

5820. Studies in Chemistry Education: Pedagogical Materials and Curriculum Development. 3 hours. (2:1) Examines national trends in science education curriculum, explores issues associated with materials development and testing as it applies to chemistry curriculum, and engages students in implementing the protocols used within the discipline focusing on chemical demonstration activities.

5840. Chemistry Behind the Elements. 3 hours. The fundamentals of the universe are based on principles of periodicity as revealed in the descriptive chemistry of the elements. Among the areas covered are the characteristics of the families of elements, when and where each element was discovered and by whom the discoveries were made. Also includes the impact these discoveries have had on society and technological advances. Pertinent industrial applications of the elements and materials derived from them are presented.

5880. Learning Theories in Chemistry Education. 3 hours. Survey of chemistry education and preparation for teaching and learning as they have developed, along with pertinent research findings and design from the current literature.

5900-5910. Special Problems. 1–3 hours each. For students capable of developing a problem independently through conferences and activities directed by the instructor. Problem chosen by the student with the consent of the instructor.

5920-5930. Research Problems in Lieu of Thesis. 3 hours each. An introduction to research; may consist of an experimental, theoretical or review topic. A paper conforming to recommendations outlined in the "Handbook for Authors of Papers in the Journals of the American Chemical Society" must be submitted for credit in each course.

5940. Seminar in Current Chemistry. 1 hour. Colloquia covering current topics in chemistry. Required of all full-time graduate students in each term/semester of graduate residence. Prerequisite(s): senior standing. May be repeated for credit. Pass/no pass only.

5950. Master's Thesis. 3 or 6 hours. May be repeated for credit. To be scheduled only with consent of department. 6 hours credit required. No credit assigned until thesis has been completed and filed with the graduate dean. Continuous enrollment required once work on thesis has begun.

5960. Science Institute. 1–6 hours. Courses for students accepted by the university for enrollment in special institute courses. May be repeated for credit, not to exceed a total of 6 hours in each course.

6010. Seminar for Doctoral Candidates. 3 hours. Demonstration of competence in a specific area of chemistry (analytical, organic, physical, inorganic) as evidenced by criteria established by the faculty of each discipline. May be repeated for credit. Six credit hours required.

6900-6910. Special Problems. 1–3 hours each. For doctoral students capable of developing a problem independently through conferences and activities directed by the instructor. Problem selected by the student with the consent of the major professor.

6940. Individual Research. 1–12 hours. Doctoral research of independent nature. May be repeated for credit. Pass/no pass only.

6950. Doctoral Dissertation. 3, 6 or 9 hours. To be scheduled only with consent of department. 12 hours credit required. No credit assigned until dissertation has been completed and filed with the graduate dean. Doctoral students must maintain continuous enrollment in this course subsequent to passing qualifying examination for admission to candidacy. May be repeated for credit.

6990-6991. Individual Research. 1–3 hours each. For postdoctoral fellows to further training and research experience in developing and solving research problems independently. Prerequisite(s): consent of department. May be repeated for credit. Pass/no pass only.

Chinese

see *Undergraduate Catalog*

Communication Studies

Communication Studies, COMM

5080. Introduction to Graduate Study and Research in Communication Studies. 3 hours. Broad perspective on communication studies content areas.

5085. Pedagogy and Communication. 3 hours. Study of pedagogy and communication. Examines philosophical, theoretical and practical issues faced by university instructors.

5180. Qualitative Research Methods in Communication. 3 hours. Qualitative research methodologies for communication studies research.

5185. Quantitative Research Methods in Communication. 3 hours. Experimental and quantitative techniques usable in research in communication.

5220. Organizational Communication. 3 hours. Study of the transmission of information and ideas within an organization with emphasis on the problems encountered in the business world.

5221. Crisis and Disaster Communication. 3 hours. Theoretical and practical examination of communication during crises and/or disasters. The role of communication in crisis/disaster planning, real-time crisis response, and post-crisis recovery and sensemaking.

5223. Communication and Aging. 3 hours. Examination of the role of communication in the aging process. Theories related to communication and aging are explored in a variety of contexts including intergenerational interactions, interpersonal relationships, family relationships, health care interactions, the workplace, mass media, political communication and cultural contexts.

5225. Interpersonal Communication. 3 hours. Contemporary research and theory in the study of communication patterns found at various stages of normal interpersonal interactions.

5226. Seminar in Health Communication. 3 hours. Introduction of communication theories and approaches related to health care in interpersonal, organizational and mass communication settings.

5227. Seminar in Intercultural Communication. 3 hours. Provides an opportunity to explore existing and emerging issues, theories and practices in intercultural communication.

5240. Rhetoric and Mediated Culture. 3 hours. Rhetorical consequences of mediated discourse on American culture. May include critical and cultural approaches for theorizing the rhetorical creation and maintenance of political identity, social movements, campaign or war rhetoric, theories of mediated persuasion and political influence, ideological and feminist criticism of media, the rhetorical aspects of popular culture, and theories of aesthetic rhetorics.

5260. Group Performance. 3 hours. Historical and contemporary theoretical approaches to group performance in performance studies and related disciplines; practical experience in scripting and directing group performance.

5265. Performance Methods. 3 hours. Survey of 20th- and 21st-century performance methods. Examination of performance methods as critical discourses and how they impact teaching, performance and the means of writing about performance.

5325. Communication Theory. 3 hours. A survey of scientific and humanistic perspectives on the communication process and social contexts in which it occurs.

5340. Rhetorical Methods. 3 hours. The use of critical and rhetorical theories in the investigation and evaluation of rhetorical acts and artifacts.

5345. Rhetorical Theory. 3 hours. An examination of significant rhetorical theories and theorists.

5360. Performance Criticism. 3 hours. Theories of value and evaluation in performance studies and their influence on the practice of criticism, in general, and performance criticism, in particular. Contexts range from everyday acts of evaluation to formal, public instances of criticism.

5365. Performance Theory. 3 hours. Historical and contemporary theoretical approaches to performance studies, including theories from related disciplines and their impact on theory and practice in performance studies.

5420. Seminar in Computer-Mediated Communication. 3 hours. Examination of communication in technologically mediated environments through principles derived from cognitive and social psychology. Emphasis on theory and research in computer-mediated communication with special emphasis on CMC as an area leading to original research.

5425. Gender and Communication. 3 hours. Examination of research and theory in gender and communication, investigating how communication structures gender and how gender affects communication.

5440. Public Address Studies. 3 hours. Research and theory in the critical interpretation and assessment of public discourse.

5460. Narrative Theory. 3 hours. Examination of theories of narrative and narrative structure and their significance. The study of narrative and nonnarrative phenomena, including fiction, drama, film and politics.

5480. Practicum. 3 hours. Training in the teaching of some aspect of communication. Under the supervision of a faculty member, the student prepares and presents instructional units, conducts class discussions and handles administrative matters peculiar to the type of course involved. No more than 3 hours may apply toward master's degree. Duties performed under teaching fellowships or graduate assistantships do not earn credit in this course.

5481. Graduate Internship. 3 hours. Supervised work in a job related to the student's major, professional field of study or career objective. Prerequisite(s): 9 graduate hours in communication; two letters of recommendation from professors in department; and consent of internship director.

5540. Freedom of Expression. 3 hours. Theories, statutes and cases involving the First Amendment guarantee of freedom of speech.

5560. History of Performance Studies. 3 hours. Philosophies, conventions and techniques that have contributed to the formation of contemporary performance theory. Examines performance approaches from classical to contemporary eras.

5625. Communication Consulting. 3 hours. Examination of organization communication consulting and of communication theorists and practitioners. Opportunities to develop and/or refine training and facilitating skills and unique models of communication consulting.

5640. Classical Rhetoric. 3 hours. Study of classical rhetorical texts, authors and concepts. Emphasis on philosophical, theoretical and pedagogical principles as the foundation for Western thought and education.

5740. Visual Rhetoric. 3 hours. Study of the effect and effectiveness of images in a number of contexts. An introduction to studies on visual culture, which includes topics such as iconography, memory studies, photojournalism and democracy, desire and the image, archiving, body politics, and spectatorship and the politics of viewing.

5820. Seminar in Communication Processes. 3 hours. Contemporary research and theory in communication processes. Rotating topics. May be repeated for credit as topics vary.

5840. Seminar in Rhetorical Studies. 3 hours. Contemporary research and theory in oral rhetorical studies. Rotating topics. May be repeated for credit as topics vary.

5860. Seminar in Performance Studies. 3 hours. Contemporary research and theory in performance studies. Rotating topics. May be repeated for credit as topics vary.

5880. Seminar in Communication Studies and Research. 3 hours. Rotating topics. May be repeated for credit as topics vary.

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5920-5930. Research Problems in Lieu of a Thesis. 3 hours each.

5950. Master's Thesis. 3 or 6 hours. To be scheduled only with consent of department. 6 hours credit required. No credit assigned until thesis has been completed and filed with the graduate dean. Continuous enrollment required once work on thesis has begun. May be repeated for credit.

Community Service

see Public Service