institutions such as the Rhode Island or Newport Historical Society, Peabody Essex Museum, Providence City Hall, Slater Mill Historic Site, or the Providence Maritime Foundation. Internship opportunities within the broad area of communications also are available for students wishing to test out career interests and to develop professional skills.

AMS 470 Seminar: Special Topics in American Studies

I SEMESTER, 3 CREDITS

The topics discussed in the seminar vary from semester to semester.

AMS 480 Seminar: The History and Culture of the Cold War

I SEMESTER, 3 CREDITS

This course studies the roots and course of the Cold War, and its impact on domestic culture—Hollywood's response to McCarthyism, the impact of anticommunism on domestic ideology and sexuality, and the implications of America's international anti-Communist crusade on its political institutions. *Same as HIS 485.*

AMS 481 Seminar: The West in the American Imagination

I SEMESTER, 3 CREDITS

Focuses on the American West and its place in American culture and imagination, including the significance of the frontier in American history; cultural contacts and contracts; the impact of race, gender, and ethnicity on one's experience of the West; the economic and environmental history of the region. Study some of the cultural icons that contribute to "imagining the West." *Same as HIS 486.*

AMS 482 Seminar: Smith Hill: A Study in Community and Place

I SEMESTER, 3 CREDITS

This course serves as an interdisciplinary introduction to community history with emphasis on the concepts of identity, community, and place. It explores these concepts in the broader context of American culture and through the particular history of Smith Hill, a neighborhood adjacent to Providence College.

AMS 483 Seminar: The Simple Life in American Culture

I SEMESTER, 3 CREDITS

Explores the cultural history of simple living in America over the last 300 years and the tension between this idea and the dominant cultural emphasis on moral, institutional, political, and economic ideas that argue for high consumption of energy and resources. The focus is on simple living as an element of mainstream culture.

AMS 484 Seminar: Childhood in America

I SEMESTER, 3 CREDITS

This course explores how American culture has defined and used the concept of "childhood" over the past 200 years, with a particular focus on the ways in which media transformations (literacy, radio, television, video, computers) have affected our ideas about childhood and informed many of the public and private institutions we take for granted.

AMS 486 Seminar: Making of Modern America

I SEMESTER, 3 CREDITS

This course will examine the emergence of “modern” America during the last quarter of the 19th century. Topics will include the impact of industrialization, urbanization, and immigration on all facets of American life and how these influenced art, architecture, music, and literature.

AMS 490 Independent Study

I SEMESTER, 3 CREDITS

Students will have the opportunity to work with a faculty member on a topic of particular interest. Course work typically involves either directed readings or a research project. *Prerequisite: Permission of the director required.*

NOTE: Additional electives in American studies are offered in the anthropology, art history, black studies, English, film, history, music, political science, sociology, public service, theatre arts, theology, and women’s studies programs. Each semester, additional seminars developed around a particular topic or theme in American history and culture also are offered.

Anthropology

The Faculty*Associate Professor*

Sister Leslie Ellen Straub, O.P., Ph.D.

The Program

The program of study in anthropology provides opportunities to study culture, in all of its complexity and forms of expression, in societies ranging from small-scale and technologically simple ones to those that are complex, urban, and technologically advanced. Such study allows students to develop a perception and appreciation of their own culture while becoming aware of the common ground shared by all peoples and cultures.

Courses in anthropology enrich the liberal arts education available at Providence College and help students prepare for further study and for careers in a variety of settings: international affairs and business management, health care and medicine, preservation of cultural resources, public environmental concerns, community development, city planning, education, architecture, and law. Students interested in the Peace Corps, public service, religious service groups, or similar organizations, will find the study of anthropology especially useful.

Offered are general elective courses, courses that fulfill general degree requirements of the College, and courses that fulfill requirements of specific programs.

The Courses

Some of the following courses are not offered every year. Students should consult their pre-registration course listings regarding the availability of particular courses for any given semester.

APG 101 Introduction to Cultural Anthropology

I SEMESTER, 3 CREDITS (Social Science Core)

Focuses on the study of human persons as makers of tools, rules, and moral judgments, and provides a comparison of the ways in which people in Western and non-Western countries make sense of their experience and of their environment.

APG 203 Introduction to Physical Anthropology

I SEMESTER, 3 CREDITS (Natural Science Group II Core)

This course is an introduction to human evolution and racial variation, with consideration of population dynamics, Darwinian theory, classification and interpretation of fossil evidence, as well as the evolution of culture during the Ice Ages.

APG 205 Prehistoric Archaeology

I SEMESTER, 3 CREDITS (Social Science Core)

This course introduces the student to the methods, theory, and interpretation of prehistoric archaeology, focusing on the evolution of human cultures, their subsistence technologies, and forms of social organization and ideology as revealed by the archaeological record, from the end of the Ice Ages to the rise of early civilizations in both the Old and New Worlds.

APG 221 Latin America: Mexico and Central America

I SEMESTER, 3 CREDITS (Social Science Core)

This course focuses on peoples, cultures, and environments in the frontier areas of northern Mexico and Central America as well as in the heartland regions of Mexico-Guatemala. Study will include islands of the West Indies in that sector of the Caribbean which is socially and culturally related to Central America.

APG 222 Latin America: South America

I SEMESTER, 3 CREDITS (Social Science Core)

This course studies peoples and cultures of South America. A range of groups from tribal Indian through peasants to urbanites will be considered. Rural-urban relationships and those between people and their environments will be examined. Those islands of the Caribbean whose social and cultural characteristics are shared by the northern coastal portions of South America will be included.

APG 228 Native Peoples of the United States and Canada

I SEMESTER, 3 CREDITS (Social Science Core)

This course concentrates on contemporary Native Americans: environmental setting, ways of life, historical experience, and cultural background. Attention is given to native life on and off the reservations, including governmental policies, and to present means of expressing indigenous cultural identity and of preserving or revitalizing traditional culture patterns in areas such as arts, religion, technology, and view of the world.

APG 238 Religion and Magic

I SEMESTER, 3 CREDITS (Social Science Core)

The most general forms of religion and magic including the belief in spirits, souls, and impersonal supernatural power are studied. The relationship between culture change and religion is considered with special reference to religious syncretism, revitalization movements, altered states of awareness in sacred context, and the interest in the occult.

APG 245 Cities and Urban Life

I SEMESTER, 3 CREDITS (Social Science Core)

This course considers urban form, the types of urban growth, relationships between urban centers and outlying districts, and urbanization, in various parts of the world. It focuses especially on appreciation of neighborhood and city, the environmental impact of the city, and the application of anthropological research to contemporary issues (e.g., poverty, redevelopment) in urban living.

APG 301 Art in Everyday Life

I SEMESTER, 3 CREDITS (Fine Arts Core)

Art, aesthetic expression, and social standards for judging artistic products and process are examined in cross-cultural perspective. Data are drawn from Oceania, Africa, Asia, and the Americas, as well as from the folk art of Europe. A variety of art forms, such as ritual symbols; pottery; basketry; wood, stone, and bone carving; and dwellings; textiles; and bodily adornment, will be studied.

APG 303 Sacred Journeys

I SEMESTER, 3 CREDITS

This course studies religious pilgrimages in historical, cultural, and social contexts. Our purpose is to reveal the richness and profundity of religious experience through consideration of the persons, places, symbols, and processes associated with these sacred journeys. Examples of medieval, post medieval, and contemporary pil-

grimages will be drawn from Asia, Europe, and the Americas.

APG 304 The Built Environment

I SEMESTER, 3 CREDITS

This course focuses on the social and cultural study of human, physical alteration of the natural environment; emphasizing the products of human building activity, place, and the social production of built forms within the context of society's institutions and history. It examines the meaning and impact of the built environment (including landscape) revealed in building decisions, metaphorical connections, and ritual.

APG 325 India: Cultural Studies

I SEMESTER, 3 CREDITS (Social Science Core)

This course examines substantive and theoretical problems of caste, politics, language, family, social change, religion, and artistic expression in India and the surrounding cultures of Pakistan, Bangladesh, Nepal, and Sri Lanka. Peoples of the sub-continent include traditional, tribal, and "modern" groups in order to understand the multifaceted societies of this vast and influential area of Asia.

APG 327 Himalayan Cultural Studies

I SEMESTER, 3 CREDITS (Social Science Core)

This study of the Himalayan Region includes Nepal, Tibet, Ladakh, Sikkim, Bhutan, and Mongolia. It concerns historico-political, familial, linguistic, religious, and artistic elements of the various cultures; addressing cultural stability and change in relation to each of the people studied through past centuries and in the contemporary period.

APG 339 Faith and Healing

I SEMESTER, 3 CREDITS

This course studies the search for healing and wholeness through religious beliefs and rituals. The focus is upon healing rites at the formal and folk levels of expression, shrines and pilgrimages associated with the quest for healing, and systems of healing in syncretistic religions.

APG 401 Theory in Anthropology

I SEMESTER, 3 CREDITS

This course studies the ideas and issues of importance in social and cultural anthropology as it developed within the framework of Western thought. *Prerequisite: Junior or senior status.*

APG 450 Field Experience

I SEMESTER, 3 CREDITS

Field Experience offers an opportunity for understanding and growth in knowledge through a cultural setting other than one's own. Students and supervising faculty share responsibilities in preparation, actual time in the field, and the report upon return. The scheduling of the field experience depends on the nature of the project proposed with summer or other vacation periods being the preferred time.

APG 470 Special Topics in Anthropology

I SEMESTER, 3 CREDITS

This course is intended to provide students with the opportunity to study a variety of subjects in anthropology of value in a liberal arts education, but which are not currently covered, or not ordinarily treated in depth. The format of the course may vary with instructor and topic chosen. *Prerequisite: Junior or senior status or permission of instructor.*

APG 490 Independent Study

I SEMESTER, 3 CREDITS

This course is designed to permit students to engage in intensive reading or special research under the direction of one or more members of the anthropology staff. *Prerequisite: Permission of Department of Sociology chairperson.*

Art and Art History

Contact Information

Phone: 401.865.2401
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The Faculty

Professors

Alice H. R. H. Beckwith, Ph.D.
 Rev. Adrian G. Dabash, O.P., M.F.A.
 Deborah J. Johnson, Ph.D.
 Rev. Richard A. McAlister, O.P., M.F.A., Emeritus
 Ann W. Norton, Ph.D.

Associate Professors

Joan R. Branham, Ph.D., *Chairperson*
 James S. Janecek, M.F.A.

Assistant Professors

Lynn M. Curtis, M.F.A.
 John DiCicco, M.A.
 Thomas F. Strasser, Ph.D.

The Majors

The Department of Art and Art History offers a program of study leading to a degree of bachelor of arts in studio art or art history.

The Major in Studio Art

The studio art program stresses a strong foundation in both the fine arts and the liberal arts on which to build careers in the art field. The student is also prepared for graduate study leading to an M.F.A. in studio art, an M.A.T. in art education, or an M.A. in studio.

By the end of the sophomore year, studio art majors choose a concentration area: ceramics, digital imaging, drawing, painting, photography, printmaking, or sculpture. The studio art major takes courses not only in his/her field of concentration, but is also encouraged to experiment in other media in order to gain a wider knowledge of the studio arts. In the second semester of the senior year, with the guidance of the advisor, the studio art major is required to present a thesis exhibition as a culmination of the concentration studies.

Suggested Sequence: Studio Art

Freshman Sem. 1			Credits
DWC	101	Devel of Western Civilization	5
ART	101	Visual Design I	3
ART	111	Drawing I	3
ARH	106	Art History Survey	3

Freshman Sem. 2

DWC	102	Devel of Western Civilization	5
ART	102	Visual Design II	3
ART	112	Drawing II	3
ARH		Art History Elective	3

Sophomore Sem. 1

DWC	201	Devel of Western Civilization	5
		Natural Science Elective	3
ART	213	Drawing III	3
ART		Studio Elective	3

Sophomore Sem. 2

DWC	202	Devel of Western Civilization	5
		Natural Science Elective	3
ART		Studio Elective	3
		Non-Departmental Elective	3

Junior Sem. 1

ART		Art Concentration I	3
ART		Studio Elective	3
ARH		Art History Elective	3
THL		Theology Elective	3
		Non-Departmental Elective	3

Junior Sem. 2

ART		Art Concentration II	3
ART		Studio Elective	3
		Social Science Elective	3
MTH		Math Elective	3
PHL	407	Philosophy of Art*	3

Senior Sem. 1

ART		Art Concentration III	3
ARH		Art History Elective	3
PHL		Philosophy Elective (Ethics)	3
		Non-Departmental Elective	3
		Free Elective (may be studio/art history)	3

Senior Sem. 2

ART		Art Concentration IV	3
		Social Science Elective	3
THL		Theology Elective	3
		Free Electives (may be studio/ art history)	6

*Philosophy of Art recommended for majors when offered.

The Minor: Studio Art

A studio minor can be earned in one of the following areas: ceramics, digital imaging, drawing, painting, photography, printmaking, or sculpture. The minor requires 21 credit hours of study. All studio minors participate in a group exhibition in the spring of their senior year.

Required Courses

- I. Three foundation courses:
 - a. Design (one of the following)
 - ART 101 Visual Design I
 - ART 102 Visual Design II
 - ART 105 Computer Art
 - b. ART 111 Drawing I
 - c. ARH 106 Art History Survey
2. One introductory studio elective from the following:
 - ART 121 Sculpture I
 - ART 131 Painting I
 - ART 141 Monotype
 - ART 151 Ceramics I
 - ART 171 Photography I
 - ART 242 Digital Imaging: Etching
 - ART 243 Digital Imaging: Screenprinting.
3. Three courses in one of the following concentrations: ceramics, digital imaging, drawing, painting, photography, printmaking, or sculpture.

The Courses

Note: Studio courses indicated with an asterisk () require six class hours per week.*

ART 101 Visual Design I*

I SEMESTER, 3 CREDITS (Fine Arts Core)

An investigation of the elements of two-dimensional design: line, shape, value, texture, and color according to the principles of organization in the formulation of compositional unity as expressed on two-dimensional surfaces in the visual arts whether it be in drawing, painting, photography, printmaking, or digital imaging.

ART 102 Visual Design II*

I SEMESTER, 3 CREDITS (Fine Arts Core)

An investigation of the elements of three-dimensional design: line, shape, value, texture, color, and space according to the principles of organization in formulating compositional unity as expressed in all of the three-dimensional visual arts: sculpture, architecture, ceramics, or the performing arts. Emphasis is on the treatment of real space and spatial relationships in works ranging from reliefs to videos.

ART 105 Computer Art

I SEMESTER, 3 CREDITS

Introduction to the principles of basic design through the use of the computer as an art medium.

ART 108 Introduction to Desktop Publishing

I SEMESTER, 3 CREDITS

For the student wanting an introduction to graphic design using the ubiquitous desktop computer and a desktop publishing program. Lectures include: history of graphic design, visual perception, typographic layout, and an introduction to desktop computer software. Projects will cover those used for intro-level jobs, e.g., newsletters, stationery, brochures. Evaluations will include the above projects and class critiques.

ART 111 Drawing I*

I SEMESTER, 3 CREDITS (Fine Arts Core)

An introduction to the elements of drawing, with emphasis on the development of perceptual abilities. Studio assignments involve direct observation of still life, the human figure, landscape, and interior spaces. Materials used are charcoal, graphite, and ink. Outside assignments required.

ART 112 Drawing II*

I SEMESTER, 3 CREDITS

Studio work from the live model and other motifs. Further development of perceptual approach, with emphasis on compositional structure and elements of form. Students develop a critical vocabulary through group discussion of class assignments and consideration of historical and contemporary examples of drawing. *Prerequisite:* ART 111.

ART 121 Sculpture I*

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course is an introductory course dealing with the techniques of modeling, casting, and carving as well as the materials, tools, principles, and elements of sculpture that the student will directly experience through problem solving of assigned projects.

ART 122 Sculpture II*

I SEMESTER, 3 CREDITS

This course is an in-depth continuation of the principles and techniques mastered in ART 121. The student will decide what materials will be used in the creation and completion of at least five or more serious sculptural projects. The exact number of works is dependent upon the material chosen and the difficulty of the project. *Prerequisite:* ART 121.

ART 131 Painting I*

I SEMESTER, 3 CREDITS (Fine Arts Core)

Studio work dealing with basic problems of organizing and evaluating two-dimensional form. Emphasis on the use of structure and design to establish pictorial relationships in color, space, and form.

ART 132 Painting II*

I SEMESTER, 3 CREDITS

Studio work seeking to develop more complex treatment of the principles studied in Painting I. Emphasis on technical proficiency through practice. Familiarity with historical and contemporary idioms of painting will be expected. *Prerequisite:* ART 131.

ART 141 Monotype*

I SEMESTER, 3 CREDITS (Fine Arts Core)

A combination of drawing, painting, and print vocabulary serving to familiarize the student with printmaking and its ability to assist in developing a visual statement. Images will explore the serial progression of an idea through multiple black and white and color impressions.

ART 151 Ceramics I*

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course enables students to make ceramic objects that are hand built rather than thrown on the wheel. Basic and advanced hand-building skills such as coil, slab, pinch, and press molding are taught as students gain knowledge about materials, glazing, and firing.

ART 152 Ceramics II: Wheelworking*

I SEMESTER, 3 CREDITS

This course centers on wheel throwing as a means of making ceramic forms. Basic and advanced throwing skills, material concepts, glazing, and firing are covered. Reduction, Raku, and electric glazes are introduced as the student constructs functional and non-functional forms of clay. *Prerequisite:* ART 151.

ART 171 Photography I*

I SEMESTER, 3 CREDITS (Fine Arts Core)

An introduction to black and white photography. The course will include processing the negative and print, darkroom technique, camera, optics, composition, and critiques of student work. The student should have access to a 35mm camera with an adjustable shutter and lens.

ART 213 Drawing III*

I SEMESTER, 3 CREDITS

A continuation of Drawing II and an introduction to projects requiring longer preparation. Students may begin to work in color. *Prerequisite:* ART 112.

ART 223 Sculpture III: Life Sculpture*

I SEMESTER, 3 CREDITS

An introduction to the study of the human figure in which the human form is investigated directly from a model in order to observe the human form in its various spatial positions: standing, sitting, or reclining. In addition, the student will do studies of the head, hands and feet, actual renderings of the model. *Prerequisite:* ART 121.

ART 233 Painting III*

I SEMESTER, 3 CREDITS

An advanced course in painting in which the student is encouraged to develop an expanded vocabulary of forms through research and technical exploration. *Prerequisite:* ART 132.

ART 242 Digital Imaging: Etching*

I SEMESTER, 3 CREDITS (Fine Arts Core)

Utilizes the computer and drawing to produce full color images in a traditional print medium, intaglio etching. Through a series of lecture demonstrations, there will be an introduction to hands-on drawing experience, plate preparation, and Photoshop visual imaging software. Experience in drawing or Photoshop is not required, although some computer literacy would be useful.

ART 243 Digital Imaging: Screenprinting*

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course will be an introduction to hands-on drawing experience and Photoshop visual imaging software. Through a series of lecture demonstrations, the computer and drawing will be used to explore full-color images in screenprinting. As in ART 242, experience in drawing or Photoshop is not required, although some computer literacy would be helpful.

ART 246 Digital Imaging: Type/Design/Art*

I SEMESTER, 3 CREDITS

This studio course uses computers and drawing to investigate typography as an art form. There will be a thorough review of the history and construction of typefaces since the Renaissance and each person will use the computer to research, draw, and create a new and unique typeface.

ART 248 Digital Imaging: Moving Pictures*

Through a series of carefully constructed assignments, images of the student's own creation will combine with sound to become professional quality digital animations. Students will draw with the computer, invent visual storytelling concepts, and learn to use interactive development software.

ART 253 Ceramics III: Advanced Wheelwork*

I SEMESTER, 3 CREDITS

Ceramics majors develop a personal sense of direction with assignments that increase skill and artistry. Students learn to relate their work to historical and contemporary traditions. Glaze chemistry will also be introduced so that the student can begin the process of involvement with the technical demands of glazing. *Prerequisite:* ART 152.

ART 270 Special Topics in Studio Art*

I SEMESTER, 3 CREDITS

ART 270, 370, 470 are special topics courses on subjects of special interest offered students at different levels in various areas of studio art.

ART 272 Photography II*

I SEMESTER, 3 CREDITS

(Required of all photography majors.)

A continuation of Photography I. The intermediate student is encouraged to develop his/her own style through a series of technique-oriented projects. The class is structured around weekly critiques of student work. *Prerequisite:* ART 171 or permission of the instructor.

ART 273 Photography III: Color Photography*

I SEMESTER, 3 CREDITS

(Required of all photography majors.) An introduction to color photography. The student will also be required to produce a high level of design and finish. *Prerequisite:* ART 272 or permission of the instructor.

ART 314 Drawing IV*

I SEMESTER, 3 CREDITS

Advanced work dealing with more innovative aspects of drawing, encouraging exploration of personal forms and themes. All studio majors are strongly encouraged to take elective courses in drawing, as it is the basis of growth in all areas of art. *Prerequisite:* ART 213.

ART 315 Drawing V*

I SEMESTER, 3 CREDITS

Prerequisite: ART 314.

ART 324 Sculpture IV*

I SEMESTER, 3 CREDITS

The sculptures in this course look toward a senior thesis show. Therefore, the student should reflect a skillful command of the materials and tools used. Once the projects are chosen, the student will meet with the instructor periodically for criticism and evaluation. The works produced should witness to a unique perspective and perception that is creative and interesting visually. *Prerequisite:* ART 121.

ART 325 Sculpture V*

I SEMESTER, 3 CREDITS

Prerequisite: ART 324.

ART 334 Painting IV*

I SEMESTER, 3 CREDITS

Prerequisite: ART 233.

ART 335 Painting V*

I SEMESTER, 3 CREDITS

Prerequisite: ART 334.**ART 336 Painting VI***

I SEMESTER, 3 CREDITS

Prerequisite: ART 335.**ART 344 Printmaking IV: Advanced Relief/Intaglio***

I SEMESTER, 3 CREDITS

Advanced and experimental work in relief or intaglio, including the use of multiple print media and collage in realizing an image in a unique impression or a limited edition. *Prerequisite:* ART 242.

ART 345 Printmaking V: Advanced Screenprinting*

I SEMESTER, 3 CREDITS

Advanced non-toxic screenprinting. Continued investigation including larger format, photographic ideas, and the ability to produce a limited edition. *Prerequisite:* ART 243.

ART 354 Ceramics IV: Sculpture*

I SEMESTER, 3 CREDITS

Development of concepts, objects, installations, and environments using ceramic materials. *Prerequisite:* ART 152.

ART 355 Ceramics V: Production*

I SEMESTER, 3 CREDITS

Students will explore various production processes. Attention will be given to casting methods, hand building, and wheelwork. *Prerequisite:* ART 152.

ART 370 Special Topics in Studio Art*

I SEMESTER, 3 CREDITS

ART 270, 370, 470 are special topics courses on subjects of special interest offered students at different levels in various areas of studio art.

ART 374 Photography IV*

I SEMESTER, 3 CREDITS

An advanced color and black and white course. Students will continue perfecting their color skills, but will also be introduced to experimental color and black and white projects structured to expand photography beyond the continuous tone image. *Prerequisite:* ART 272 and 273.

ART 375 Photography V: The View Camera*

I SEMESTER, 3 CREDITS

(Required of all photography majors.)

An introduction to large-format photography. The course is structured around the 4 x 5 view camera, with projects in portrait, still life, and architectural photography. *Prerequisite:* ART 272.

ART 416 Drawing VI*

I SEMESTER, 3 CREDITS

Prerequisite: ART 315.**ART 426 Sculpture VI***

I SEMESTER, 3 CREDITS

Prerequisite: ART 325.**ART 446 Printmaking VI***

I SEMESTER, 3 CREDITS

Advanced imagemaking through an independent study program prearranged with the instructor. *Prerequisite:* ART 344 or 345.

ART 456 Ceramics VI*

I SEMESTER, 3 CREDITS

This class will be based upon student needs. *Prerequisite:* ART 152.

ART 470 Special Topics in Studio Art*

I SEMESTER, 3 CREDITS

ART 270, 370, 470 are special topics courses on subjects of special interest offered students at different levels in various areas of studio art.

ART 478 Photography VI*

I SEMESTER, 3 CREDITS

Further work in black and white or color; this class will be based upon student needs. *Prerequisite:* ART 374 or permission of the instructor.

ART 490 Independent Study

I SEMESTER, 3 CREDITS

Prerequisite: Consent of the chairperson.

Studio Thesis Courses

Required of all studio majors. Production of a mature body of work in preparation for the senior thesis exhibition. *Prerequisite: Three courses in the selected concentration or consent of the department chairperson and advisor.*

ART 492 Drawing Thesis

I SEMESTER, 3 CREDITS

ART 493 Sculpture Thesis

I SEMESTER, 3 CREDITS

ART 494 Painting Thesis

I SEMESTER, 3 CREDITS

ART 495 Printmaking Thesis

I SEMESTER, 3 CREDITS

ART 496 Ceramics Thesis

I SEMESTER, 3 CREDITS

ART 497 Photography Thesis

I SEMESTER, 3 CREDITS

ART 498 Digital Imaging Thesis

I SEMESTER, 3 CREDITS

The Major: Art History

The major in art history is designed for undergraduates interested in a humanistic education, as well as for those who may pursue careers in college-level teaching, research, museums and galleries, historic preservation, and related careers. The art history division emphasizes the historical, cultural, and formal contexts of art.

Art history majors begin study in introductory surveys of major artistic achievements from antiquity to the 21st century, and then deepen their knowledge in courses covering individual aspects and periods. Students are required to take at least one course in each of the following core areas: ancient, medieval, Renaissance, modern, and non-Western; one 400-level seminar; ARH 380 Interpretive Methods; and ARH 498, consisting of the preparation of the thesis in the senior year, which is the culmination of the art history program. In addition, students are encouraged to take a wide variety of art history electives and to develop programs related to individual interests and backgrounds.

Art history majors also are required to take two courses in studio art, so that they will experience and appreciate the methodology of the creative artist. Reading knowledge of German or French is required at the end of the sophomore year for those planning to study in Europe. Others must show this knowledge by the end of their junior year.

Suggested Sequence: Art History

			Credits
<i>Freshman Sem. 1</i>			
DWC	101	Devel of Western Civilization	5
ARH	106	Art History Survey	3
ART	101	Visual Design I	3
		Social Science Elective	3
<i>Freshman Sem. 2</i>			
DWC	102	Devel of Western Civilization	5
ARH	200	Ancient Classical Art	3
		Social Science Elective	3
		Free Elective	3
<i>Sophomore Sem. 1</i>			
DWC	201	Devel of Western Civilization	5
		Natural Science Elective	3
SRH	204	Medieval Art	3
		Free Elective	3
<i>Sophomore Sem. 2</i>			
DWC	202	Devel of Western Civilization	5
		Natural Science Elective	3
ARH	205	Italian Renaissance Art	3
		Free Elective	3
<i>Junior Sem. 1</i>			
ARH	209	Modern Art	3
		OR	
ARH	304	Amer and Euro Art Since 1945	3
LNG		Modern Language	3
THL		Theology Elective	3
ART		Studio Art Elective	3
ARH	380	Interpretive Methods in Art History	3
<i>Junior Sem. 2</i>			
LNG		Modern Language	3
PHL	407	Philosophy Elective*	3
MTH		Math Elective	3
ARH		Art History Elective (non-Western)	3
		Non-Departmental Elective	3
<i>Senior Sem. 1</i>			
ARH	498	Princ of Research	3
ARH		Art History Elective	3
THL		Theology Elective	3
		Non-Departmental Electives (2)	6
<i>Senior Sem. 2</i>			
PHL		Philosophy Elective (Ethics)	3
ARH		Art History Elective (400-level)	3
		Free Electives (3)	9

* Philosophy of Art recommended for majors when offered.

The Minor: Art History**Required Courses***

1. ARH 106 Art History Survey
2. One introductory studio art course from the following:
 - ART 101 Visual Design I
 - ART 102 Visual Design II
 - ART 111 Drawing I
 - ART 121 Sculpture I
 - ART 131 Painting I
 - ART 141 Monotype I
 - ART 151 Ceramics I
 - ART 171 Photography I
 - ART 242 Digital Imaging: Etching
 - ART 243 Digital Imaging: Screenprinting
3. At least four additional courses in art history. A basic minor must consist of one course in each of the following areas: ancient art, medieval art, Renaissance art, and modern art.

*All are one-semester, three-credit courses.

Any variation on the basic program should be worked out with the assigned art history advisor.

The Courses

ARH 103 Tribal and Village Art

I SEMESTER, 3 CREDITS (Fine Arts Core)

A survey of the arts of Africa, Oceania, North and South America, including works of the Eskimos, American Indians, and South Sea Islanders.

ARH 104 Asian Art

I SEMESTER, 3 CREDITS (Fine Arts Core)

A survey of the arts of India, China, and Japan presented in their historical and cultural context.

ARH 106 Art History Survey

I SEMESTER, 3 CREDITS (Fine Arts Core)

A survey of representative works of art from prehistoric times to the present.

ARH 107 The African-American Artist

I SEMESTER, 3 CREDITS (Fine Arts Core)

An introduction to African-American achievements in the visual arts, especially painting, from Colonial times to the present. *Same as BLS 107.*

ARH 108 History of Photography

I SEMESTER, 3 CREDITS (Fine Arts Core)

A history of the development of photography as an art, from its invention in 1839 to the present. *Same as AMS 108.*

ARH 109 The History of Prints

I SEMESTER, 3 CREDITS (Fine Arts Core)

A history of the printmaking media from the invention of paper in second century, A.D., China to the printmaking renaissance of contemporary America. *Prerequisite: ARH 106 suggested.*

ARH 110 Introduction to Museum Studies

I SEMESTER, 3 CREDITS

An introduction to the aims and methods of museums and curators with special emphasis upon study from original works, connoisseurship, and exposure to practical training. *Prerequisite: ARH 106 suggested.*

ARH 200 Art of the Ancient Classical World (Crete, Greece, and Rome)

I SEMESTER, 3 CREDITS (Fine Arts Core)

From Cycladic figures in the Aegean to the Parthenon in Athens; from the frescoes of Pompeii to Christian basilicas and the fall of Rome. *Prerequisite: ARH 106 suggested.*

ARH 204 Medieval Art and Architecture

I SEMESTER, 3 CREDITS (Fine Arts Core)

Christian, Jewish, and Islamic art in Europe and Byzantium; from the fall of the Jerusalem Temple in the first century to the flourishing of Gothic cathedrals in the 14th century. *Prerequisite: ARH 106 suggested.*

ARH 205 Italian Renaissance Art

I SEMESTER, 3 CREDITS (Fine Arts Core)

A sociocultural study of painting, sculpture, and architecture in Florence, Rome, and Venice from 1400-1600. *Prerequisite: ARH 106 suggested.*

ARH 207 American Art

I SEMESTER, 3 CREDITS (Fine Arts Core)

An introduction to American painting, sculpture, and architecture from Colonial times to the present. *Same as AMS 207. Prerequisite: ARH 106 suggested.*

ARH 209 Modern Art

I SEMESTER, 3 CREDITS (Fine Arts Core)

An introduction to the various movements and trends in painting, architecture, and sculpture, from the end of the 19th century to the present. *Prerequisite: ARH 106 suggested.*

ARH 211 The Arts of Southeast Asia

I SEMESTER, 3 CREDITS (Fine Arts Core)

A study of the varied artistic achievements of Southeast Asian countries from earliest times to the present. The arts of Burma, Cambodia, Indonesia, Laos, Thailand, and Vietnam will be examined in relation to their historical and cultural context.

ARH 270 Special Topics in Art History

I SEMESTER, 3 CREDITS

This course identifies subjects of special interest in art history taught at the introductory level.

ARH 301 Development of North American Architecture

I SEMESTER, 3 CREDITS (Fine Arts Core)

A study of North American architecture and the cultural context in which it was produced, from the 17th century to the present. *Same as AMS 301. Prerequisite: ARH 106 or permission of the instructor.*

ARH 302 Nineteenth Century European Art

I SEMESTER, 3 CREDITS (Fine Arts Core)

An exploration of major movements in European art, from the French Revolution to 1900. *Prerequisite:* ARH 106.

ARH 304 American and European Art Since 1945

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course will introduce major trends in Western, and especially American art post World War II. A variety of media will be addressed, including not only traditional visual arts, but a full range of new genres, as well. Social and cultural context for works of art and the shifts in style will be emphasized. *Same as AMS 304. Prerequisite:* ARH 106 or 209.

ARH 306 Baroque and Rococo Art

I SEMESTER, 3 CREDITS (Fine Arts Core)

The painting, sculpture, and architecture of 17th and 18th century Europe set in the context of patterns of patronage. *Prerequisite:* ARH 106 suggested.

ARH 310 Directed Studio

I SEMESTER, 3 CREDITS

Intensive focus on an issue within a particular medium through examination of works of art, followed by group or individual fabrication of a relevant object. *Prerequisite:* ART 101, ART 102, ARH 106, or permission of the instructor.

ARH 320 Women in the Arts, 1960-Present

I SEMESTER, 3 CREDITS (Fine Arts Core)

This course examines the contributions of women to the arts through an analysis of prominent and influential works in the visual, performing, and literary arts. Each artist's work is considered not only in and of itself, but also as representative of its media, and against a backdrop of historical, sociological, and political circumstances surrounding female achievement. *Same as TDF 320 and WMS 320.*

ARH 370 Intermediate Special Topics in Art History

I SEMESTER, 3 CREDITS

This course identifies subjects of special interest in art history at the intermediate level.

ARH 380 Interpretive Methods in Art History

I SEMESTER, 3 CREDITS

This course introduces art history majors to the variety of approaches to the interpretation of art, art history, and material culture. Required course for all art history majors in the first semester of the junior year; open to other advanced students in related fields or with significant art historical background.

ARH 450 Internship

I SEMESTER, 3 CREDITS

Offers advanced students academic credit for a supervised work and learning experience in an art-related organization. Students work with a faculty advisor and on-site supervisor to develop a series of structured assignments and prepare a final report. Interested students should contact the Art and Art History Department as early as possible. *Prerequisites:* Permission of instructor and department chair, junior or senior status, and major in studio art or art history.

ARH 470 Advanced Special Topics in Art History

I SEMESTER, 3 CREDITS

This course identifies subjects of special interest in art history taught at the advanced level.

ARH 490 Independent Study I

I SEMESTER, 3 CREDITS

Prerequisite: Consent of the chairperson.

ARH 498 Principles of Research

I SEMESTER, 3 CREDITS

(Required of senior art history majors.) In readings and seminar discussions, students learn bibliographical resources and utilize critical methodologies of the art historian in order to research and write a thesis.

Asian Studies

Contact Information

Phone: 401.865.2520

Fax: 401.865.2410

Location: Hunt/Cavanagh Hall 202B

The Faculty

Professors

Ann W. Norton, Ph.D. (Art History), *Advisor*

Charlotte G. O'Kelly, Ph.D. (Sociology)

Associate Professors

Nazma Latif-Zaman, Ph.D. (Economics)

Susan K. McCarthy, Ph.D. (Political Science)

James H. McGovern, Ph.D. (History)

Matthew S. Pugh, Ph.D. (Philosophy)

Assistant Professors

Margaret M. Manchester, Ph.D. (History)

Donna T. McCaffrey, Ph.D. (History)

Richard J. Murphy, Ph.D. (English)

The Minor

Eighteen (18) credit hours (six courses, of which at least one must be at the 300 or 400 level) are required for the Asian studies minor.

The following distribution is suggested:

1. 3 credits in Asian history or Asian art history
2. 3 credits in social sciences of Asia
3. 12 credits drawn from any combination of courses approved by the program

Because Asian studies tends to be interdisciplinary by nature, courses in the program are listed separately under departments. Course offerings can be expanded through the use of special topics within relevant departments, at the discretion of the instructor.

Participants will be encouraged, but not required, to study basic Chinese, Japanese, or Arabic, credit for which may be transferred in from other institutions or schools of continuing education. The credits will be counted toward the minor.

The advisor of the Asian Studies Program will be responsible for verifying student compliance with the requirements of the minor.

The Courses

Art History

ARH 104 Asian Art

ARH 211 The Arts of Southeast Asia

ARH 470 Special Topics in Art History

Asian Studies

AST 200 Asian Perspectives

I SEMESTER, 3 CREDITS

Traditional and modern Asian cultures will be studied from various perspectives. A team-taught interdisciplinary course that surveys historical development, the arts, religion, economics, and politics of such countries as India, Tibet, China, Korea, Japan, and countries of Southeast Asia. Course helps students gain appreciation for the rich historical and cultural diversity of Asia and of its continuing importance in the world today.

AST 480 Asian Perspective Seminar

I SEMESTER, 3 CREDITS

Topics discussed vary each semester. Each interdisciplinary seminar examines one Asian country from various perspectives. An introduction to the early history of the culture in relation to its neighbors will serve as a background. Considers the arts, economics, history, philosophy, political science, and other social sciences, and studies how these disciplines have impacted the people of the country. Emphasis placed on contemporary culture, including the "diaspora."

Economics

ECN 335 The Economics of Developing Nations

English

ENG 201 Readings in Literature: Vietnam

History

HIS 301 History of American Involvement in Vietnam

HIS 345 History of the Modern Middle East

HIS 431 East Asia: Tradition and Transformation

HIS 432 Modern East Asia

Political Science

PSC 320 Comparative Asian Government and Politics

PSC 321 Chinese Politics

PSC 329 Middle Eastern Politics

PSC 361 International Politics of the Middle East

Philosophy

PHL 325 Asian Philosophy

Biology

Contact Information

Phone: 401.865.2585
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 Location: Sowa Hall 236

The Faculty

Professors

John H. Costello, Ph.D.
 Robert I. Krasner, Ph.D., Emeritus
 Craig B. Wood, Ph.D.

Associate Professors

Elisabeth Arévalo, Ph.D.
 Carol B. Crafts, Ph.D.
 Patrick W. Ewanchuk, Ph.D.
 Rev. Mark D. Nowel, O.P., Ph.D.
 Charles R. Toth, Ph.D., *Chairperson*
 Yinsheng Wan, Ph.D.
 Robert M. Zarcaro, Ph.D.

Assistant Professors

Rev. Nicanor Austriaco, O.P., Ph.D.
 Maia F. Bailey, Ph.D.
 Joseph A. DeGiorgis, Ph.D.

The Program

The goal of the biology curriculum is to make students aware of the structure, function, and evolution of life as manifested on the cellular, organismic, and population levels through lecture, formal laboratories, and experiential education (e.g. research and internship).

The faculty of the Department of Biology stress the conceptual approach in course content. A core program is required for all biology majors, which relates the content of the biology courses to the scientific background obtained in chemistry, mathematics, and physics, and provides the opportunity for a wide choice of biology and other elective courses.

Completion of the core meets the usual science requirements demanded for admission to both medical and other professional schools specializing in the health sciences (i.e. veterinary, physical therapy, etc.) and to graduate schools offering advanced degrees in the various research-oriented biological specialties.

The Department of Biology offers a combined degree program with the New England College of Optometry. This

program allows completion of the B.A. or B.S. degree in biology and the doctor of optometry degree in seven years. Students may prepare for careers in teaching at the secondary level by taking additional courses elected from the offerings in the Department of Education and upon completion, will meet the requirements of the Rhode Island Department of Education and 47 other states for certification for secondary school biology teachers.

The Department of Biology offers supporting courses for the Health Policy and Management Program.

Also, students have ample opportunity for experiential learning through faculty-directed laboratory and field research and internships. One such opportunity is our affiliation with the Organization for Tropical Studies (OTS).

Organization for Tropical Studies

The Organization for Tropical Studies (OTS) is a nonprofit consortium that includes 63 universities and research institutions from the United States, Latin America, and Australia, in collaboration with the Universidad de Costa Rica. The main interest of the OTS is to strengthen education and research in tropical biology. Founded in 1963, the organization provides leadership in education, research, and the responsible use of natural resources in the tropics. To address this mission, OTS conducts graduate and undergraduate education, facilitates research, participates in tropical forest conservation, maintains three biological stations in Costa Rica (La Selva, Palo Verde, and Las Cruces), and conducts environmental education programs.

The OTS, in partnership with Duke University, offers semester and summer programs for undergraduate students interested in field biology. The Costa Rica semester and summer programs utilize all three OTS field stations as well as other Costa Rican sites, allowing direct study of a wide range of tropical ecosystems and habitats. Graduates of an OTS undergraduate program will be well prepared for advanced studies in tropical biology and resource management.

The program is administered by Duke University and enrollment is limited. Further details are available by calling the Department of Biology or the OTS Web site at www.ots.duke.edu/en/education/undergraduate.shtml.

Bachelor of Arts Degree

The B.A. program allows students sufficient flexibility to explore their breadth of interests and still acquire an in-depth knowledge of the sciences.

In addition to the College's general degree requirements, the courses required for the B.A. degree are two semesters of General Biology and General Chemistry, one semester of Organic Chemistry, Physics, Calculus, and Introduction to Cell and Molecular Genetics, plus seven (7) additional courses — three (3) biology courses with laboratories (4 credits each) and four (4) approved science courses above the introductory level elected from biology, chemistry, computer science, geology, mathematics, and physics (including EPS 102). [MTH 110, 131, 132 allowed.]

It is strongly recommended that students in the B.A. program participate in some form of experiential education, e.g., internships, research (on or off campus) or attend a field school for at least one summer.

Suggested Sequence: Biology (B.A.)

			Credits
<i>Freshman Sem. 1</i>			
DWC	101	Devel of Western Civilization	5
BIO	103	General Biology I*	4
CHM	101	General Chemistry I*	4
		Free Elective	3
<i>Freshman Sem. 2</i>			
DWC	102	Devel of Western Civilization	5
BIO	104	General Biology II*	4
CHM	102	General Chemistry II*	4
		Free Elective	3
<i>Sophomore Sem. 1</i>			
DWC	201	Devel of Western Civilization	5
MTH		Calculus *	3
CHM	201	Organic Chemistry I *	4
		Free Elective	3
<i>Sophomore Sem. 2</i>			
DWC	202	Devel of Western Civilization	5
BIO	200	Cell Bio & Mol. Genetics *	3
		Free Elective*	3-4
		Free Elective	3
<i>Junior Sem. 1</i>			
BIO		Biology Elective*	4
EPS	101	General Physics I *	4
		Free Elective	3
PHL		Philosophy Elective	3
THL		Theology Elective	3
<i>Junior Sem. 2</i>			
BIO		Biology Elective*	4
		Science Elective*	3 - 4
PHL		Philosophy Elective	3
		Social Science Elective	3
THL		Theology Elective	3
<i>Senior Sem. 1</i>			
BIO		Biology Elective*	4
		Science Elective*	3-4
		Social Science Elective	3
		Free Electives (2)	6
<i>Senior Sem. 2</i>			
		Science Elective*	3-4
		Science Elective*	3-4
		Fine Arts Elective	3
		Free Electives (2)	6

* B.A. requirement

Bachelor of Science Degree

The B.S. program is designed to meet the needs of students interested in pursuing graduate study or research in the biological sciences, or careers in the health professions or other science related fields.

In addition to the College's general degree requirements, the courses required for the B.S. degree are *two semesters* of General Biology, General Chemistry, Calculus, Organic Chemistry, General Physics, and *one semester* of Introduction to Cell and Molecular Genetics, plus five (5) additional biology courses, of which three (3) must be laboratory courses (i.e., 4 credit hours).

It is *strongly recommended* that students in the B.S. program participate in some form of experiential education, e.g., internships, research (on or off campus) or attend a field school for at least one summer.

Premedical Sciences Preparation

The B.S. and B.A. degree programs meet the science requirements demanded for admission to professional schools specializing in the health sciences such as medicine, dentistry, optometry, and veterinary medicine. However, some students whose interests lie in other areas may elect to major in a non-science department while still successfully completing the prerequisites for medical, dental, veterinary, or optometry school admission. Students who are planning for a career in the medical sciences should consult with the advisor for health professions early in their freshman year. For more information, please refer to the Premedical Sciences and Health Professions Program section of this catalog.

Suggested Sequence: Biology (B.S.)

			Credits
<i>Freshman Sem. 1</i>			
DWC	101	Devel of Western Civilization	5
BIO	103	General Biology I*	4
CHM	101	General Chemistry I*	4
MTH	109	Calculus I*	3
<i>Freshman Sem. 2</i>			
DWC	102	Devel of Western Civilization	5
BIO	104	General Biology II*	4
CHM	102	General Chemistry II*	4
MTH	110	Calculus II*	3
<i>Sophomore Sem. 1</i>			
DWC	201	Devel of Western Civilization	5
BIO		Biology Elective*	4
CHM	201	Organic Chemistry I*	4
		Free Elective	3-4
<i>Sophomore Sem. 2</i>			
DWC	202	Devel of Western Civilization	5
BIO	200	Cell Bio & Mol. Genetics*	3
CHM	202	Organic Chemistry II*	4
		Free Elective	3-4
<i>Junior Sem. 1</i>			
BIO		Bio Elective*	4
EPS	101	General Physics I*	4
		Free Elective	3
PHL		Philosophy Elective	3
THL		Theology Elective	3
<i>Junior Sem. 2</i>			
BIO		Biology Elective*	4
EPS	102	General Physics II*	4
PHL		Philosophy Elective	3
		Social Science Elective	3
THL		Theology Elective	3
<i>Senior Sem. 1</i>			
BIO		Biology Elective*	3-4
		Social Science Elective	3
		Free Electives (3)	9
<i>Senior Sem. 2</i>			
BIO		Biology Elective*	3-4
		Fine Arts Elective	3
		Free Electives (3)	9

* B.S. requirement

Biology electives may be from any of the following:

BIO 201	Comparative Anatomy
BIO 205	Human Anatomy
BIO 209	Introductory Botany
BIO 210	Field Botany
BIO 215	Histology and Cytology
BIO 220	Introduction to Tropical Biology
BIO 230	Invertebrate Zoology
BIO 240	Marine Biology
BIO 308	Modern Genetics
BIO 310	Evolution
BIO 320	Developmental Biology
BIO 350	Animal Behavior
BIO 360	Neurobiology
BIO 395/396	Research*
BIO 401	Ecology
BIO 403	Plant Physiology
BIO 405	Physiology
BIO 407	Microbiology
BIO 410	Electron Microscopy
BIO 412	Microbial Physiology
BIO 413	Cell Signaling
BIO 416	Immunology
BIO 418	Biotechnology
BIO 450	Internship*
BIO 495/496	Research*
CHM 309	Biochemistry (B.S. program only)
PSY 315	Human Neuropsychology

All biology majors must successfully complete at least three courses, which include a lab component. Students pursuing the B.S. degree must complete an additional two courses from this list.

* Only one of these courses will count as a biology elective, but additional courses under these numbers will count as free electives.

Biology/Secondary Education (B.S.) Requirements:

1 year	General Biology	BIO 103-104
1 year	General Chemistry	CHM 101-102
1 year	Organic Chemistry	CHM 201-202
1 year	General Physics	EPS 101-102
1 year	Calculus	MTH 109-110
1 semester	Cell Bio & Mol Genetics	BIO 200
5 semesters	of biology electives, three of which must be lab courses	

Suggested Sequence: Biology/Secondary Education (B.S.)

Freshman Sem. 1			Credits
DWC 101	Devel of Western Civilization		5
BIO 103	General Biology I*		4
CHM 101	General Chemistry I*		4
MTH 109	Calculus I*		3
Freshman Sem. 2			
DWC 102	Devel of Western Civilization		5
BIO 104	General Biology II*		4
CHM 102	General Chemistry II*		4
MTH 110	Calculus II*		3
Sophomore Sem. 1			
DWC 201	Devel of Western Civilization		5
CHM 201	Organic Chemistry I*		4
EDU 201	Educational Psychology		3
BIO	Biology Elective		4
Sophomore Sem. 2			
DWC 202	Devel of Western Civilization		5
BIO 200	Cell Bio & Mol. Genetics*		3
CHM 202	Organic Chemistry II*		4
EDU 206	Principles of Secondary Education		3
EDU 206L	Prin of Secondary Education Lab		1
Junior Sem. 1			
BIO	Biology Elective w/Lab*		4
EPS 101	General Physics I*		4
EDU 401	Educational Measurement		3
EDU 401L	Educational Measurement Lab		1
PHL	Phil Elective (Ethics)		3
	Social Science Elective		3
Junior Sem. 2			
BIO	Biology Elective w/Lab*		4
EPS 102	General Physics II*		4
	Social Science Elective		3
EDU 303	Child w Spec. Needs in Reg. Class		3

EDU 303L	Child w Spec. Needs in Reg. Class Lab	1			
THL	Theology Elective	3			
<i>Senior Sem. 1</i>					
BIO	Biology Elective	3			
BIO	Biology Elective w/Lab	3-4			
EDU 412	Teaching Science in Sec Schools	3			
EDU 412L	Teach Science in Sec School Field Exp	1			
PHL	Philosophy Elective	3			
	Fine Arts Elective	3			
<i>Senior Sem. 2</i>					
THL	Theology Elective	3			
EDU 301	Foundations of Education	3			
EDU 450	Student Teaching	9			
*Required for the B.S. degree and certification in most other states as approved by the Interstate Certification Compact. Ecology is strongly recommended as one of these electives.					
* Biology/Secondary Education (B.A.) Requirements:					
1 year General Biology BIO 103-104					
1 year General Chemistry CHM 101-102					
1 year Organic Chemistry CHM 201-202					
1 year General Physics EPS 101-102					
1 semester Calculus MTH 109					
1 semester Cell Bio & Mol Genetics BIO 200					
3 semesters of biology elective, 1 of which must be a lab course					
Suggested Sequence: Biology/Secondary Education (B.A.)					
<i>Freshman Sem. 1</i>					
					Credits
DWC 101	Devel of Western Civilization	5			
BIO 103	General Biology I	4			
CHM 101	General Chemistry I	4			
MTH 109	Calculus I	3			
<i>Freshman Sem. 2</i>					
DWC 102	Devel of Western Civilization	5			
BIO 104	General Biology II	4			
CHM 102	General Chemistry II	4			
	Free Elective	3			
<i>Sophomore Sem. 1</i>					
DWC 201	Devel of Western Civilization	5			
CHM 201	Organic Chemistry I	4			
EDU 201	Educational Psychology	3			
	Science Elective	3-4			
<i>Sophomore Sem. 2</i>					
DWC 202	Devel of Western Civilization	5			
BIO 200	Cell Bio & Molecular Genetics	3			
CHM 202	Organic Chemistry II	4			
EDU 206	Principles of Secondary Education	3			
EDU 206L	Principles of Secondary Education Lab	1			
<i>Junior Sem. 1</i>					
BIO 401	Ecology	4			
EPS 101	General Physics I	4			
EDU 401	Educational Measurement	3			
EDU 401L	Educational Measurement Lab	1			
PHL	Phil Elective (Ethics recommended)	3			
	Social Science Elective	3			
<i>Junior Sem. 2</i>					
BIO	Biology Elective w/Lab*	4			
EPS 102	General Physics II	4			
	Social Science Elective	3			
EDU 303	Child w/Spec. Needs in Reg. Class	3			
EDU 303L	Child w/Spec. Needs in Reg. Class Lab	1			
THL	Theology Elective	3			
<i>Senior Sem. 1</i>					
BIO 405	Physiology	4			
EDU 412	Teaching Science in Sec. Schools	3			
EDU 412L	Teaching Science in Sec. School Field Exp	1			
	Fine Arts Elective	3			
	Free Elective	3			
PHL	Philosophy Elective	3			
<i>Senior Sem. 2</i>					
THL	Theology Elective	3			
EDU 301	Foundations of Education	3			
EDU 450	Student Teaching	9			

Combined Degree Program with New England College of Optometry

This program is designed for the highly motivated student with a professional goal in optometry. It allows for completion of the B.A. or B.S. degree in biology and the O.D. degree (doctor of optometry) in seven years, rather than the usual eight.

The first three years at Providence College offer a blend of liberal arts, basic, and biological sciences, which will prepare students for professional study. The next four years at New England College of Optometry (NECO) provide the course work required to complete the Providence College baccalaureate degree as well as the professional training required for the doctoral degree in optometry.

The combined program is designed for the academically outstanding student, especially in math and science, who has a strong and realistic motivation toward the optometric profession. All applicants are interviewed by representatives of Providence College and the New England College of Optometry.

Suggested Sequence: Biology/Optometry (B.A.)

Freshman Sem. 1			Credits
DWC	101	Devel of Western Civilization	5
MTH	109	Calculus I	3
CHM	101	General Chemistry I	4
BIO	103	General Biology I	4

Freshman Sem. 2			Credits
DWC	102	Devel of Western Civilization	5
MTH	110	Calculus II	3
CHM	102	General Chemistry II	4
BIO	104	General Biology II	4

Sophomore Sem. 1			Credits
DWC	201	Devel of Western Civilization	5
CHM	201	Organic Chemistry I	4
BIO		Biology Elective	4
		English or Free Elective	3

Sophomore Sem. 2			Credits
DWC	202	Devel of Western Civilization	5
BIO	200	Cell Biology & Molecular Genetics	3
EPS	101	General Physics I	4
PHL		Philosophy/Ethics	3

Junior Sem. 1

EPS	102	General Physics II	4
BIO	407	Microbiology	4
PHL		Philosophy Elective	3
PSY		Psychology Elective	3
THL		Theology Elective	3

Junior Sem. 2

BIO		Biology Elective	4
		Science Elective (Statistics recommended)	3
		Social Science Elective	3
		Fine Arts Elective	3
THL		Theology Elective	3
		(OAT - February Exam Administration)	

Senior

First Year at NECO

Science Elective*

*Credits to complete the B.A. degree in biology will be met from among the first-year courses at NECO including Systems Physiology, Microbiology, Immunology, Genetics, Neuroanatomy, Cellular Physiology/Biochemistry/Molecular Pathology I and II.

Suggested Sequence: Biology/Optometry (B.S.)*Freshman Sem. 1*

			Credits
DWC	101	Devel of Western Civilization	5
MTH	109	Calculus I	3
CHM	101	General Chemistry I	4
BIO	103	General Biology I	4

Freshman Sem. 2

DWC	102	Devel of Western Civilization	5
MTH	110	Calculus II	3
CHM	102	General Chemistry II	4
BIO	104	General Biology II	4

Sophomore Sem. 1

DWC	201	Devel of Western Civilization	5
CHM	201	Organic Chemistry I	4
BIO		Biology Elective	4
		English or Free Elective	3

Sophomore Sem. 2

DWC	202	Devel of Western Civilization	5
CHM	202	Organic Chemistry II	4
BIO	200	Cell Biology & Molecular Genetics	4
EPS	101	General Physics I	4

Junior Sem. 1

EPS	102	General Physics II	4
BIO	407	Microbiology	4
PHL		Philosophy/Ethics Elective	3
PSY		Psychology Elective	3
THL		Theology Elective	3

Junior Sem. 2

BIO		Biology Elective	4
THL		Theology Elective	3
		Fine Arts Elective	3
		Social Science Elective	3
PHL		Philosophy Elective	3
		(OAT - February Exam Administration)	

*Senior***First Year at NECO**

Biology Electives* (2)

The Minor in Biology/Natural History*Required Courses*

1. Eight credits: General Biology 103 - 104.
2. Three (3) courses must be taken from the following:
 - BIO 201 Comparative Anatomy, 3 credits
 - BIO 209 Introduction to Botany, 4 credits
 - BIO 210 Field Botany, 4 credits
 - BIO 220 An Introduction to Tropical Biology, 4 credits
 - BIO 230 Invertebrate Zoology, 4 credits
 - BIO 240 Marine Biology, 4 credits
 - BIO 310 Evolution, 3 credits
 - BIO 350 Animal Behavior, 4 credits
 - BIO 401 Ecology, 4 credits

*Credits to complete the B.S. degree in biology will be met from among the first-year courses at NECO including Systems Physiology, Microbiology, Immunology, Genetics, Neuroanatomy, Cellular Physiology/Biochemistry/Molecular Pathology I and II.

The Courses

BIO 103 General Biology I

I SEMESTER, 4 CREDITS (Natural Science Core*)

Introductory course intended for science majors. Cell structure, function, and energetics are considered from the molecular and chemical viewpoints. The characteristics of the gene and reproduction are introduced as well as cell differentiation, morphogenesis, and growth. Laboratory work consists of manual and visual experience with selected areas of the topics listed. *Prerequisite: Chairperson permission required for non-science majors.*

BIO 104 General Biology II

I SEMESTER, 4 CREDITS (Natural Science Core*)

Represents the second semester of the introductory biology course intended for science majors. Materials covered include the biology of populations and communities; including topics in evolution and their ecological interrelationships. Laboratory work consists of manual and visual experience with these topics. *Prerequisites: BIO 103; chairperson permission required for non-science majors.*

* See page 43-44 for specific policies related to the Natural Science Core requirement.

BIO 121 Environmental Biology

I SEMESTER, 3 CREDITS (Natural Science Group II Core)

Information is necessary in order to understand and act upon problems associated with overpopulation, resource depletion, air and water pollution, acid rain, ozone depletion, desertification, or nuclear wastes. Aims to develop a perspective based on fundamental properties of mass and energy flow through ecosystems. Intended for non-science majors only.

BIO 122 Human Biology

I SEMESTER, 3 CREDITS (Natural Science Group II Core)

Intended to present the principles of human biology designed to promote the understanding of the body. Subject matter will provide students with the ability to make informed decisions in their lives. The course will present cell theory, genetics, evolution, and human ecology. An analysis of the organ systems of the human body and their diseases are discussed.

BIO 124 Ethnobotany, the Study of the Plants We Use

I SEMESTER, 3 CREDITS (Natural Science Group II Core)

This course will examine the intimate relationship between humans and plants. Students will explore the ori-

gin, history, and use of food plants, medicinal plants, and ornamental plants. These plants will be placed not only in a cultural context, but in a biological context as well. A component of this course is occasional field trips. This course is intended for non-science majors.

BIO 125 Microbes and Man

I SEMESTER, 3 CREDITS (Natural Science Group II Core)

This course considers the microbial world and its interaction with human life. Although the beneficial aspect of microbes is considered, the emphasis is on the role of microbes as causative agents of disease from a public health point of view. Topics include the biology of microbes, a survey of major microbial diseases, antibiotic resistance, biological warfare and terrorism, and immunization.

BIO 126 Evolution and Modern Biology

I SEMESTER, 3 CREDITS (Natural Science Group II Core)

An explanation of evolution at the non-technical level: DNA, proteins, gene mutation, variation, natural selection, and speciation. Digressions include viruses, cancer, genetic engineering, and topical issues. In the second half, macroevolutionary patterns from the history of life on Earth focus on human ancestry but with attention to diversity and extinction events in other kinds of organisms through time.

BIO 127 Genes and Gender

I SEMESTER, 3 CREDITS (Natural Science Group II Core)

Explores the role of genes in the construction of gender stereotypes. A foundation in both classical and molecular genetics will be laid as the basis for consideration of the extent to which gender is determined by genes and environmental influences. Intended for non-science majors. Open to science majors as a free elective only, with permission of the instructor. *Same as WMS 127.*

BIO 200 Cell Biology and Molecular Genetics

I SEMESTER, 3 CREDITS

This course provides an introduction to cell biology and molecular genetics and is intended for sophomore biology majors. The course focuses on four major areas: fine structure of cells, intra- and intercellular communication, energetics, and the molecular organization and transfer of genetic information. Experimental design, methodology, and current biotechnological applications will be considered. *Prerequisites: BIO 103-104.*

BIO 201 Comparative Anatomy

I SEMESTER, 4 CREDITS

A lecture and laboratory course emphasizing evolution of general body plan, adult anatomy, and organ system homology. Laboratory dissection includes cats, sharks, and others, plus demonstration specimens. Although premedical students often have an interest in the course, it is intended as a general gateway for all further studies of vertebrate biology without special emphasis on human anatomy or clinical application. *Prerequisites:* BIO 103-104.

BIO 205 Human Anatomy

I SEMESTER, 4 CREDITS

Human organ systems from an integrated and functional perspective, especially for students preparing for non-medical-school or allied health programs. The laboratory includes cat dissection and human anatomical models as well as latest software technology. *Prerequisites:* BIO 103-104.

BIO 209 Introductory Botany

I SEMESTER, 4 CREDITS (Natural Science Group II Core)

A survey of the structure, function, and evolutionary relationships of the major plant divisions. Three lectures and one laboratory (for which field trips may be substituted). *Prerequisite:* Permission of the instructor.

BIO 210 Field Botany

I SEMESTER, 4 CREDITS (Natural Science Group II Core)

A course involving the collection, identification, and ecological relationships of plants as observed in nature. One lecture and one six-hour field trip/week. *Prerequisite:* Permission of the instructor.

BIO 215 Histology and Cytology

I SEMESTER, 4 CREDITS

Study of the microanatomy of animal cells, tissues, and select organs/organ systems. The correlation between structure and function is an overriding theme; genetic, molecular and developmental aspects of cells and tissues also will be addressed. Students will learn to recognize and identify cells, tissues and organs, and will refine their light microscopy skills in the lab. *Prerequisites:* BIO 103-104

BIO 220 An Introduction to Tropical Biology

I SEMESTER, 4 CREDITS (Natural Science Group II Core)

This course familiarizes students with terrestrial and ma-

rine tropical biology. A nine-day trip to a tropical destination provides extensive field experience. The trip is a required component of the course. Students are charged room/board and airfare in addition to their tuition. *Prerequisites:* At least one semester of biology and permission of the instructor.

BIO 225 Symbiosis

I SEMESTER, 3 CREDITS

This course examines a broad spectrum of symbiotic associations – types and characteristics of symbioses, their integrated and interdependent development, biochemistry, physiology, genetics, ecology, and evolution will be considered. *Prerequisites:* BIO 103-104.

BIO 230 Invertebrate Zoology

I SEMESTER, 4 CREDITS

More than 95 percent of the animals on the planet earth do not have backbones – they are invertebrates. This course investigates principles of animal design and patterns of phylogenetic relationships among the major animal phyla. The course will combine field and laboratory studies of animal structure and function. *Prerequisites:* BIO 103-104 or permission of the instructor.

BIO 240 Marine Biology

I SEMESTER, 4 CREDITS

An investigation of marine communities and the important physical and chemical variables influencing marine organisms. Lecture topics will include: effects of the aquatic environment in terms of body form, life history, and ecology; the relationship between physical and biological structure; nutrient cycling; and oceanic productivity. Course combines field and laboratory study at the ecosystem and individual organism level. *Prerequisites:* BIO 103-104 or permission of the instructor.

BIO 308 Modern Genetics

I SEMESTER, 4 CREDITS

Presents the basic principles of classical and molecular genetics with an emphasis on experimental design, data analysis, and problem solving. Recent advances in molecular and human genetics will be discussed with the use of research papers from the literature. Laboratory exercises will introduce students to the basic techniques and experimental protocols of molecular biology and genetics. *Prerequisite:* BIO 200.

BIO 310 Evolution

I SEMESTER, 3 CREDITS

Designed as an introduction to Darwinian evolutionary theories. Topics include the rise of evolutionary biology, molecular and Mendelian genetics, evidence for evolution, natural selection, molecular evolution, adaptation, macroevolutionary change, speciation, fossil record, biogeography, and classification. Intended for biology majors and minors. *Prerequisites: BIO 103-104 or permission of the instructor.*

BIO 320 Developmental Biology

I SEMESTER, 4 CREDITS

Designed to familiarize students with the principles of development in biological systems. In lectures and laboratories, the process of the emergence of mature from less mature stages in the living organism is considered at various levels: molecular, cellular, tissue, and organismal. Emphasis on the description and experimental bases of developmental processes. *Prerequisite: BIO 200.*

BIO 330 Comparative Biomechanics

I SEMESTER, 4 CREDITS

The bewildering diversity of living forms on earth has evolved in accordance with basic physical principles. This course examines the physical rules affecting potential designs of living organisms. Course topics include essential size-shape patterns and the mechanics of walking, running, flying, and swimming. Combines field and laboratory studies of animal structure and function.

Prerequisites: BIO 103-104 or permission of the instructor.

BIO 350 Animal Behavior

I SEMESTER, 4 CREDITS

Animal behavior investigates the mechanisms, ecology, and evolution of actions by animals as well as historical and current perspectives on the study of animal behavior. Emphasis is placed on discussing proximate and ultimate questions about behavior. The laboratory provides instruction on methods for conducting behavioral research, plus field trips. *Prerequisites: BIO 103-104.*

BIO 360 Neurobiology

I SEMESTER, 4 CREDITS

Focus on the biology of neurons—their structure, biology, signaling mechanisms, and how they are affected by psychoactive drugs and disease. An emphasis will be placed upon the cellular and molecular approaches to neurobiology. The laboratory will examine the regulation of neu-

ronal activity and development through the use of computer simulations, animal models, and modern research methods. *Prerequisite: BIO 200.*

BIO 395 - BIO 396 Research

2 SEMESTERS, 3 CREDITS EACH

The investigation of special problems in biology. The widest freedom of choice of a problem, compatible with the personnel and physical facilities of the department, will be allowed the student. With the permission of the department chairperson, 395 and/or 396 may be elected by highly qualified biology majors on a pass/fail basis only. *Prerequisite: Permission of instructor.*

BIO 401 Ecology

I SEMESTER, 4 CREDITS

An introductory course designed to familiarize students with the principles and scope of ecology. The ecosystem approach is emphasized. Some consideration is given to environmental pollution and conservation of natural resources. Field trips are designed to acquaint students with the various habitats present in Rhode Island and the neighboring states. *Prerequisites: BIO 103-104 and permission of the instructor.*

BIO 403 Plant Physiology

I SEMESTER, 4 CREDITS

Designed to provide students with an overview of the functional aspects of higher plants: photosynthesis, nutrition, water balance, growth, developmental, and physiological responses to the environment. Emphasis is placed on emerging research and its applications. The laboratory is designed to acquaint students with current experimental techniques in this field. *Prerequisites: BIO 103-104.*

BIO 405 Physiology

I SEMESTER, 4 CREDITS

Covers the basic principles and mechanisms of animal physiology. Emphasis is placed upon nervous systems, sensory mechanisms, endocrine systems, intracellular signaling mechanisms, and muscle contractility. Homeostatic mechanisms and the systems responsible for supply of the internal environment are also discussed. The laboratory consists of mainly experimental procedures of cellular physiology. *Prerequisite: BIO 200 or permission of the instructor.*

BIO 407 Microbiology

I SEMESTER, 4 CREDITS

A lecture-laboratory course covering the biology of microorganisms with emphasis on bacteria and viruses. Microbes are important research tools in many areas of cellular biology, as well as in microbiology per se. Lectures and laboratory exercises will be devoted to a survey of the microbial world, bacterial metabolism and growth, viruses, bacterial genetics, and host-parasite relationships as applied to man. *Prerequisite:* BIO 200.

BIO 410 Electron Microscopy

I SEMESTER, 4 CREDITS

Students are required to become proficient in the basic preparation techniques of biological materials for transmission and scanning electron microscopy, in the theory and operation of the scanning electron microscope (SEM) and the transmission electron microscope (TEM), and in the documentation of data derived from these instruments. *Prerequisite:* Permission of the instructor.

BIO 412 Microbial Physiology

I SEMESTER, 4 CREDITS

A study of the physiological mechanisms of bacteria including nutrition, fermentation, metabolism, and nucleic acid synthesis. Emphasis is placed on the synthesis and degradation of bacterial bio-polymers. Some emphasis is placed on environmental changes caused by prokaryotic cells. *Prerequisite:* BIO 200.

BIO 413 Cell Signaling

I SEMESTER, 3 CREDITS

Biological systems are subject to regulation and many recent advances have delineated the molecular mechanisms underlying this regulation. This course is designed to provide coverage across a broad spectrum of disciplines including genetics, developmental biology, neurobiology, immunology, physiology, and cell biology. Class discussions will focus on readings from the recent scientific literature. *Prerequisites:* BIO 200, CHM 201-202. CHM 309 recommended.

BIO 416 Immunology

I SEMESTER, 4 CREDITS

Study of how humans and other animals defend themselves against invasion by other organisms. Subjects include the fundamental aspects of innate, humoral, and cell-mediated immunity. Emphasis on the molecular and cellular aspects of immunology. Experiments that are ger-

mane to the main topics will be discussed. *Prerequisite:* BIO 200.

BIO 418 Biotechnology

I SEMESTER, 4 CREDITS

This integrated lecture/laboratory course is designed to introduce the subject of biotechnology and current laboratory techniques, as applied to recombinant DNA technology, microbiology, and immunology including electrophoresis, DNA fingerprinting, Southern blot, restriction enzyme mapping, and transformation. Additionally, cell culture, nano-technology, siRNA, DNA microarray, FACS analysis, GMO and Ag-biotechnology, stem cells, and bioethics will be included. *Prerequisite:* Permission of the instructor.

BIO 450 Internship

I SEMESTER, 3 CREDITS

Offers majors an opportunity to explore practical applications of biological principles in the workplace. Students prepare a proposal, obtain site supervisor and department chair approval, and complete an Internship Learning Agreement prior to registration. Minimally, students spend 8-12 hours per week on site, maintain a journal, and complete a paper integrating academic and experiential components. *Pass/fail basis only.*

BIO 475 Advanced Topics Seminar

I SEMESTER, 3-4 CREDITS

Critically examines an advanced topic of contemporary interest to biology students and faculty. Content is variable. The course is offered after consideration by the department faculty and at the discretion of the chair. Junior and senior biology majors will be given preference. *Prerequisite:* At the discretion of the instructor. 4 credit option includes lab component.

BIO 495 - BIO 496 Research

2 SEMESTERS, 3 CREDITS EACH

Continuation of 395 and 396, culminating in a documented report of progress. With the permission of the department chairperson, 495 and/or 496 may be elected by highly qualified biology majors on a pass/fail basis only. *Prerequisites:* BIO 395 and BIO 396.