Sophomore standing is required. Prerequisites: BIOL 051 and BIOL 061. Recommended: liberal arts. In addition to lecture, one-three hour laboratory per week.

Emphasis of study is heritable variations and their relation to structure, function and development, and how neurons work together to retrieve and process information and respond accordingly, with thorough discussions of sensory and motor systems and a brief review of more complex brain functions, such as emotions, speech and language, and memory. Prerequisites: BIOL 101 and CHEM 121.

BIO 124. Cancer Biology. 4 Units.
The course examines the morphological and molecular events that accompany the changes of a normal mammalian cell into a cancer cell, with an emphasis on the major pathways that affect cell growth and division, cell communication, cell death and metastasis.

BIO 126. Neurobiology. 4 Units.
This course focuses on the molecular and cell biology of neuronal function and development, and how neurons work together to retrieve and process information and respond accordingly, with thorough discussions of sensory and motor systems and a brief review of more complex brain functions, such as emotions, speech and language, and memory. Prerequisites: BIOL 101 and BIOL 061.

BIO 128. Histology. 4 Units.
A study of the tissues which comprise the organs of the body is the focus. This course is limited to human tissues. Thin sections of organs will be studied and their structure related to function. Credit only given once for BIOL 128 or BIOL 129. Prerequisites: BIOL 051 and BIOL 061.

BIO 129. Histology Online. 3 Units.
This is a non-lab, online version of BIOL 128. Credit is only given once for BIOL 128 or BIOL 129. Prerequisites: BIOL 051 and BIOL 061. Recommended: BIOL 101.

BIO 130. Plant Kingdom. 4 Units.
Through lectures, laboratories and field trips, students are introduced to the morphology, reproduction biology and environmental requirements of all major groups of plants. Included are material bearing on the evolutionary relationships within and between each major group. Individual projects are required. Prerequisites: BIOL 051 and BIOL 061. (ENST)

BIO 134. Comparative Physiology. 4 Units.
This course is a detailed review of organ function in diverse groups of organisms. Emphasis is on physiological adaptation to the environment. Prerequisites: BIOL 051 and BIOL 061.

BIO 145. Microbiology. 5 Units.
The biology of microorganisms is studied with emphasis on viruses, bacteria, fungi and protozoa. In addition to lecture, one-three hour laboratory per week is required. Prerequisites: BIOL 051, BIOL 061; CHEM 025, CHEM 027.

BIO 146. Industrial Microbiology. 4 Units.
An in-depth knowledge of the industrial applications of microorganisms. The course uses an understanding of microbial physiology and genetics to illustrate how these organisms are utilized to create commercial products ranging from medicines to food products. Prerequisite: BIOL 145.
BIOL 147. Medical Microbiology. 4 Units.
Medical microbiology covers a survey of microorganisms implicated in human disease; emphasis on characteristics and properties of microorganisms, chiefly bacteria and fungi which are responsible for pathogenesis. Laboratory includes methods of isolation, characterization, and identification of bacteria and fungi responsible for human disease. Prerequisites: BIOL 145 and CHEM 121 with a C- or higher or permission of instructor.

BIOL 151. Parasitology. 4 Units.
Principles of parasitism as well as biology of animal parasites with special emphasis on the protozoa, platyhelminths, nematodes, acanthocephala and arthropods are studied. Techniques of recovery of parasites from various vertebrate hosts are introduced including staining, mounting and identification. Prerequisites: BIOL 051, BIOL 061, BIOL 101.

(ENST)

BIOL 153. Cell Biology. 4 Units.
Cell Biology studies cell structure and function with emphasis on the dynamic nature of the cellular environment and the methodologies of cell biology. The experimental basis of our present understanding of the cell is also stressed. Prerequisites: BIOL 051, BIOL 061, BIOL 101, CHEM 025 and CHEM 027. Recommended: Organic chemistry.

BIOL 155. Biological Electron Microscopy. 4 Units.
The process and techniques involved in examining biological specimens with the transmission electron microscope will be covered in detail. When competence in specimen processing is achieved, each student performs an original experiment as a term project. Prerequisites: BIOL 051, BIOL 061, CHEM 025, CHEM 027. Recommended: BIOL 101.

BIOL 157. Topics in Biomedical Research. 4 Units.
Basic research in the areas of cell biology, biochemistry, molecular biology and physiology are examined in their applications to current problems in medicine. Topics covered include genetic engineering, gene therapy, transplants and cloning. Prerequisites: BIOL 051, BIOL 061, BIOL 101; CHEM 121.

BIOL 158. Computerized Data Acquisition. 4 Units.
This lecture and laboratory course introduces students to experimental design and protocol. Students are trained in the programming and use of the computer data acquisition program LabVIEW, then apply the program to an intensive, team-based research project studying amphibian reproductive behavior. The class ends with a symposium-style presentation of each team's experiments and results. Prerequisites: BIOL 051 and BIOL 061.

BIOL 159. Molecular Biological Techniques. 4 Units.
This advanced laboratory course in the methods of molecular biology, has an emphasis on modern techniques and their application in the laboratory. Topics covered include gene cloning, protein expression systems, nucleic acid isolation and purification, and basic methods of bioinformatics. Prerequisites: BIOL 101 and CHEM 121 with a "C-" or higher.

BIOL 162. Comparative Vertebrate Anatomy. 5 Units.
The evolution of vertebrate organ systems as revealed by comparative morphology are emphasized. Prerequisites: BIOL 051 and BIOL 061. Recommended: BIOL 101.

BIOL 165. Embryology and Development. 4 Units.
This laboratory course focuses on the events that occur as a single-celled embryo develops into an adult organism. Developmental processes are studied at the descriptive and mechanistic levels, leading to an understanding of how and why complex structures are produced. Major emphases is placed on animal embryology (both vertebrate and invertebrate) leading to the production to tissues, organs and organ systems. Later developmental processes also are studied, as well as sex determination. Additional topics include cancer and evolution as seen in the context of development. Prerequisites: BIOL 051, BIOL 061, BIOL 101.

BIOL 169. Elements of Biochemistry. 4 Units.
The field of biochemistry is the focus in this non-lab course that is designed as a preparation for students who will attend a Pharmacy or Dental School. Topics include nucleic acid and protein structure and synthesis, intermediary metabolism, enzyme action, and synthesis and degradation of important biological molecules. The relationship of biochemistry, nutrition, and human disease is discussed. This course does not count for the Biochemistry major. Prerequisites: BIOL 051, BIOL 061, BIOL 101, CHEM 123 with a "C-" or higher.

BIOL 171. Methods in Field Biology. 4 Units.
A course focused on methods of biological investigation with emphasis on modern field sampling techniques and instrumentation. Students are trained in experimental design and quantitative data analysis used to address a range of biological questions. Prerequisites: BIOL 051 and BIOL 061 with a "D" or better.

BIOL 175. Ecology. 5 Units.
The structure and dynamics of populations, biotic communities and ecosystems, is emphasized with particular focus upon relationships of organisms to their environments. Prerequisites: BIOL 051 and BIOL 061.

(ENST)

BIOL 176. Ecology and Conservation Biology. 4 Units.
The principles of ecology are introduced with attention to consider threats and disruptions to ecological systems from the level of local populations through ecosystems, landscapes, and global processes. Ecological principles are used to help understand these systems, to make predictions for the future or for other systems, and to evaluate possible solutions. The class considers the importance of economic and demographic forces in causing conservation problems and in shaping conservation strategies, and students practice planning conservation areas. Prerequisite: BIOL 051. (ENST)

BIOL 177. Natural Medicines. 4 Units.
A lab course that surveys drugs found in nature, in particular their history, uses, and mode of action, and is designed as a preparation for students who will attend a Pharmacy or Dental School. Topics include history of medicine, survey of natural compounds relevant to pharmacology, and survey of naturally-derived drugs used to treat cancer, heart disease, and neurological disorders. Prerequisites: BIOL 051, BIOL 061, BIOL 101, CHEM 123 with a "C-" or higher.

BIOL 179. Evolution. 4 Units.
Lectures and readings on the mechanisms of evolutionary change in organisms are the focus. Prerequisites: BIOL 051 and BIOL 061. Recommended: BIOL 101.

BIOL 182. Medical Endocrinology. 4 Units.
This lecture and laboratory course presents the fundamentals and current topics in human endocrinology. The subject is examined from a medical and clinical perspective, including "virtual" patients. Prerequisites: BIOL 051, BIOL 061, BIOL 101; CHEM 025 and CHEM 027. Recommended: BIOL 071 and BIOL 081.
BIOL 185. Comparative Animal Behavior. 4 Units.
The ecology and evolution of animal behavior are discussed. Laboratory
involves a quantitative study of animal behavior at Micke Grove Zoo.
Prerequisites: BIOL 051 and BIOL 061. Junior standing in Biological
Sciences or Psychology.

BIOL 186. Hormones and Behavior. 4 Units.
This lecture/discussion course focuses on the bidirectional interactions
between an animal's behaviors and its endocrine system. Topics
include: overview of the vertebrate endocrine system, courtship and sex
behaviors, parenting behavior, pheromonal communication, aggression
and other social behaviors, learning and memory, hunger, stress, and
biological rhythms. Prerequisites: BIOL 051, BIOL 061, BIOL 101.

BIOL 191. Independent Study. 2-4 Units.

BIOL 197. Undergraduate Research. 1-4 Units.

BIOL 222. Immunology. 4 Units.
Students study immunoglobulin structure, function, and expression
in animals. Molecular and cellular mechanisms of humoral immune
response, cell-mediated immunity, complement system, autoimmune
diseases, tolerance induction, transplantations, cancer immunity,
vaccines, and cytokine actions are also emphasized. Graduate standing.

BIOL 224. Cancer Biology. 4 Units.
The course examines the morphological and molecular events that
accompany the change of a normal mammalian cell into a cancer cell,
with an emphasis on the major pathways that affect cell growth and
division, cell communication, cell death and metastasis.

BIOL 226. Neurobiology. 4 Units.
The course focuses on the molecular and cell biology of neuronal
function and development, and how neurons work together to retrieve
and process information and respond accordingly. It involves thorough
discussions of sensory and motor systems and a brief review of more
complex brain functions, such as emotions, speech and language, and
memory.

BIOL 234. Comparative Physiology. 4 Units.
This course offers a detailed review of organ function in diverse groups of
organisms. Emphasis is on physiological adaptation to the environment.
Graduate standing.

BIOL 244. Developmental Biology. 4 Units.
Students examine the genetic control of development and the
physiological mechanisms involved in fertilization and differentiation.
Graduate standing.

BIOL 246. Industrial Microbiology. 4 Units.
An in-depth knowledge of the industrial applications of microorganisms.
The course uses an understanding of microbial physiology and genetics
to illustrate how these organisms are utilized to create commercial
products ranging from medicines to food products. Prerequisite: BIOL 145.

BIOL 247. Medical Microbiology. 4 Units.
This course content is the same as BIOL 151. Principles of parasitism,
biohlogy of animal parasites with special emphasis on the protozoa,
nematodes, helminths, acanthocephalae, and arthropods are covered
with three additional hours per week of seminar and/or special project.
Graduate standing.

BIOL 253. Cell Biology. 4 Units.
This course content is the same as BIOL 153. Students take an in-depth
look at the structure and function of a cell with an emphasis on the
methodologies of Cell Biology. Research-based current understanding
of the topics is stressed and a special project is required. Graduate
standing.

BIOL 255. Biological Electron Microscopy. 4 Units.
This course content is the same as BIOL 155. The processes and
techniques involved in examining biological specimens with the
transmission electron microscope are covered in detail. When
competence in specimen processing is achieved, each student performs
an original experiment as a term project. Graduate standing.

BIOL 259. Molecular Biological Techniques. 4 Units.
This is an advanced laboratory course in the methods of molecular
biology, with emphasis on modern techniques and their application in
the laboratory. Topics covered include gene cloning, protein expression
systems, nucleic acid isolation and purification, and basic methods of
bioinformatics. Graduate standing.

BIOL 271. Methods in Field Biology. 4 Units.
This is a course focused on methods of biological investigation with
emphasis on modern field sampling techniques and instrumentation.
Students are trained in experimental design and quantitative data
analysis used to address a range of biological questions. Graduate
standing.

BIOL 279. Evolution. 4 Units.
This course content is the same as BIOL 179 and a special project is
required. Graduate standing.

BIOL 291. Independent Study. 2 or 4 Units.

BIOL 295. Graduate Seminar. 4 Units.

BIOL 297. Graduate Research. 1-6 Units.

BIOL 299. Thesis. 2 or 4 Units.

Communication Courses
COMM 114. Argumentation and Advocacy. 4 Units.
Students are introduced to the theory and practice of argumentation,
which is a method of decision-making emphasizing reason giving
and evidence. The course includes instruction in debating, research,
and critical writing, as well as advanced topics in the study of public
deliberation. Prerequisites: COMM 027 or COMM 031 or COMM 043 or
COMM 050, with a grade of C or higher. (PLAW)

COMM 116. Rhetorical Theory and Criticism. 4 Units.
The focus of this class is to help students derive insight into how
symbolic processes affect human awareness, beliefs, values, and
actions. The course treats criticism and analysis as methods of inquiry
into the nature, character, and effects of human communication.
It addresses various methods of rhetorical criticism in terms of their
central units of analysis and typical intellectual concerns. Prerequisite:
COMM 160 or permission of the instructor.

COMM 117. Public Advocacy. 4 Units.
This course teaches the principles of persuasion in public contexts in the
U.S. (types and characteristics of public audiences, official and unofficial
advocacy campaigns, and media framing of public issues) from historical
and theoretical perspectives. The focus is to make students aware of the
constraints and opportunities in public advocacy arguments and their
public dissemination. (GE1A)
COMM 131. Media Production. 4 Units.
Practical and theoretical application of audio and video production techniques are covered in this course with an emphasis on aesthetic qualities of sight and sound productions. Some work involves student media facilities. A Lab fee is required. Prerequisite: COMM 031 or permission of instructor. (FILM)

COMM 132. Writing for Media. 4 Units.
Examination and production of electronic and print writing techniques are studied in this course with an emphasis on writing news, information, and entertainment messages for the electronic and print industries. Some work involves student media facilities. A Lab fee is required. Prerequisite: COMM 031.

COMM 133. Documentary Film as Persuasive Communication. 4 Units.
This course is a survey of documentary film beginning at the turn of the century and continuing through contemporary productions from a historical and rhetorical perspective. Students explore documentary film’s origins and trace out its development in relation to its use and reception as students become familiar with the history of the documentary, the evolution of the genre, its rhetorical construction and its cultural influences. (DVSY, ETHC, FILM)

COMM 134. Documentary Film Production. 4 Units.
This course is a field video production course in documentary production. Through a series of assignments, lectures and screening students learn the basics of video production for documentary style productions. This includes research, management, pre-production, production and post-production processes. Students work primarily within groups to produce documentary projects using digital production equipment and techniques. There are no prerequisites for this course. (FILM)

COMM 135. Principles of Public Relations. 4 Units.
Principles and methods of public relations are discussed and analyzed. Study of the mass media as publicity channels acquaints the students with the nature of the media, its limitations, and uses. Case studies involve students in practical application of public relations activities. Prerequisite: COMM 031.

COMM 137. Public Relations Case Studies and Problems. 4 Units.
This is an advanced course in public relations. The course engages students in case study research and application of public relations principles. There is both written and oral presentations with adherence to professional standards of excellence. Prerequisite: COMM 135.

COMM 139. Theory of Mass Communication. 4 Units.
An overview of major theories and research in mass communication is presented. Application of theories that explain and predict communication effects of political campaigns, advertising, entertainment, and information are discussed. Theoretical areas that are covered include socialization, information, diffusion, advertising, persuasion, and uses and gratification’s research in addition to the discussion of the state, function, and form of theory in mass communication. Prerequisite: COMM 160 or permission of instructor.

COMM 140. Writing for Public Relations. 4 Units.
Theory and practice in public relations writing in the context of publicity are emphasized. Students learn the write news releases, backgrounds, business letters and feature stories. Prerequisite: COMM 135.

COMM 143. Intercultural Communication. 4 Units.
This course analyzes the major variables affecting interpersonal communication between persons of different cultural backgrounds. (DVSY, ETHC, GE1C)

COMM 145. Human Communication Theory. 4 Units.
Contemporary understandings of human interaction are studied beginning with epistemological issues as a framework. The course examines theory building, foundation theories of our discipline, and contextual theories.

COMM 147. Nonverbal Communication. 4 Units.
Major dimensions of nonverbal behavior exhibited by human beings in social interactional contexts are examined with special emphasis given to such areas as human proxemics, kinesics vocalics, haptics, and artifactual codes. Prerequisite: COMM 043 or permission of instructor.

COMM 149. Introduction to Organizational Communication. 4 Units.
Students are introduced to both a theoretical and an applied approach to the role of communication in various aspects of organizational functioning, such as motivation, leadership, decision-making, conflict management, message management, etc. Prerequisites: COMM 027 and COMM 043 or permission of instructor.

COMM 150. The Capstone. 4 Units.
This senior level capstone seminar devoted to expanding and applying communication course concepts that students have learned in the communication major and applying this knowledge to contemporary communication issues. Students undertake research projects and employ a variety of communication methodologies and theories to uncover the social, historical and ethical implications of their chosen communication interest. This course is designed to foster and promote communication competence, including analytic capacity, media literacy and ability to identify ethical issues in communication. Preparation for future professional work and development are explored. Senior standing.

COMM 151. Community Based Learning. 2 Units.
This senior-level capstone course provides students with a supervised learning experience in an off-campus, community-based organization. Students apply their knowledge of communication theories and skills to the needs of local organizations, which allows them to contribute to the public good. Senior Standing.

COMM 155. Persuasion. 4 Units.
This course is a survey of social psychological and communication approaches to social influence. Both past and contemporary theorizing is explored, and the methods of empirical research is discussed. Prerequisite: COMM 027 or permission of the instructor.

COMM 156. Public Relations Campaigns. 4 Units.
Building on the skills acquired in previous public relations courses, this course is designed to help students continue to develop and refine their critical and creative thinking in an applied context. Students will research, plan, and design public relations strategies and tactics in the development of a public relations campaign for a real-world client. Prerequisite: COMM 135.

COMM 160. Communication Research Methods. 4 Units.
This course is a study of research methods appropriate for examining communication-related problems. Topics for the course include historical-critical methods, descriptive methods, experimental methods, statistical models for data analysis and research reporting and writing. Prerequisites: COMM 027, COMM 031, COMM 043 with a "C-" or better.

COMM 187. Internship. 2-4 Units.
Experiences in a work setting are contracted on an individual basis. Internships are awarded on a competitive basis and are limited to the number of placements available. COMM 187 represents advanced internship work involving increased independence and responsibility; a corresponding COMM 087 course or equivalent is a prerequisite. Students may not accumulate for credit more than eight units in any specific internship (a total of four in a COMM 087 course and a total of four in a COMM 187 course). Graded Pass/No credit.
COMM 189. Practicum. 1-4 Units.
This course is non-classroom experience in activities related to the curriculum under conditions that the appropriate faculty member determines. Students register for one of the courses listed below. Courses numbered 189 are similar contexts with a more advanced level of performance and learning expectations compared to courses numbered 089. Note: A student may not accumulate for credit more than eight units in any specific practicum. A total of four in a COMM 089 course and a total of four in a COMM 189 course. Prerequisite: COMM 089.

COMM 189A. Advanced Print Practicum. 1-4 Units.
COMM 189B. Advanced Broadcast Practicum. 1-4 Units.
COMM 189C. Advanced Public Relations Practicum. 1-4 Units.
COMM 189D. Advanced Speech and Debate Practicum. 1-4 Units.
COMM 191. Independent Study. 2-4 Units.
COMM 197. Independent Research. 2-4 Units.
COMM 198B. Broadcast Practicum. 2-4 Units.

COMM 200. Communication and Consulting. 3 Units.
This course explores topics related to the work of communication consultants. Through the course readings, presentations, workshops and other assigned work, students will acquire an understanding of the consulting process, including the role of the consultant, methods for undertaking a needs assessment, strategies for conducting training programs, and techniques for evaluating the work of consultants.

COMM 201. Applied Public Relations. 3 Units.
This course examines public relations strategies and tactics, as applicable to politics, non-profits and education. It will explore public affairs, public outreach and crisis management, and prepare students to communicate and utilize public relations with internal and external audiences.

COMM 202. Public Communication Campaigns. 3 Units.
The course is designed to provide a comprehensive overview of communication theory as it relates to attitudes and behavior changes involving public communication campaign issues. The course will also develop an understanding of the application of various quantitative and qualitative research methods to the design, execution, and evaluation of public communication campaigns.

COMM 203. New Communication Technology. 3 Units.
The course is designed to provide a comprehensive overview of a range of new communication technology and to give students basic skills and theoretical principles for their application to public communication through presentations, readings, videos placed on iTunes University and exercises. In addition, the course will enable students to identify, internalize and practice the necessary components of using new media technology for effective public communication.

COMM 204. Media Relations: New Media World. 3 Units.
The purpose of this course is to discuss and debate media relations principles and practices in relation to government, corporations, and public policy. From a scholarly examination of this unique and important form of communication, the course will survey the current trends and issues, and determine the validity of existing theories of media relations management from government, corporate, and community perspectives.

COMM 205. Communication Decision Making. 3 Units.
The purpose of this course is to assess communication strategies in decision making. From a scholarly examination of communication theories and decision making stages, the course will focus on the significance of communicating, administering, and evaluating decision making in professional environments.

COMM 206. Management of Organizational Communication. 3 Units.
This course examines both theoretical and applied approaches concerning the role of communication in various aspects of organizational function, such as motivation, leadership, decision-making, conflict management, and message management.

COMM 207. Advanced Professional Communication. 3 Units.
This advanced course both builds on basic oral and written professional communication skills, and goes well beyond them. The goals of this course are to provide opportunities for students to polish communication skills in different contexts, and to provide practice in and feedback on the interactive communication skills essential to successful professionals.

COMM 214. Argumentation and Advocacy. 4 Units.
This course introduces students to the theory and practice of argumentation, that is a method of decision-making that emphasizes reason giving evidence. The course includes instruction in debating, research, and critical writing, as well as advanced topics in the study of public deliberation. Prerequisites: three courses from COMM 027, 031, 043, 050 with a GPA of 2.5 or better, or permission of the instructor.

COMM 216. Rhetorical Theory and Criticism. 4 Units.
This course strives to help students derive insight into how symbolic processes affect human awareness, beliefs, values, and actions. The course treats criticism and analysis as methods of inquiry into the nature, character, and effects of human communication. It addresses various methods of rhetorical criticism in terms of their central units of analysis and typical intellectual concerns. Prerequisite: COMM 160 or permission of the instructor.

COMM 233. Documentary Film as Persuasive Communication. 4 Units.
This course is a survey of documentary film beginning at the turn of the century and continuing through contemporary productions from a historical and rhetorical perspective. Students explore documentary film's origins and trace out its development in relation to its use and reception as students become familiar with the history of the documentary, the evolution of the genre, its rhetorical construction and its cultural influences.

COMM 237. PR Case Studies and Problems. 4 Units.
This advanced course in public relations engages students in case study research and application of public relations principles. Written and oral presentations with adherence to professional standards of excellence are required. Prerequisite: COMM 135.

COMM 239. Theory of Mass Communication. 4 Units.
This course is an overview of major theories and research in mass communication. Students examine the application of theories that explain and predict communication effects of political campaigns, advertising, entertainment, and information. Theoretical areas covered include socialization, information, diffusion, advertising, persuasion, and uses of gratification's research. The state, function, and form of theory in mass communication is discussed. Prerequisite: COMM 160 or permission of the instructor.

COMM 245. Human Communication Theory. 4 Units.
Students study contemporary understandings of human interaction. Beginning with epistemological issues as a framework, the course examines theory building, foundation theories of our discipline, and contextual theories.

COMM 247. Nonverbal Communication. 4 Units.
The course examines major dimensions of non-verbal behavior exhibited by human beings in social interactional contexts. Special emphasis is given to such areas as human proxemics, kinesics, vocalics, haptics, and artifactual codes. Prerequisite: COMM 043 or permission of the instructor.
COMM 249. Introduction to Organizational Communication. 4 Units.
This course takes both a theoretical and an applied approach to introduce the student to the role of communication in various aspects of organizational functioning, such as motivation, leadership, decision-making, conflict management, message management, etc. Prerequisites: COMM 043 and COMM 027 or permission of the instructor.

COMM 255. Persuasion. 4 Units.
This course is a survey of social psychological and communication approaches to social influence. Both past and contemporary theorizing are explored, and the methods of empirical research is discussed. Prerequisite: COMM 027 or permission of the instructor.

COMM 256. Public Relations Campaigns. 4 Units.
Building on the skills acquired in previous public relations courses, this course is designed to help students continue to develop and refine their critical and creative thinking in an applied context. Students will research, plan, and design public relations strategies and tactics in the development of a public relations campaign for a real-world client.

COMM 260. Communication Research Methods. 4 Units.
Students study research methods appropriate for examining communication-related problems. Topics for the course include historical-critical methods, descriptive methods, experimental methods, statistical models for data analysis and research reporting and writing. A minimum GPA of 2.5 is required. Prerequisites: COMM 027, 031, 043, or permission of the instructor. Recommended for sophomores.

COMM 261. Critical and Qualitative Research Methods. 4 Units.
The course provides a graduate-level introduction to qualitative methods used in communication studies. Topics covered provide an overview of rhetorical analysis, critical and cultural studies, ethnography, and case studies in public relations. The course emphasizes the connection between the theoretical foundations of qualitative inquiry and their applications to communicative interactions. Applications include the writing of criticism, field work in ethnography, and case studies.

COMM 262. Quantitative Research Methods. 4 Units.
This course develops expertise in undertaking quantitative research at the graduate level. The seminar focuses on various quantitative methods, that include content analysis, survey research, experimental design, and scale construction, as well as statistical techniques for analyzing quantitative data.

COMM 271. Graduate Seminar: Rhetorical Thought. 4 Units.
This course provides a graduate level introduction into the theory and practice of rhetorical criticism. The course focuses on the role of the critic and six modes of criticism which are as follows: generic criticism, cluster, narrative criticism, descriptive criticism, ideological criticism, metaphoric criticism, and fantasy theme criticism.

COMM 272. Graduate Seminar: Interpersonal Communication. 4 Units.
This course provides the student who has achieved a general understanding of interpersonal communication issues the opportunity to choose and explore a particular area of special interest. The first phase of the course focuses on discussion of several theories of interpersonal behavior. Beginning approximately the fourth week of class, each student brings in and presents two or more abstracts of published articles related to the interest area. The last session(s) provides the opportunity for students to share their conclusions with the others. Each student completes a paper which presents a research proposal in the area of interest. The term paper is due the last scheduled day of classes.

COMM 273. Graduate Seminar: Mass Communication. 4 Units.
The purpose of this course is to provide an introduction to mass communication theory and scholarship from three different scholarly perspectives: the social science or traditional paradigm, the critical theory paradigm, and the ethnographic paradigm. Students are not only exposed to the literature in each of these areas, but they are also asked to conduct small scale studies from two of the three paradigms. Because the class is a seminar, student presentations and discussion are the major activity during class time.

COMM 275. Graduate Seminar: in Public Relations. 4 Units.
The Graduate Seminar in Public Relations is designed through in-depth study and research to formalize understanding of Public Relations: theory and practice, functions in organizations and role in society. Students study concepts and theories related to public relations role in social systems. A "mock" APR tests knowledge at the end of the semester with both a written and an oral examination.

COMM 276. Communication in Learning Settings. 4 Units.
This graduate seminar is designed to develop knowledge of current communication education research and effective communication strategies for teaching undergraduate courses in communication.

COMM 277. Media Relations. 4 Units.
This course is to discuss and debate media relations, principles, and practice.

COMM 278. Political Communication. 4 Units.
This course is designed to provide a grounding in rhetorical approaches to persuasion in a political context, to acquaint students with the range of political ideologies, and to examine the theoretical and pragmatic opportunities and obstacles to advocacy in the current mediated content of national, regional, or local politics.

COMM 279. Visual Communication. 4 Units.
This course investigates the persuasive influence of decoding visual images, advertising, public relations, political campaigns, public memory, and popular culture. Historical and theoretical aspects of visual communication will be studied in this course. Critical analysis methods and ethical implications of electronic and print media images will be discussed.
COMM 287. Graduate Internship. 2 or 4 Units.
COMM 289. Graduate Practicum. 2 or 4 Units.
COMM 291. Graduate Independent Study. 2-4 Units.
COMM 295. Graduate Seminar. 4 Units.
COMM 297. Graduate Research. 1-4 Units.
COMM 298. Non-Traditional Thesis. 4 Units.

After completing coursework and comprehensive examinations, students work in the Communication Graduate Program culminates with enrollment in COMM 298: Non-Traditional Thesis a three-part project that includes: a written Proposal for the non-traditional thesis, a written document that summarizes the non-traditional thesis, and a formal presentation and oral examination in which the student presents the completed work to his or her committee. The non-traditional thesis involves a study around an issue or challenge facing an organization or business with a media or public relations focus. It emphasizes both scholarly and practical application in line with the professional orientation of the Pacific Communication Department. The subject of the non-traditional thesis may be the student’s employer. Students complete the non-traditional thesis under the direction of a full-time faculty member, who serves as chairperson of the student’s non-traditional thesis committee. Two additional faculty members and/or industry professionals join the chairperson on the committee. A non-traditional thesis may take many forms, though all must be noteworthy for substance and artistic or professional quality. Non-traditional theses could include: documentary films and videos, slide programs, photo essays, feature or investigative article series, handbooks for professionals (e.g., the result of synthesizing and translating scholarly research), or magazine design and layout projects. The non-traditional thesis can be a well conceptualized magazine article series (for example, three 2,500-word stories) targeted to a specific publication. Such non-traditional theses must show both greater depth and breadth (conceptually, stylistically and in terms of quality of research) than any single assignment completed in a graduate level class. Prerequisites: Completion of 28 units and instructor permission.

COMM 299. Thesis. 2 or 4 Units.
COMM 391. Graduate Independent Study. 2-4 Units.

Hlth, Exercise Sprt Sci Courses

HESP 100. Introduction to Research in Health, Exercise and Sport Sciences. 3 Units.
This class is designed to develop research skills specific to the fields within health, exercise and sport sciences. Students learn to collect, review, synthesize and critically analyze scholarly research. Students are also able to create research questions and establish hypotheses, and they are supposed to a variety of data collection methods. In addition, students learn to apply appropriate techniques to interpret data and apply the results in health, exercise, and sport settings. The intention of this course is to develop analytical skills to enable to the student to conduct and evaluate ethical research in your chosen field.

HESP 121. Analysis of Team and Individual Sports. 3 Units.
This is an applied motor learning approach to skill acquisition for team and individual sports. In addition to personal skill development, students learn to prepare the introduction, explanation and demonstration of sports skills; develop and maintain skill levels through practice and reinforcement; analyze movement by systematically observing performance; utilize biomechanical concepts to analyze, correct and enhance performance and cognitive processes to improve performance. Ten to 15 different team and individual sports are presented and instruction time per sport varies. Lab fee required.

HESP 123. Analysis of Nontraditional Games and Sports. 3 Units.
This is an applied motor learning approach to skill acquisition for nontraditional games and sports. A variety of nontraditional games and outdoor activities embedded in the CA curriculum framework for physical education. Clinical experience is provided for secondary students in the community. Eight to 10 different nontraditional games and sports are presented and instruction time per sport varies. Lab fee required.

HESP 129. Principles of Exercise Physiology. 4 Units.
A course designed to meet the broad needs of Sports Sciences majors, utilizing a practical approach based on underlying physiological principles as guidelines for exercise practices, as found in physical education, athletics, adult exercise prescription and other settings. Outside laboratory assignments are carried out for the purpose of demonstrating basic physiological responses and the resulting principles that are drawn from them for application in exercise and testing settings. Lab fee required.

HESP 131. Assessment and Evaluation. 4 Units.
This course is the development of competencies of Health, Exercise and Sport Sciences majors for the design and implementation of procedures to appropriately measure and evaluate students, clients and/or programs. Basic data acquisition methods and statistical analysis techniques are presented. A lab fee is required.

HESP 133. Kinesiology. 4 Units.
This course is a functional study of musculoskeletal anatomy and its relationship to human movement, posture, exercise prescription, and rehabilitation. Prerequisite: BIOL 011 or BIOL 051 or BIOL 061 or permission of instructor, and lab fee required.

HESP 135. Exercise Metabolism. 4 Units.
This course provides a thorough study of the principles of nutrition as they relate to health of individuals who participate in sports or physical activity. Topics include calculating energy balance and the role of carbohydrates, lipid, protein, vitamins, minerals and water in sports performance. The application of these topics for optimal metabolic functioning to a variety of physical activities is also presented. Prerequisites: HESP 129; BIOL 011 or BIOL 061.

HESP 137. Psycho-Social Aspects of Sport. 3 Units.
Students study the manner in which psychological factors influence sport performance and the manner in which sport participation can influence the human psyche. Theories concerning the relationship between human cognition, behavior and sport performance are covered. Particular emphasis is given to the practical application of these theories.

HESP 139. Exercise Psychology. 4 Units.
This course employs the theories and methods of psychology to examine the related fields of competitive sports, fitness, exercise, and rehabilitation from injury. Major questions addressed in the course include: How do psychological factors influence participation in physical activity and performance of the individual? How does participation in physical activity or incapacity due to an injury affect the psychological make-up of the individual? These questions are explored from educational, coaching, research, and clinical perspectives.
HESP 141. Sport, Culture and U.S. Society. 4 Units.
This course is designed to explore the relationship between sport, culture and society in both the USA and the broader global world. Students learn to critically examine a wide range of topics that include, but not limited to, sport and gender, sport and race, global sports worlds, drugs and violence in sport, sport and politics and the crime-sport nexus. The intention of this course is to develop the student’s sociological imagination and encourage the student to think critically about the role sport plays in the development of societies, ideologies and everyday life. (DVSY, ETHC, GE1B, GEND)

HESP 142. Sport and Globalization. 4 Units.
This course examines the interaction between sport and globalization. The foundation of the course is to provide a basic understanding of globalization and its underlying forces will provide a foundation for the course. The main focus of the course is the reciprocal nature of sport and globalization with special attention given to sport economic, cultural, and political issues. This course explores sport tourism and the Olympics as the two main intersections of sport and globalization.

HESP 143. Prevention and Acute Care of Injury and Illness. 4 Units.
This course provides an overview of the field of Athletic Training, its organization, and the responsibilities of a Certified Athletic Trainer (AT) as part of the sports medicine team. Instruction emphasizes prevention, recognition, and immediate care of injuries and illnesses associated with physical activity. This course is recommended for freshmen.

HESP 145. Therapeutic Modalities. 4 Units.
This course is a lecture and laboratory experience designed to expose the student to the theory, principles, techniques and application of therapeutic modalities pertaining to the treatment of athletic or activity related injuries. Topics include discussions of the physiological effects, indications, contra indications, dosage and maintenance of each modality. Recommended: BIOL 081. Lab fee is required. Junior standing.

HESP 146. Health, Disease, and Pharmacology. 4 Units.
This course is an in-depth exploration of physical, mental, and social health with specific emphasis on recognizing the signs, symptoms, and predisposing conditions associated with the progression of specific illnesses and diseases as they relate to the physically active individual. Students also develop an awareness of the indications, contraindications, precautions, and interactions of medications used to treat those illnesses and diseases.

HESP 147. Exercise Physiology I. 4 Units.
This course is primarily designed to familiarize students with the theoretical background and hands-on skills to competently assess levels of wellness/fitness in a healthy, active, adult population. The topics and skills in the class encompass the latest information on the structure and function of body systems, training adaptations, testing and evaluation, exercise techniques, and program design. These skills are used to prescribe lifestyle and/or exercise modifications that result in individual progress toward a desired goal. The content of this course is highly focused toward the knowledge and skills required for successfully completing the National Strength and Conditioning Association’s Certified Strength and Conditioning Specialist (CSCS) examination. Prerequisite: HESP 129 and upper-division class standing. Lab fee required.

HESP 149. Clinical Evaluation and Diagnosis I. 3 Units.
This course presents an in-depth study of musculoskeletal assessment of the lower extremity, thoracic and lumbar spine for the purpose of identifying (a) common acquired or congenital risk factors that would predispose an individual to injury and/or (b) musculoskeletal injury common to athletics or physical activity. Students receive instruction in obtaining a medical history, performing a visual observation, palpating bones and soft tissues, and performing appropriate special tests for injuries and conditions of the foot, ankle, lower leg, knee, thigh, hip, pelvis, lumbar and thoracic spine. This course is directed toward students who pursue athletic training and/or physical therapy professions. Prerequisite: HESP 133 or BIOL 071, and a lab fee is required.

HESP 150. Clinical Evaluation and Diagnosis II. 3 Units.
This course presents an in-depth study of musculoskeletal assessment of the upper extremity, cervical spine, head and face for the purpose of identifying (a) common acquired or congenital risk factors that would predispose an individual to injury and/or (b) musculoskeletal injury common to athletics or physical activity. Students receive instruction in obtaining a medical history, performing a visual observation, palpating bones and soft tissues, and performing appropriate special tests for injuries and conditions of the shoulder, upper arm, elbow, forearm, wrist, hand, fingers, thumb, cervical spine, head, and face. This course is directed toward students who pursue athletic training and/or physical therapy professions. Prerequisites: HESP 149; HESP 133 or BIOL 071. Lab fee is required.

HESP 151. Elementary Physical Education. 3 Units.
This course is designed to prepare students for employment in an elementary school setting and provide them with the tools necessary to formulate and implement a comprehensive elementary PE experience for all students. Participants learn a wide range of teaching skills that facilitate the ability to create a quality active learning environment in elementary PE. Students explore effective teaching and assessment strategies, classroom management skills, the use of constructive feedback, the negotiation of diverse classrooms and the development of appropriate student learning outcomes. Students also are introduced to the subject matter of elementary PE and will undertake several teaching episodes. This course encourages students to engage in reflexive teaching practices, develop physically educated young people, maximize student involvement and enjoyment in PE and integrate core curriculum subject matter into PE lessons.

HESP 152. Secondary Physical Education. 4 Units.
This course is designed for junior/senior level students in the Sport Sciences/Sport Pedagogy concentration to deliver an effective, meaningful physical education curriculum to diverse students. This course covers curriculum components that include content, content organization, distinctive curriculum models and aspects of curriculum application. Students learn how to sustain a positive learning experience, conceive and plan meaningful curricula for school based instruction, and link the school program to opportunities for adolescents outside of school. Prerequisites: HESP 121, HESP 123, HESP 151.
HESP 153. Equity and Inclusion in Physical Education. 4 Units.
This course is designed to provide students with the theoretical and practical tools necessary to teach PE within a diverse classroom. Students learn a wide range of teaching skills that facilitate their ability to create a quality inclusive learning environment in Physical Education. Particular attention is paid to the following diversity categories: disabilities, gender, ethnicity and social class. Students explore a variety of adapted PE activities, federal/state legislative mandates and related polices, effective teaching and assessment strategies, classroom management skills, the use of constructive feedback and the development of appropriate student learning outcomes within diverse classrooms. Students undertake a number of peer-to-peer teaching episodes. The course encourages the students to engage in reflexive teaching practices, develop inclusive PE lessons sensitive to diversity issues and maximize student involvement and enjoyment in PE. (DVSY)

HESP 155. Motor Learning. 3 Units.
This course examines aspects of skilled performance and motor learning from a developmental perspective. It is concerned with the major principles of human performance and skill learning, the progressive development of a conceptual model of human actions and the development of skill through training and practice. Topics include human information processing, decision-making and movement planning, perceptual processes relevant to human movement, production of movement skills, measurement of learning, practice design, preparation, organization, and scheduling; use of feedback, in addition to the application of motor learning principles to sport, physical education, industrial and physical therapy settings.

HESP 157. The Clinician in Health and Exercise Science. 4 Units.
This course integrates theory and practice and requires students to develop a research topic, consistent with an explicitly and narrowly defined area of interest. Permission of the instructor is required.

HESP 159. Educator in Preparation. 3 Units.
This course is designed for the future physical educator to deliver an effective, meaningful physical education experience to diverse students and help them sustain it through the knowledge to conceive and plan meaningful curricula, the administrative skill to produce an organizational structure within school time that optimizes the impact of the program, and the creative energy to link the school program to opportunities for children and youths outside of school. Prerequisites: HESP 131 and HESP 151.

HESP 161. Biomechanics of Human Movement. 4 Units.
This course is an introduction to the biomechanics of human movement and the analytic procedures and techniques for subsequent application in the sport sciences and related fields. The course includes a review of basic functional/mechanical human anatomy and kinesiology. Outcome objectives are an understanding of mechanical principles governing human movement, skill in use of a variety of measurement techniques commonly applied in biomechanics, an ability to analyze motor skill performance via cinematographic/computer methodologies and skill in prescriptively communicating results of analysis. Prerequisite: BIOL 011 or BIOL 051 or BIOL 061 or permission of instructor, and a lab fee is required.

HESP 163. Therapeutic Exercise. 4 Units.
This course is an application of the theory and principles associated with therapeutic exercise and the application of various rehabilitation techniques and procedures during the course of an athlete's rehabilitation to attain normal range of motion, strength, flexibility, and endurance. Prerequisite: HESP 133 or permission of instructor, and a lab fee is required.

HESP 165. Legal Aspects of Health, Exercise and Sport. 4 Units.
This course addresses legal issues and responsibilities relevant to professionals in the areas of health and exercise science, sport management, sport pedagogy and athletics. General legal principles supported by case law in such areas as negligence, contract law, constitutional law, antitrust laws and unlawful discrimination are offered. (PLAW)

HESP 167. Introduction to Sport Management. 4 Units.
This course is for beginning sport management students and students interested in sport business. Students study general academic, managerial, and business concepts related to sport and explore the variety of sport and fitness-related businesses and organizations within the public and private sectors. Potential career opportunities are considered.

HESP 169. Managing Sport Enterprises. 4 Units.
The purpose of this class is to introduce students to management and leadership in the sport industry. The unique attributes and structures of sport organizations will be explained. The course then covers multiple frames of organizational analysis and applies these to sport settings. In addition, students learn managerial and leadership skills and develop a management philosophy suited to the sport industry. Prerequisites: HESP 167 and HESP 187A.

HESP 171. Sport Economics and Finance. 4 Units.
This course is designed to address the respective areas of sport economics, finance, and labor relations. Both theoretical and practical aspects are explored. Students examine sport as a multi-billion dollar industry and analyze the role of sport within the larger socio-economic structure within the United States and internationally. Prerequisites: ECON 053 and BUSI 031. Junior standing.

HESP 172. Case Analysis in Sport and Fitness Management. 4 Units.
This course addresses the principles and practices pertinent to the development and operation of the private and commercial sport or fitness enterprise. The case study method focuses on designing and implementing the prospectus, feasibility studies, and the analysis of organizational effectiveness. Topics of special interest include the planning and controlling of resources, facility operations, and strategies for production and operations management.

HESP 173. Health Care Management and Professional Development. 4 Units.
This course is an in-depth study of the management of health care organizations related to finances, facilities, equipment, organizations structures, medical/insurance records, risk management, human relations, and personnel. Practical and conceptual skills are taught to help students focus on more efficient health care delivery. Also covered is the development of leadership skills, future trends in health care management, guidelines for designing effective work groups and managing conflict.

HESP 174. Sport Marketing and Promotions. 4 Units.
This course focuses on three main aspects of sports marketing. First, students gain the knowledge necessary to market sport products. Second, the course covers the manner in which sport is used as a marketing tool. Finally, students learn about the variety of forms of public relations that are used by sport organizations. In the process, students become familiar with the role of technology in sport marketing and public relations. Sophomore standing.
HESP 175. Sport Event and Facility Management. 4 Units.
This course is a comprehensive investigation into the principles needed to design, implement, and manage all types of sport events and facilities. Planning, logistics, risk management, human resource management, and marketing of events and facilities are given special attention. Opportunities for the application of these principles are also provided. Prerequisites: BUSI 107 and HESP 174. Junior standing.

HESP 177. Exercise Physiology II. 4 Units.
This course seeks to fulfill two main objectives: 1) To establish a foundational understanding of clinical exercise testing to examine cardiac, metabolic and respiratory pathology. 2) To provide a more in-depth examination of several basic exercise physiology concepts introduced in HESP 129. These include lactate kinetics, oxygen dynamics, pulmonary function and cardiovascular function during exercise and in response to training. Prerequisite: HESP 129 and upper division class standing. Lab fee required.

HESP 179. Introduction to Research. 4 Units.
This course covers the rationale for and status of professional research; research designs and their applicability to students’ disciplines, review, critique and synthesis of selected literature; development of research proposal and pretest of instrument.

HESP 182. Exercise Testing and Prescription. 4 Units.
This course is primarily designed to provide students with the hands-on training and theoretical background to competently assess levels of wellness/fitness in an “apparently healthy” (i.e. low risk) adult population. The topics and skills addressed include health screening protocols/risk stratification, use of informed Consent documents, as well as measurement protocols for the health-related components of fitness (i.e. cardiopulmonary fitness, muscular fitness, flexibility, body composition). These skills are then used to prescribe lifestyle and/or exercise modifications that result in individual progress toward a desired goal. The content of this course is highly focused toward the knowledge and skills required for taking the ACSM Fitness Specialist (HFS) certification exam. Prerequisite: HESP 147.

HESP 187. Internship in Health and Exercise Science. 4 Units.
This course provides an opportunity for qualifying students to work in an area of Health and Exercise Science that interests them. Prerequisites: HESP 151 or HESP 159 and permission of instructor.

HESP 187D. Sport Pedagogy Internship I. 2 Units.
This class involves the student completing a semester-long internship connected to their chosen field of sport pedagogy. This internship develops their evaluation skills and encourage the student to engage in reflexive teaching practices to better prepare themselves for the challenges and terrain of their post-graduation employment. Prerequisite: HESP 131.

HESP 187E. Sport Pedagogy Internship II. 4 Units.
This class involves the student completing a semester-long internship connected to their chosen field of sport pedagogy. This internship develops their evaluation skills and encourage the student to engage in reflexive teaching practices to better prepare themselves for the challenges and terrain of their post-graduation employment. Prerequisite: HESP 187D.

HESP 187F. Internship. 1-4 Units.

HESP 189. Practicum: Coaching. 1 or 2 Unit.
The practicum offers non-classroom experiences in activities related to Sports Sciences, under conditions determined by the appropriate faculty member. HESP 189 represents advanced practicum work involving increased independence and responsibility. Enrollment is limited to eight units maximum of HESP 089/189A, B, C, D, H, J, K offerings and no category within a course may be repeated for credit. A list of specific courses follows. Grading option is Pass/No Credit only.

HESP 189A. Practicum: Adapted Physical Education. 2 Units.
These courses provide advanced practicum work in Sport Medicine. See HESP 089 for subcategories and enrollment limitations. Prerequisite: HESP 169 with a “C-” or better.

HESP 189B. Practicum: Athletic Training III. 2 Units.
This is a clinical education course in the field of athletic training. It incorporates an experiential learning environment designed to prepare students for a career in athletic training. Advanced skills are introduced within the daily operations of the athletic training room and in the care of the athletes. Criteria for progression must be met before enrolling in subsequent practicum course. Prerequisite: HESP 089K.

HESP 189C. Practicum: Biomechanics. 2 Units.
These courses provide advanced practicum work in Sport Medicine. See HESP 089 for subcategories and enrollment limitations. Grading option is Pass/No Credit only.

HESP 189D. Practicum: Exercise Physiology. 2 Units.
These courses provide advanced practicum work in Sport Medicine. See HESP 089 for subcategories and enrollment limitations. Grading option is Pass/No Credit only.

HESP 189E. Practicum: Sport Pedagogy. 2 Units.
This course offers a supervised leadership experience in the elementary or secondary school setting. The student works as a physical education specialist and develops as well as conducts appropriate physical activity programs. Prerequisites: HESP 151 or HESP 159 and permission of instructor.

HESP 189F. Practicum: Coaching. 2 Units.
Students are assigned to an intercollegiate or interscholastic sports team for the semester and participate in practice sessions throughout the specific sport season. Written guidelines are developed cooperatively by the supervisor, coach and student. Prerequisites: HESP 139 and HESP 155.

HESP 189G. Practicum: Coaching. 2 Units.
Students will be assigned to an intercollegiate or interscholarship sports team for the semester and will participate in practice sessions throughout the specific sport season. Written guidelines will be developed cooperatively by the supervisor, coach and student. Prerequisites: HESP 139 and HESP 155.

HESP 189H. Practicum: Sports Law. 2 Units.
These courses provide advanced practicum work in Sport Medicine. See HESP 089 for subcategories and enrollment limitations. Grading option is Pass/No Credit only.

HESP 189J. Practicum: Kinesiology. 2 Units.
These courses provide advanced practicum work in Sport Medicine. See HESP 089 for subcategories and enrollment limitations. Prerequisite: HESP 133 with a "C-" or better. Grading option is Pass/No Credit only.
This is the fourth in a series of four consecutive clinical education courses in the field of Athletic Training. The course incorporates an experiential learning environment designed to prepare students for a career in Athletic Training. Advanced Athletic Training knowledge and skills will also be introduced within the daily operations of the Athletic Training Facility and your Clinical Assignment and in the care of patients. Prerequisite: HESP 189B.

**HESP 191. Independent Study. 1-4 Units.**

This class is a sequence of CAATE required courses designed to immerse students in a clinical athletic training setting. Students are introduced to intermediate skills within the daily operations of the athletic training room and in the care of the athletes. Discussion and reflection of sites and preceptors will also occur. Various medical and healthcare professionals will contribute to the course. Prerequisite: HESP 202A with a B- or better.

**HESP 192. Clinical Practicum II. 1 Unit.**

This class is the third in a sequence of CAATE required courses designed to immerse students in a clinical athletic training setting. Students develop advanced skills within the daily operations of the athletic training room and in the care of the athletes. Discussion and reflection of sites and preceptors will also occur. Various medical and healthcare professionals will contribute to the course. Prerequisite: HESP 202B with a B- or better.

**HESP 201A. Clinical Integration Proficiencies I. 1 Unit.**

This course will teach, review, and assess the proficiencies needed to become a Certified Athletic Trainer. The focus will be on use of athletic training equipment, first aid skills and therapeutic modalities. Discussion and reflection of sites and preceptors will also occur. Prerequisite: HESP 201B with a B- or better.

**HESP 195. Ethical Issues in Sport. 3 Units.**

The primary goal of this course is to enhance student awareness regarding their values, their evolving moral and ethical codes, and the ways of addressing moral problems. Students examine various ethical theories and questions encountered in the field of Sport Sciences. As part of this course, students need to identify necessary information from various sub-disciplines in order to make professional and ethical decisions. Senior standing.

**HESP 202B. Clinical Practicum II. 1 Unit.**

This class is the second in a sequence of CAATE required courses designed to immerse students in a clinical athletic training setting. Students are introduced to intermediate skills within the daily operations of the athletic training room and in the care of the athletes. Discussion and reflection of sites and preceptors will also occur. Various medical and healthcare professionals will contribute to the course. Prerequisite: HESP 202A with a B- or better.

**HESP 197. Independent Research. 1-4 Units.**

**HESP 202C. Clinical Practicum III. 1 Unit.**

This class is the third in a sequence of CAATE required courses designed to immerse students in a clinical athletic training setting. Students develop advanced skills within the daily operations of the athletic training room and in the care of the athletes. Discussion and reflection of sites and preceptors will also occur. Various medical and healthcare professionals will contribute to the course. Prerequisite: HESP 202B with a B- or better.

**HESP 201B. Clinical Integration Proficiencies II. 1 Unit.**

This course will teach, review, and assess the proficiencies needed to become a Certified Athletic Trainer. The focus will be on use of assessment, evaluation, and rehabilitation of lower extremities. Discussion and review of National Athletic Training Association competencies will also be covered. Prerequisite: HESP 201A with a B- or better.

**HESP 193. Special Topics. 1-4 Units.**

**HESP 202D. Clinical Practicum IV. 1 Unit.**

This class is the fifth in a sequence of CAATE required courses designed to immerse students in a clinical athletic training setting. Students integrate all mastery skills within the context of daily operations of the athletic training room and in the care of the athletes. Students will focus on professional development and go through final preparations for the NATA BOC examination. Discussion and reflection of sites and preceptors will also occur. Various medical and healthcare professionals will contribute to the course. Prerequisite: HESP 202C with a B- or better.

**HESP 201C. Clinical Integration Proficiencies III. 1 Unit.**

This course will teach, review, and assess the proficiencies needed to become a Certified Athletic Trainer. The focus will be on use of assessment, evaluation, and rehabilitation of upper extremities. Discussion and review of National Athletic Training Association competencies will also be covered. Prerequisite: HESP 201B with a B- or better.

**HESP 201D. Clinical Integration Proficiencies IV. 1 Unit.**

This course will teach, review, and assess the proficiencies needed to become a Certified Athletic Trainer. The focus will be on use of assessment, evaluation, and rehabilitation of general medical conditions, head, neck, and spine injuries. Discussion and review of National Athletic Training Association competencies will also be covered. Prerequisite: HESP 201C with B- or better.

**HESP 202A. Clinical Practicum I. 1 Unit.**

This class is a sequence of CAATE required courses designed to immerse students in a clinical athletic training setting. Students are exposed to an athletic training setting and are introduced within the daily operations of the athletic training room and in the care of athletes. Discussion and reflection of sites and preceptors will also occur. Various medical and healthcare professionals will contribute to the course.
HESP 212. Advanced Musculoskeletal Assessment (LE). 4 Units.
This course presents an in-depth study of musculoskeletal assessment of the lower extremity for the purpose of identifying (a) common acquired or congenital risk factors that would predispose an individual to injury and/or (b) musculoskeletal injury common to athletics or physical activity. Students receive instruction in obtaining a medical history, performing visual observation, palpating bones and soft tissues, and performing appropriate special tests for injuries and conditions of the foot, ankle, lower leg, thigh, hip, and pelvis. Prerequisite: HESP 211 with a B- or better or permission of instructor.

HESP 213. Advanced Musculoskeletal Assessment (UE). 4 Units.
This course presents an in-depth study of musculoskeletal assessment of the upper extremity, cervical spine, head and face for the purpose of identifying (a) common acquired or congenital risk factors that would predispose an individual to injury and/or (b) musculoskeletal injury common to athletics or physical activity. Students receive instruction in obtaining a medical history, performing visual observation, palpating bones and soft tissues, and performing appropriate special tests for injuries and conditions of the shoulder, upper arm, elbow, forearm, wrist, hand, fingers, thumb, head and face. Prerequisite: HESP 211 with a B- or better or permission of instructor.

HESP 214. Applied Therapeutic Exercise (LE). 4 Units.
This course is an application of the theory and principles associated with therapeutic exercise for the lower extremity. Focus is on the application of various rehabilitation techniques and procedures during the course of an athlete’s rehabilitation to attain normal range of motion, strength, and flexibility of the foot, ankle, lower leg, knee, thigh, hip, and pelvis. Prerequisite: HESP 211 with B- or better or permission of instructor.

HESP 215. Applied Therapeutic Exercise (UE). 4 Units.
This course is an application of the theory and principles associated with therapeutic exercise for the upper extremity, and face. Focus is on the application of various rehabilitation techniques and procedures during the course of an athlete’s rehabilitation to attain normal range of motion, strength, and flexibility of the shoulder, upper arm, elbow, forearm, wrist, hand, fingers, thumb, and face. Prerequisite: HESP 211 with a B- or better or permission of instructor.

HESP 220. Pathomechanics of Musculoskeletal Injury. 3 Units.
This course explores the structure, function, biomechanics, and dysfunction of the musculoskeletal system. Students will improve orthopedic evaluation. Attention will be given to correcting muscular imbalances and faulty movement patterns as well as developing functional movement patterns for athletes and active populations. Prerequisite: HESP 211 with B- or better or permission of instructor.

HESP 221. Assessment of General Medical Conditions. 3 Units.
This course provides a detailed knowledge of the non-orthopedic pathologies that can affect athletes. Maladies in the respiratory, cardiovascular, gastrointestinal, neurological, and dermatological systems will be presented. Students will become familiar with examination procedures and diagnostic equipment used to assess these conditions.

HESP 222. Head, Neck, and Spine Injuries. 3 Units.
This course provides a detailed investigation into the pathology and clinical diagnosis of musculoskeletal and neurological injuries of the head, cervical, thoracic, and lumbar spine. Focus will be on the acute management of concussions and spine injuries as well as treatment options. Best practices for minimizing risks of catastrophic injury and uses of protective equipment will be provided. Prerequisite: HESP 211 with B- or better.

HESP 223. Advanced Therapeutic Modalities. 4 Units.
This course is a lecture and laboratory experience designed to expose students to the theory, principles, techniques, and application of therapeutic modalities pertaining to the treatment of athletic or activity related injuries. Course will include investigation, discussion, and observation of the physiological effects, indications, contra indications, dosage and maintenance of each modality. Prerequisite: HESP 211 with B- or better or permission of instructor.

HESP 224. Clinical Pharmacology. 1 Unit.
This course introduces the medications and supplements used by and prescribed for active populations. Students also develop an awareness of the indications, contraindications, precautions, and interactions of medications used to treat illnesses and diseases.

HESP 227. Healthcare Administration and Management. 4 Units.
This course addresses the organizational and administrative aspects of providing health care to athletes and the physically active. The course will include in-depth study of finances, facilities, equipment, organizations, structures, medical/insurance records, risk management, human relations and personnel in health care organizations. Practical and conceptual skills are taught to help students focus on more efficient health care delivery. Development of leadership skills, future trends in health care management, guidelines for designing effective work groups and managing conflict is also covered.

HESP 228. Research Methods in Athletic Training. 4 Units.
This class is designed to develop research skills specific to the athletic training field. Students learn to collect, review, synthesize, and critically analyze scholarly research. Students also learn to create research questions and establish hypotheses, and they are exposed to a variety of data collection methods. In addition, students learn to apply appropriate techniques to interpret data and apply the results in athletic training settings. Special attention is given to the use of research in evidence-based practice. This class is for MSAT students only and is not a substitute for HESP 279.

HESP 229. Psychosocial Aspects of Athletic Training. 3 Units.
This course will provide students with a foundation of the psychological and sociocultural elements surrounding pain and athletic injuries. Psychosocial antecedents of injury will be presented as will psychological strategies that can assist the rehabilitation process. Social perspectives on pain and injury and social support during recovery will also be covered in the class.

HESP 233. Advanced Kinesiology. 4 Units.
This graduate seminar considers the musculoskeletal analysis of human movement, posture, exercise prescription, and rehabilitation. Prerequisite: HESP 133 or permission of instructor. Graduate standing.

HESP 235. Graduate Nutrition/Exercise Metabolism. 4 Units.
Students study the principles of nutrition as they relate to health and participation in sport or physical activity. The course includes calculation of energy needs and expenditures, and the role of carbohydrates, fats, protein, vitamins, minerals, and water in sport and physical activity.

HESP 237. Advanced Sport Psychology. 4 Units.
This course provides a detailed examination of the theories and concepts that explain how the human psyche affects sport performance. Particular emphasis is given to the application of these concepts for coaches and athletes.

HESP 239. Advanced Applied Sport Psychology. 4 Units.
This graduate seminar is designed for advanced students to explore theoretical concepts of psychology as they relate to individual and group behavior in physical activity environments.
HESP 241. Advanced Sociology of Sport. 4 Units.
This graduate seminar deals with theoretical concepts of sociology related to the American sport environment. This course uses a sociological perspective to provide an appreciation of sport as an integral part of our cultural dynamics. The relationship of sport and other social institutions such as media, economy, politics, and education are covered, as well as the relationship of sport and social stratification such as gender, race, and class.

HESP 242. Global Sports Worlds. 4 Units.
Like all social institutions in the United States, global forces are increasingly shaping the sports worlds we live in. Understanding this phenomenon is imperative for future practitioners with sport sciences. This course is designed to explore this relationship between sport and globalization processes. Students learn to identify the characteristics of the sport-globalization nexus and critically examine its consequences. Through a host of experiential learning opportunities, students develop a deeper understanding of the implications of global sports worlds in your field of study. The eight pre-trip meetings take place during the Spring semester (one per week from Spring break onwards). The trip to London is scheduled after these meetings each year. The students register for the class as a Spring course. Travel required. Prerequisite: HESP 279 with a "B-" or better or permission of the instructor. Graduate standing.

HESP 247. Advanced Exercise Physiology. 4 Units.
This course is an advanced study of physiological responses to exercise with emphasis on laboratory methods and procedures for testing and demonstrating these responses for research application. Lab fee is required. Prerequisites: HESP 147 and permission of the instructor.

HESP 248. Applied and Clinical Physiology. 4 Units.
This course is designed to study the fundamental principles of exercise testing and interpretation for high risk, healthy, and athletic populations. The course is structured to focus on the cardiovascular, metabolic, and pulmonary responses to aerobic exercise and implications for designing training programs to enhance health, fitness, and performance. This course serves as a foundation for clinical exercise science and the use of exercise testing in the study of cardiac, metabolic and respiratory pathology.

HESP 253. Advanced Adapted Physical Education. 4 Units.
This course provides the culminating learning experience for those teaching credential candidates who are completing the waiver program with an emphasis in adapted physical education. Lab fee required.

HESP 255. Advanced Motor Learning. 4 Units.
This graduate course examines both the information processing and dynamical systems approaches to the study of human motor behavior and skill acquisition. Content is theoretically and research based with a behavioral emphasis. Topics covered include: variability and motor control, visual control of action, the role of reflexes, task interference, limitations in information processing, effects of stress on performance, and the Schema theory. It is intended to provide students with an advanced understanding of the conceptual, functional properties of the motor system and human motor performance and their application to teaching, coaching, industrial and therapeutic settings.

HESP 257. Advanced Clinician in Sports Medicine. 4 Units.
This course integrates theory and practice and requires students to develop a research topic, consistent with an explicitly and narrowly defined area of interest. Prerequisite: Permission of instructor.

HESP 259. Professional Preparation in Sport Sciences. 4 Units.
This course is designed for the future professional practitioner who wishes to deliver an effective, meaningful clinical or educational experience to a diverse population. The course helps them sustain the experiences through the knowledge to conceive and plan meaningful programs, the administrative skill to produce an organizational structure within school and/or practicum that optimizes the impact of the program, and the creative energy to link the program to opportunities for children and adults. Students engage in an in-depth study of the research on teaching and the application of research-based knowledge to the teaching and clinical professions.

HESP 261. Advanced Biomechanics of Sport. 4 Units.
This course is an advanced study of mechanical principles which influence human movement. Both non-cinematographic and cinematographic/videogetic techniques are used to analyze and evaluate motor skills and errors in performance and critical evaluation of current research findings in biomechanics. Lab fee required. Prerequisite: an undergraduate course in kinesiology or biomechanics or permission of instructor.

HESP 265. Advanced Sports Law. 4 Units.
This course addresses legal issues and responsibilities relevant to professionals in the areas of sports medicine, sport management, sport pedagogy and athletics. General legal principles supported by case law in such areas as negligence, contract law, constitutional law, antitrust laws and unlawful discrimination are offered.

HESP 269. Advanced Management of Sport Enterprises. 4 Units.
The purpose of this class is to prepare graduate students to lead in the unique business environment of sport. The unique governance structure of intercollegiate athletics and professional sports is presented. Students then develop a multi-frame approach to management of sport organizations. Students also explore the subjective nature of leadership to develop a style best suited for sport. Emphasis is placed on the integration of applied research that uses leadership and management theories.

HESP 272. Advanced Case Analysis of Sport and Fitness Management. 4 Units.
This graduate seminar is designed to provide breadth and depth of topical knowledge beyond that covered in the introductory course.

HESP 274. Advanced Sport Marketing and Promotions. 4 Units.
This course provides an in-depth study of the unique nature of sport marketing that focuses on three areas. Students learn how to market sport products and events. The course explores the many mechanisms through which sport is used as a marketing tool. Finally, students learn to gain maximum benefit from the relationship between sport and the media.

HESP 275. Advanced Sport Management. 4 Units.
This class provides graduate students with the knowledge base necessary to lead the mega-events and manage multipurpose and single-use facilities common in sport. The first portion of the course is devoted to event planning, marketing and execution. The second part of the course focuses on planning, design and maintenance of sports facilities. Special attention is given to the environmental impact of sporting events and facilities.
HESP 279. Research Methods in Sport Sciences. 4 Units.
This in-depth evaluation of the various methods used in the disciplines of the sport sciences, includes experimental, descriptive, qualitative and historical approaches. Students learn the means of selecting a research problem and planning its solution as well as important considerations to regard in reviewing the literature. The course also includes an overview of proper form and style in research writing. Student must complete a fully developed Research Proposal as part of this course. Prerequisite: a course in statistics. Graduate standing.

HESP 287. Advanced Internship: Sport Medicine. 4 Units.
This course provides an opportunity for qualifying students to work in an area of sports medicine that interests them. Prerequisites: HESP 257 with a "C" or better and permission of instructor. Graduate standing. Grading option is Pass/No Credit only.

HESP 287A. Advanced Internship: Sport Management. 4 Units.
This course provides professional leadership experience for graduate students. Agency placement is based on student goals and professional leadership background. Grading option is Pass/No Credit only.

HESP 287B. Advanced Internship: Sport Management. 4 Units.
This course provides professional leadership experience for graduate students. Agency placement is based on student goals and professional leadership background. Grading option is Pass/No Credit only.

HESP 289A. Advanced Practicum: Sport Management. 4 Units.
This course is designed to provide students with a practical experience in the application of administrative theory. Prerequisite: HESP 169 or HESP 269 with a "B-" or better. Grading option is Pass/No Credit only.

HESP 289B. Advanced Practicum: Coaching. 2-4 Units.
This practicum offers non-classroom experiences in activities related to Sports Medicine, under conditions determined by the appropriate faculty member. HESP 189 represents advanced practicum work that involves increased independence and responsibility. Enrollment is limited to six units maximum of HESP 089/189A, B, C, D offerings and no category within a course may be repeated for credit. Grading option is Pass/No Credit only.

HESP 291. Independent Study. 1-4 Units.

HESP 293. Special Topics. 3 or 4 Units.

HESP 297. Independent Research. 1-4 Units.

HESP 299. Thesis. 4 Units.

Psychology Courses

PSYC 101. Research Methods and Statistics in Psychology I. 5 Units.
This course is the first in a two-course sequence required for the psychology major. This course will teach the student how to design, complete, analyze, interpret, and report empirical research used to test hypotheses derived from psychological theory or its application, and to be able to critically evaluate scientific research produced by others. Prerequisite: Fundamental Math Skills requirement. (GE3B)

PSYC 102. Research Methods and Statistics in Psychology II. 5 Units.
This course is the second in a two-course sequence required for the psychology major. This course will teach you how to design, complete, analyze, interpret, and report empirical research used to test hypotheses derived from psychological theory or its application, and to be able to critically evaluate scientific research produced by others. Prerequisite: PSYC 101 with a "C-" or higher.

PSYC 103. Statistical Inference in Behavioral Sciences. 4 Units.
Students examine the applications and limitations of statistical methods of inference in behavioral research. Topics include measurement, data collection, parameter estimation and confidence intervals, hypothesis testing, Type I and Type II errors and power. Parametric and non-parametric data analysis techniques and graphic analysis are studied and include chi square, t-test and analysis of variance. Students learn how to use "eyeball" estimation procedures to facilitate understanding of statistical concepts, and learn how to use spread sheet and statistical computer programs for data analysis. Prerequisite: MATH 003 or appropriate score on the Mathematics Placement Test. PSYC 103 (or MATH 035 or MATH 037) with a grade of C- or better is required for psychology majors. Sophomore standing. (GE3B)

PSYC 105. Experimental Psychology. 5 Units.
This course is an in-depth evaluation of the various methods used in the field of psychology. The course covers experimental design and statistical analysis appropriate to various designs and includes conducting reviews of research literature, writing research proposals and reports, and research ethics. All students use word processing and statistical analysis computer programs. All students complete an individual experimental research project. This course is required for psychology majors. Prerequisite: PSYC 103 or MATH 035 or MATH 037 with a grade of C- or better. Recommended: PSYC 031 and/or PSYC 053 taken in sophomore year. Sophomore standing.

PSYC 107. Psychology of Learning. 4 Units.
This course focuses on the scientific investigation of learning and behavior. Both experimental and related theoretical developments are considered, as well as applications of the basic principles of learning to issues of social significance. Prerequisite: PSYC 105 or permission of instructor.

PSYC 109. Biological Psychology. 4 Units.
This course investigates the relationship of the nervous system to mental processes and behavior. Lecture and laboratory exercises introduce current research and methodology, clinical application, and hands-on demonstration of this rapidly developing field. Topics include the evolution and development of the human brain, neuroanatomy and neural transmission, biological rhythms, sensory and motor systems, sleep, emotional control, brain damage and disease, and many others. Prerequisite: PSYC 105 with a "C-" or better, or permission of instructor.

PSYC 110. Psychoactive Drugs and Behavior. 4 Units.
This course is an intensive study of how drugs affect psychological processes and behavior. The course covers neuroanatomy, neuron physiology, basic psychopharmacological terminology, commonly used and recreational drugs, major psychotherapeutic drugs and the interaction between drug treatments and various psychotherapeutic and behavior change techniques. Prerequisite: PSYC 105 and/or PSYC 053 taken in sophomore year. Sophomore standing.

PSYC 111. Abnormal Psychology. 4 Units.
Students study the causes, classification and treatment of abnormal behavior. The class is of interest to any student who is curious about people and what they do, especially the unusual things that people do. The class addresses the distinction between being different and having a mental disorder, what we can change and what we cannot change, psychological testing, the DSM classification system, the role of genetic factors in abnormal behavior as well as the current status of empirically validated psychosocial and pharmacological treatments for mental disorders. The class is highly recommended for any student who aspires to go into clinical psychology, marriage family counseling, child psychology, forensic psychology, social work, or pharmacy. (GE1A, PLAW)
PSYC 115. Advanced Lab in Cognitive Psychology. 4 Units.
This course will focus on the in-depth exploration of one topic area within the field of cognitive psychology, with the specific topics varying by semester. This will be done through the reading and discussion of empirical research and review papers, and by conducting original research on the topic. Prerequisites: PSYC 015, PSYC 102 with a C- or better.

PSYC 117. Advanced Lab in Clinical Psychology. 4 Units.
This course is intended to give students a broad overview of the field of clinical psychology as well as experience grappling with some of the current controversies in the field. This course will cover the following topics as they relate to clinical psychology and clinical psychologists. Contemporary activities, employment settings, and subspecialties; foundations and early history; recent history; research design with a focus on single subject designs; major theoretical orientations (with a focus on behavioral and cognitive behavioral orientations); diagnoses, the DSM, and current controversies regarding both; psychological assessment including interviewing, observing behavior, cognitive and neuropsychological assessment tools; basic counseling skills and techniques; therapy interventions; ethical standards and guidelines; science and pseudoscience in clinical psychology; and, suggestions for those considering a doctoral degree in clinical psychology or a master's degree in counseling, family therapy, or social work. The course includes a lab component during which students will explore several of these topics in greater depth. Prerequisites: PSYC 017, PSYC 053, PSYC 102 with a C- or better, or permission of instructor.

PSYC 118. Advanced Lab in Child Clinical Psychology. 4 Units.
This lab is a more in depth look at topics within the field of clinical child psychology. Each time the course is taught, a specific topic of study such as parenting, child mental health, etc., will be the focus. The course relies heavily on becoming aware of the available research within the field of Clinical Child Psychology as well as more effectively accessing and understanding research in general. Experiential opportunities will be included. Prerequisites: PSYC 017, PSYC 102 with a C- or better.

PSYC 125. History and Systems of Psychology. 4 Units.
This senior capstone course traces the development of "modern psychology" from its birth in early philosophy to its founding as an independent discipline in the late 1800s to its current status with an emphasis on modern behaviorism and cognitive psychology as the two dominant theoretical systems in psychology. In addition, other modern developments such as evolutionary psychology and cognitive neuroscience are discussed. The course focuses on specific content areas and ideas in psychology and the individuals who are most credited with their development. Prerequisites: PSYC 105 and or permission of instructor. Junior standing. The course is required for psychology majors and it is recommended for the senior year.

PSYC 129. Advanced Lab in Developmental Psychology. 4 Units.
This course provides a survey of methods, theories, and findings most relevant to the contemporary study of human development. Major emphasis is placed on current directions in developmental research. Course content focuses on either an age period (e.g., early childhood, adolescence) or a topical area (e.g., emotional development, social relationships) to illustrate contemporary research questions about development and the methods used to address them. Observations may be required as part of a research project. Prerequisites: PSYC 029, PSYC 102 with a C- or better. (DVSY, ETHG)

PSYC 131. Adolescence and Young Adulthood. 4 Units.
This course is the psychosocial examination of the transition from childhood to adulthood. Topics include conceptual issues and moral development, sexual and personality changes, role conflicts and problems unique to adolescence. The material is selected to interest both majors who plan to work with adolescents and to students who want to better understand their own life cycle phase or their future role as parents of adolescents. Prerequisites: sophomore standing is required. (GE1A)

PSYC 133. Adulthood and Aging. 4 Units.
This course provides an overview of developmental issues that occur in the adult and aging population. Topics include developmental theories, research techniques, and the biological, psychological, and sociological aspects of aging. Some emphasis is placed on providing psychological services to the aging population. Some field experiences in nursing homes will be part of the course. Sophomore standing is required. (DVSY, GE1A)

PSYC 140. Psychology of Gender. 4 Units.
This course introduces students to psychological research on the experiences, behaviors, and abilities of men and women. A comparative approach is used to examine historical, contemporary, and cultural differences. Topics include gender differences and similarities in mental abilities, social behavior, mental health issues, and experiences of men and women in the workplace. Sophomore standing. (GEND)

PSYC 144. Psychological Assessment. 4 Units.
An overview of the statistical underpinnings of psychological tests which include reliability, validity, and test creation as well as an overview of the most commonly administered psychological tests and their appropriate applications and use. The ethics of test creation and administration as well as practical application of various assessment techniques are discussed. This class is recommended for students who plan to pursue graduate training in clinical psychology. Prerequisite: PSYC 103.

PSYC 152. Parenting. 4 Units.
This course discusses the role of parents in society as well as what is effective parenting. The course explores the available research on effective parenting as well as discussing and experiencing effective interventions to improve parenting skills. The course is intended to focus on both personal application as well as larger scale societal issues and interventions for others. Prerequisite: Sophomore standing.

PSYC 153. Advanced Lab in Behavioral Psychology. 4 Units.
This course focuses on both experimental and theoretical developments related to the study of learning and behavior, with an emphasis on applications of the basic principles of learning to understand issues of social significance. Topics include altruism, behavioral economics, behavioral research methods, choice, cooperation, concept formation, culture, drug use and abuse, free will, language, and self-control. Experimental methods and analyses are emphasized. A good understanding of Pavlovian and operant conditioning is necessary for this course. Prerequisites: PSYC 053, PSYC 102 with a C- or better.
PSYC 154. Child Mental Health. 4 Units.
Students study the casual factors that relate to the development of mental health problems in children. The emphasis is on the environmental issues associated with specific disorders that include behavioral learning histories, cognitive behavioral patterns, and family/parenting issues. Socio-cultural contributions to mental health are presented in addition to discussion of Evidence-Based Treatments for commonly diagnosed disorders and problems in childhood. Sophomore standing.

PSYC 155. Couples and Family Therapy. 4 Units.
This course is an introduction to couples and family therapy, theory, and practice. Behavioral psychology is used as the foundation, and students learn a broad systems perspective. Students are familiarized with the history of family therapy, as well as current family therapy strategies. Sophomore standing. (DVSY, ETHC)

PSYC 156. Behavioral Medicine/Health Psychology. 4 Units.
Students examine the overlapping fields of behavioral medicine and health psychology. The course focuses on a biopsychosocial model of illness, how this model compares to a more traditional biomedical model of illness, and the applications of a biopsychosocial model to the treatment and prevention of chronic illnesses. Topics include health promotion and medical compliance. This course may interest any student who aspires to become a health care professional in health psychology, clinical psychology, medicine, pharmacy, physical therapy, or nursing. Prerequisite: PSYC 053. Junior or Senior standing recommended.

PSYC 158. Behavioral Assessment. 4 Units.
An overview of behavioral assessment techniques is examined. Specific topics include data collection, inter-observer agreement, social validity, treatment integrity, functional assessment, stimulus preference assessment, indirect assessment techniques, and functional analysis procedures. Prerequisites: PSYC 053 and permission of instructor.

PSYC 162. Ethical Behavior. 4 Units.
This course will cover professional conduct and ethical behavior within the broad discipline of psychology, as well as the specific ethical and professional guidelines for the Behavior Analysis Certification Board (BACB®). This course addresses ethical decision-making, regulatory standards, and professional behavior in assessment, treatment, and research, in a variety of settings. Although this course will encompass a variety of disciplines and settings within psychology, primary attention will be given to those disciplines intersecting with the practice of applied behavior analysis and on those settings in which behavior analysts in practice are most likely to operate. Topics include accountability, confidentiality and informed consent, quality of services, quality of life, emergency management, research and academic settings, professional collaborations, boundaries, cultural competence, and ethical safeguards. Prerequisites: Junior standing or higher and permission of the instructor.

PSYC 166. Psychology of Personality. 4 Units.
This course is a survey of contemporary personality theories and research. The course focuses on the study of individual difference and how these differences are explained and measured using different personality assessment devices. This course is recommended for students who aspire to enroll in graduate study of clinical psychology, school psychology, marriage and family counseling, child development, or social work. It may interest those who want to learn more about themselves and the diversity of the species. Junior or Senior standing recommended.

PSYC 167. Psychology and the Law. 4 Units.
The course examines the contribution of psychology to the judicial system. Students explore both the role of forensic psychologists in criminal cases and applied psychological research designed to assist police and courts in their functions. Case studies illustrate forensic issues, such as examining serial killers and the uses and abuses of police interrogation in criminal cases. Topics include insanity and incompetency of defendants; psychopathy; problems with eyewitness testimony; issues involved with sentencing (including the death penalty); the mistreatment of children and adolescents by the justice system; and false confessions. Students visit actual course trials early in the semester. Not recommended for first-year students. (GE1A)

PSYC 169. Advanced Lab in Social Psychology. 4 Units.
Social psychology is the scientific study of the thoughts, feelings, and behaviors of individuals in social situations. This advanced seminar is intended for students who have successfully passed PSYC 101 and PSYC 102 (with at least a C), who have passed PSYC 069 (with at least a C), and for those who wish to gain a deeper understanding of major issues in the field. In this advanced topics course, we will read and discuss classic and contemporary theory and research in social psychology, with special attention given to how ideas develop. We will also choose one particular topic in social psychology to explore deeply. During this course you will also design and put into action a strategy that aims to eradicate a specific problem or enhance the quality of life on campus. Prerequisites: PSYC 069, PSYC 102 with a C- or better.

PSYC 183. Research Design. 4 Units.
This course is the design and analysis of research using single subject and group designs. Prerequisite: PSYC 105 and permission of instructor.

PSYC 187. Internship. 1-4 Units.
This internship course gives experiences in a work setting and is contracted on an individual basis. PSYC 187 represents advanced internship work that involves increased independence and responsibility. Students may register for only one course listed below in any semester and may receive no more than four units of credit for any of these courses. Pass/no credit is the only grading.

PSYC 189. Practicum. 4 Units.
The practicum offers non-classroom experiences in activities related to the curriculum under conditions that is determined by the appropriate faculty member. PSYC 189 represents advanced practicum work which involves increased independence and responsibility. Students may register for only one course listed below in any semester and may receive no more than four units of credit for any of these courses. Pass/no credit is the only grading.

PSYC 189A. Applied Psychology Practicum. 4 Units.
Students will acquire skills necessary to the application of principles of general psychology to solve personal, organizational and social problems while serving as assistants to faculty and professional psychologists.

PSYC 191. Independent Study. 1-4 Units.

PSYC 195. Seminar. 4 Units.

PSYC 197. Independent Research. 1-4 Units.

PSYC 207. Psychology of Learning. 4 Units.
This course focuses on the scientific investigation of learning and behavior. Both experimental and related theoretical developments are considered, as well as applications of the basic principles of learning to issues of social significance.
PSYC 220. Clinical Neuropsychology, 4 Units.
This course focuses on the relationship between human brain functioning and behavioral/psychological functioning. The primary emphasis is on the diagnosis and treatment of brain dysfunction in humans. Methods to evaluate clients for the presence of various types of brain dysfunction using psychological testing are studied in depth, along with corresponding neuroanatomy and neuropathology. Research techniques to develop a clearer understanding of both normal and abnormal brain functioning are studied. Permission of instructor.

PSYC 251. Behavioral Treatment/Applications, 4 Units.
This course focuses on the application of behavior analytic principles and methods in applied settings, with an emphasis on behavior change procedures, maintenance and generalization of behavior change, and emergency interventions. Topics addressed include the definition and characteristics of applied behavior analysis, selection and evaluation of intervention strategies, measurement of behavior, display and interpretation of behavioral data, and behavioral assessment. Additionally, basic behavioral principles, single-case experimental design, and ethical issues are discussed in the context of behavioral assessment and intervention. Open to graduate students only. Prerequisite: PSYC 053.

PSYC 253. Supervising and Teaching Behavior Changes, 2 Units.
This course introduces graduate students to the role of practicum supervisor and instructor. Under the supervision of the PSYC 053 course instructor, students develop, sustain, and evaluate their own interventions at pre-approved externship sites. Students conduct bi-weekly discussion groups that provide undergraduate students enrolled in PSYC 053 with additional resources for the course. Students meet weekly with the instructor to discuss practicum concerns and teaching responsibilities. Students gain practical experience carrying out independent research projects, which are often presented at research conferences, as well as teaching experience. All responsibilities are carried out under the supervision of the PSYC 053 instructor. Prerequisites: PSYC 251, PSYC 258, and permission of instructor.

PSYC 254. Child Mental Health, 4 Units.
Students study the causative factors related to the development of mental health problems in children. The emphasis is on the environmental issues associated with specific disorders, that include behavioral learning histories, cognitive behavioral patterns, and family/parenting issues. Socio-cultural contributions to mental health are presented in addition to discussion of Evidence-Based Treatments for commonly diagnosed disorders and problems in childhood.

PSYC 255. Couples and Family Therapy, 4 Units.
This course is an introduction to couples and family therapy, theory, and practice. Behavioral psychology is used as the foundation, and students learn a broad systems perspective. Students are familiarized with the history of family therapy, as well as current family therapy strategies.

PSYC 256. Behavioral Medicine/Health Psychology, 4 Units.
Students examine the overlapping fields of behavioral medicine and health psychology. The course focuses on a biopsychosocial model of illness, how this model compares to a more traditional biomedical model of illness, and the applications of a biopsychosocial model to the treatment and prevention of chronic illnesses. Topics include health promotion and medical compliance. This course is of interest to any student who aspires to become a health care professional in health psychology. clinical psychology, medicine, pharmacy, physical therapy, or nursing.

PSYC 258. Behavioral Assessment, 4 Units.
Students study an overview of behavioral assessment techniques is examined. Specific topics covered include data collection, inter-observer agreement, social validity, treatment integrity, functional assessment, stimulus preference assessment, indirect assessment techniques, and functional analysis procedures.

PSYC 262. Ethical Behavior, 4 Units.
This course will cover professional conduct and ethical behavior with the broad discipline of psychology, as well as the specific ethical and professional guidelines for the Behavior Analysis Certificate (BACB®). This course addresses ethical decision-making, regulatory standards, and professional behavior in assessment, treatment, and research, in a variety of settings. Although this course will encompass a variety of disciplines and settings within psychology, primary attention will be given to those disciplines intersecting with the practice of applied behavior analysis and on those settings in which behavior analysts in practice are most likely to operate. Topics include accountability, confidentiality and informed consent, quality of services, quality of life, emergency management, research and academic settings, professional collaborations, boundaries, cultural competence, and ethical safeguards. Prerequisites: Psychology major and graduate student status.

PSYC 278. Controversial Treatments in Applied Settings, 4 Units.
This graduate seminar covers the varieties and consequences of pseudoscience in the helping professions and how to avoid being influenced by them. The helping professions comprise a significant industry in the United States. This includes medicine, psychology (including behavior analysis), psychiatry, social work, and other forms of counseling. It includes community mental health centers, and other venues such as mental hospitals, crisis centers, and schools. Each profession has a code of ethics that calls on professionals to help clients, to avoid harm, to honor informed consent requirements and promote independence. Professional codes of ethics call on professionals to draw on practice-related research findings. What do we find if we look closely at their everyday behavior? To what extent do professionals and researchers honor obligations described in such codes of ethics? Although this course will encompass a variety of disciplines and settings, primary attention will be given to those disciplines intersecting the practice of applied behavior analysis and on those settings in which behavior analysts in practice are most likely to operate. Prerequisites: Psychology major and graduate student status.

PSYC 283. Research Design, 4 Units.
Students learn the design and analysis of research using single subject and group designs.

PSYC 285E. Behavior Analysis Internship I, 1 Unit.
This course provides clinical experience with the University of the Pacific Behavior Analysis Services Program. This course includes practice in conducting behavioral interventions, designing, implementing, and monitoring behavior analysis programs for clients. Students oversee the implementation of behavioral programs by others, attending behavioral program planning meetings, and reviewing program-relevant literature. Faculty and staff will observe interns engaging in activities in the natural environment at least once every two weeks, and provide specific feedback to interns on their performance. Multiple populations and sites will be available, including but not limited to, typically developing school-aged children in school and home settings, and individuals with psychiatric diagnoses and/or developmental disabilities in their homes or in community settings. Permission of instructor. Pass/No Credit grading only.
PSYC 285F. Behavior Analysis Internship II. 1 Unit.
This course provides clinical experience with the University of the Pacific Behavior Analysis Services Program. This course includes practice in conducting behavior analysis programs for clients, overseeing the implementation of behavioral programs by others, attending behavioral program planning meetings, and reviewing program-relevant literature. Faculty and staff observe interns engaging in activities in the natural environment at least once every two weeks, and they provide specific feedback to interns on their performance. Multiple populations and sites are available, including but not limited to, typically developing school-aged children in school and home settings, and individuals with psychiatric diagnoses and/or developmental disabilities in their homes or in community settings. Permission of instructor. Pass/No Credit grading only.

PSYC 289. Practicum. 1-4 Units.
PSYC 291. Graduate Independent Study. 1-4 Units.
PSYC 295. Graduate Seminar in Psychology. 4 Units.
PSYC 297. Graduate Independent Research. 1-4 Units.
Pass/No Credit grading only.
PSYC 297D. Independent Research. 1-4 Units.
PSYC 297E. Independent Research. 1-4 Units.
PSYC 299. Thesis. 2 or 4 Units.