

member dissertation committee. Students must then pass a final oral examination, which deals primarily with the dissertation and is conducted by the dissertation committee.

**Normative Time to Degree** 15 quarters

## Graduate Courses

**SWSC 203 Surface Chemistry of Soils (4) W, Odd Years** Lecture, 4 hours. Prerequisite(s): CHEM 109 or CHEM 110A; ENSC 104; or consent of instructor. Quantitative description of the properties of and reactions at the soil-water interface including charge properties, the electric double layer, ion exchange, and surface complexation reactions. **Anderson**

**SWSC 204 Environmental Organic Chemistry (4)** Lecture, 4 hours. Prerequisite(s): CHEM 109 or CHEM 110A; CHEM 112A, CHEM 112B; or consent of instructor. ENSC 104 is recommended. Considers the properties and reactions of organic contaminants in soils and surface waters including partitioning, exchange, and transformation reactions. **Anderson**

**SWSC 208 Ecotoxicology (4)** Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): BIOL 005A, BIOL 005B, CHEM 112A, CHEM 112B; or consent of instructor. Introduction to the impact of chemicals upon ecological systems. Examination of the fate and effects of environmental chemicals in various hierarchies of biological organization to learn how to carry out precise and accurate assessments of ecological risk. Cross-listed with ENSC 208 and ENTX 208. **Schlenk**

**SWSC 211 Microbial Ecology (3) S, Even Years** Lecture, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Application of ecological principles to microbial communities. Emphasizes methods for analysis of diversity and community structure and statistical methods relating genetic and biochemical fingerprints to functional properties. Case studies explore applications for agriculture, disease biocontrol, and bioremediation of environmental contaminants. Cross-listed with MCBL 211. **Crowley**

**SWSC 213 Soil Mineralogy (3) W, Even Years** Lecture, 3 hours. Prerequisite(s): both CHEM 001C and CHEM 011C or both CHEM 01HC and CHEM 1HLC; GEO 001. ENSC 104 and ENSC 138/GEO 138 are recommended. Covers the composition, structure, and classification of minerals commonly found in soils. Focuses on the origin, occurrence, and properties of soil minerals in relation to chemical, pedologic, and geomorphic conditions. Includes theory of mineral identification techniques including X-ray diffraction, thermal and infrared analysis, and electron microscopy. **Graham**

**SWSC 213L Soil Mineralogy Laboratory (4) W, Even Years** Discussion, 1 hour; laboratory, 9 hours. Prerequisite(s): concurrent enrollment in SWSC 213. Training in methods of soil mineralogical analysis, including sample preparation, X-ray diffraction, electron microscopy, thermal analysis, infrared spectroscopy, and surface area analysis. Data interpretation and presentation. **Graham**

**SWSC 217 Vadose Zone Processes (4) W, Even Years** Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): ENSC 107, MATH 009B or MATH 09HB; or consent of instructor. Studies physical and mathematical descriptions of transient flow and transport processes in the vadose zone. Emphasizes numerical solutions to equations describing the movement of water, gas, contaminants, and heat including chemical and biological reactions. Explores mathematical models for direct and inverse solutions, spatial heterogeneity, and determination of soil hydraulic properties. Cross-listed with ENSC 217. **Simunek**

**SWSC 226 Soil Geomorphology (4) F** Lecture, 2 hours; laboratory, 6 hours; two Saturday field trips per quarter. Prerequisite(s): ENSC 138/GEO 138, GEO 162,

or equivalents. Examines the interaction of pedogenic and geomorphic processes during the Quaternary with an emphasis on the rate of these processes. Group research includes field data collection and analysis. May be taken Satisfactory (S) or No Credit (NC) with consent of instructor and graduate advisor. Cross-listed with GEO 226. **Graham, Kendrick**

**SWSC 232 Biogeochemistry (4) W, Odd Years** Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): graduate standing; consent of instructor. A study of the biogeochemical cycling and exchange of carbon and important nutrients (N, S, base cations) between the lithosphere, hydrosphere, and atmosphere. Quantitatively describes processes at scales ranging from local to global. Addresses modern concerns about water and atmospheric quality, including global climate change. Cross-listed with ENSC 232. **Parker**

**SWSC 299 Research for Thesis or Dissertation (1-12)** conference and research, variable time. Prerequisite(s): consent of a staff member. Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

## Professional Course

**SWSC 302 Teaching Practicum (1-4) F, W, S** Practicum, 4-12 hours. Prerequisite(s): graduate standing. Supervised teaching in Soil and Water Sciences or Environmental Sciences courses. Required for all teaching assistants in Soil and Water Sciences. Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

## Southeast Asian Studies Minor

**Subject abbreviation: SEAS**  
**College of Humanities, Arts, and Social Sciences**

Mariam Beevi Lam, Ph.D., Director  
Program Office, INTS 3114  
(951) 660-3365; [seatrip.ucr.edu](mailto:seatrip.ucr.edu)

The SEATriP Program at the University of California, Riverside—Southeast Asia: Texts, Rituals, Performance—brings together scholars who share an ongoing interest in the arts and humanities and are actively engaged with the languages and expressive cultures of Southeast Asia.

The Southeast Asian Studies minor is an interdepartmental program centered on the study of the arts and cultures of Southeast Asia. The scholars associated with the Program address regionally-specific texts, rituals and performances. They seek to develop better understandings of the forms and practices through which ideas and ideologies are creatively expressed, shaped and communicated within and among different societies of Southeast Asia as well as the Southeast Asian diaspora.

1. Lower-division requirements (8 units)

- a) Four (4) units from lower lower-division lecture courses on Southeast Asian literature and culture:
  - AST 049/HIST 046/SEAS 047, AST 062/CPLT 062, AST 063/CPLT 063, AST 064/MCS 049/VNM 064, AST 065
- b) Four (4) units chosen from above or from one of the Southeast Asian languages (Vietnamese/Indonesian/Tagalog).

2. Upper-division requirements (16 units):

- a) Sixteen (16) units in Southeast Asian literature and culture chosen from
  - ANTH 126/AST 123/ DNCE 123/ MUS 123, ANTH 136, ANTH 140I, ANTH 176/AST 127/DNCE 127/ETST 172/MUS 127, AST 126/HIST 125/SEAS 185, AST 129/HIST 186/SEAS 186, AST 160/HIST 184/SEAS 184/VNM 184, AST 161, AST 162/HIST 167/SEAS 162/VNM 162, AST 163/CPLT 163, AST 164/VNM 164, AST 165 (E-Z)/VNM 165 (E- Z)/GSST 165(E-Z), AST 166/CPLT 166/VNM 166, AST 167/CPLT 167, AST 168/MUS 168, AST 170/MUS 170, AST 187/MCS 167, AST 189/HIST 189/SEAS 189/VNM 189, CPLT 142V/GSST 142V, CPLT 173V/MCS 173V, DNCE 180J, ENGL 144J/MCS 144J, ETST 133, ETST 137/SEAS 137, ETST 143A, ETST 143B, MCS 123/GSST 124, MCS 142/GSST 122, RLST 145/SEAS 145, RLST 149, RLST 150
- b) No more than Four (4) units may count from performance ensemble courses.

## Southeast Asian Studies Graduate Program

**Subject abbreviation: SEAS**  
**College of Humanities, Arts, and Social Sciences**

Mariam Beevi Lam, Ph.D., Director  
Program Office, INTS 3114  
(951) 660-3365; [seatrip.ucr.edu](mailto:seatrip.ucr.edu)

**Committee in Charge**

Muhamad Ali, Ph.D. (Religious Studies)  
David Biggs, Ph.D. (History)  
Charmaine Craig, M.F.A. (Creative Writing)  
Lan Duong, Ph.D. (Media & Cultural Studies)  
Weihsin Gui, Ph.D. (English)  
Tamara Ho, Ph.D. (Gender and Sexuality Studies)  
Mariam Beevi Lam, Ph.D. (Comparative Literature and Foreign Languages)  
René T.A. Lysloff, Ph.D. (Music)  
Hendrik M.J. Maier, Ph.D. (Comparative Literature and Foreign Languages)  
Sally A. Ness, Ph.D. (Anthropology)  
Maria Sarita See, Ph.D. (Media & Cultural Studies)  
Christina Schwenkel, Ph.D. (Anthropology)  
Deborah A. Wong, Ph.D. (Music)

## Graduate Program

The Master's Program in Southeast Asian Studies is an interdepartmental program centered on the study of the arts and cultures of Southeast Asia and its diasporas. To understand Southeast Asia as a region, students need to make sense of and engage with its diverse expressive forms of culture (including visual arts, literature, and performance) which are crucial in building and maintaining individual as well as group identity both within and across national or ethnic boundaries.

This program is designed for students with a strong interest in Southeast Asia, including those already admitted or enrolled in

another graduate program. Students can be concurrently enrolled in both the Southeast Asian Studies M.A. program and another graduate degree program. Students may also apply concurrently for the Southeast Asian Studies M.A. - Ph.D. Track in Anthropology, Comparative Literature or History.

**Admission** All applicants must fulfill the standard admission requirements as established by the Graduate Division. Additionally, applicants must submit a Statement of Purpose to indicate a serious interest in Southeast Asian Studies (or a specific country or area in this region) as well as a writing sample (such as a past term paper or course essay) to demonstrate basic skills of scholarship.

**Foreign Language** Students must acquire (or increase) a distinct level of proficiency in at least one language relevant to Southeast Asian Studies prior to beginning research for the thesis and no later than the fifth quarter in the program. The required proficiency can be demonstrated by way of an exam or by completing one year of course work with a "B" or better.

International students from Southeast Asia may use their native language to fulfill this requirement.

**Course Work** All students are required to pass the Proseminar in Southeast Asian Studies (SEAS 200) with a "B" or better. Additionally, students must pass (with a "B" or better) four of the following six seminar courses:

- SEAS 201 Southeast Asian performance
- SEAS 202 Southeast Asian religions
- SEAS 203 Southeast Asian cultures
- SEAS 204 History of Southeast Asia
- SEAS 205 Literatures of Southeast Asia
- SEAS 206 Media in Southeast Asia

In addition, students can select four other graduate seminars or approved upper division undergraduate courses in accordance with their main field of interest and after approval by the Graduate Advisor and the student's Thesis Committee. A total of 40 units of coursework, including thesis, are required for the degree in Southeast Asian Studies.

Students concurrently enrolled in another graduate program may, when appropriate, include units earned in that program toward the 40 units of the M.A. in Southeast Asian Studies. However, there must be at least 36 units uniquely applied to the Southeast Asian Studies degree.

**Plan I (Thesis)** Students enrolled in the Southeast Asian Studies Graduate Program (for the terminal M.A.) must submit an essay (thesis) of 50-70 pages reflecting original research, written under the supervision of a member of the program who also functions as the chair of their Thesis Committee. At the beginning of the second year students should write a research proposal outlining their research project. Approximately ten pages in length this proposal should describe the aims of the research and provide a broader

theoretical framework. After this is approved students begin to conduct individual research in the field or in the library. Students must enroll in a minimum of 4 units of Thesis Study (SEAS 299) or Directed Research (SEAS 297) under the supervision of a Southeast Asian Studies faculty. Before filing the thesis with the Graduate Division students must pass a formal oral examination.

#### Plan II (Comprehensive Exam)

Students concurrently enrolled in another degree program requiring an M.A. thesis may (with the approval of the Southeast Asian Studies faculty) be awarded the M.A. degree by passing a comprehensive examination.

#### University Requirements

All master's students must be enrolled for at least three quarters to fulfill the University residency requirement and must hold at least a 3.00 GPA in all upper division and graduate level course work related to the degree. A minimum of 40 units must be completed of which 36 must be graduate level (200 level) or approved upper division undergraduate (100 level) and apply only to the M.A. in Southeast Asian Studies.

**Normative Time to Degree** Two years

## Lower-Division Courses

**SEAS 047 Introduction to Southeast Asian History (4)** Lecture, 3 hours; extra reading, 3 hours. Introduces major themes and events in Southeast Asian history. Covers from prehistory to contemporary events in the region. Develops basic historical approaches to understanding contemporary trends, such as the spread of world religions, regional differences and connections, trading patterns, cultural forms, and historically important sites. Cross-listed with AST 049 and HIST 046.

**SEAS 062 Introduction to Southeast Asian Literature (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): none. An introduction to modern and contemporary Southeast Asian literature and culture with a focus on individual national histories. Explores the relationship between aesthetics, politics, and academic scholarship. Readings are in translation; classes conducted in English. Cross-listed with AST 062 and CPLT 062.

**SEAS 063 Reading Southeast Asian Stories (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): none. An introduction to the modern short story in Southeast Asia with a focus on literariness and the act of reading. Readings are in translation; classes conducted in English. Course is repeatable as content changes to a maximum of 8 units. Cross-listed with AST 063 and CPLT 063.

**SEAS 064 Introduction to Vietnamese and Diasporic Film Culture (4)** Lecture, 3 hours; screening, 3 hours. Prerequisite(s): none. Engages in critical viewing strategies and analytical visual critique. Explores the revival of film production in Vietnam following the Vietnam War, with a focus on the means of production, state control, and international distribution. Readings are in translation; classes conducted in English. Cross-listed with AST 064, MCS 049, and VNM 064.

**SEAS 065 Introduction to Southeast Asian Cultures (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): none. An introduction to the world of Southeast Asia with an emphasis on aspects of local cultures. Cross-listed with AST 065.

## Upper-Division Courses

**SEAS 136 Anthropological Perspectives on Gender in Southeast Asia (4)** Lecture, 3 hours; outside research, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. Examines the intersections of gender, power, and sexuality in post-colonial Southeast Asia. Revisits early ethnographic claims of gender equality. Addresses current anthropological literature on the effects of colonialism, capitalism, and globalization on gender roles and relations within national and transnational contexts. Cross-listed with ANTH 136.

**SEAS 137 The Vietnamese Americans: The Refugee and Immigrant Experience (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. Focuses on the Vietnamese American experience in contemporary society. Emphasizes the relationship of Vietnamese Americans to the larger society and on intergenerational strains and conflicts. Topics include socioeconomic and educational problems, family, religion, and the relationship between Vietnamese Americans and other ethnic groups. Cross-listed with ETST 137.

**SEAS 143A Critical Filipino(a) Studies: Histories and Legacies of U.S. Conquest, Colonialism, and Empire (4)** Lecture, 3 hours; term paper, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. Critically examines and theorizes the historical impact and legacies of U.S. conquest and colonialism in the Philippines. Analyzes the origins of Filipino American civic existence and its links to histories of U.S. racial formation, racialized industrialization, and racialized frontier warfare. Cross-listed with ETST 143A.

**SEAS 143B Critical Filipino(a) Studies: Interrogating the Filipino American Present (4)** Lecture, 3 hours; term paper, 3 hours. Prerequisite(s): ETST 143A/SEAS 143A; upper-division standing or consent of instructor. Critically analyzes the emergence of Filipino American community and identity in relation to the U.S. emancipation of the Philippines and the complex restructuring of a neocolonial and imperial relation. Examines the theoretical and conceptual premises of Filipino Americanism through counterhegemonic social movements, cultural production, and identity formation. Cross-listed with ETST 143B.

**SEAS 145 Buddhism in Southeast Asia (4)** Lecture, 3 hours; outside research, 3 hours. Prerequisite(s): RLST 106 or consent of instructor. Explores various texts, magical practices, forms of meditation, rituals, and beliefs of ancient and modern Buddhism, focusing on the ways in which they are transformed by nuns, monks, and the laity in Burma, Cambodia, Laos, Thailand, and California. Cross-listed with RLST 145.

**SEAS 149 Southeast Asian Religions (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): one Religious Studies course or upper-division standing or consent of instructor. Introduces aspects of religion in various Southeast Asian countries including Indonesia, Malaysia, Thailand, Cambodia, Vietnam, and the Philippines. Provides contextualized readings featuring historical, anthropological, literary, and other disciplinary perspectives. Cross-listed with RLST 149.

**SEAS 150 Islam in Southeast Asia (4)** Lecture, 3 hours; individual study, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. Introduces the religious, intellectual, and cultural history of Muslim Southeast Asia. Includes Indonesia, Malaysia, and Brunei, as well as minority communities in Singapore, Thailand, Cambodia, and the southern Philippines. Examines a series of contextualized readings in translated primary sources. Approaches texts from historical, anthropological, literary, and other disciplinary perspectives. Cross-listed with RLST 150.

**SEAS 161 Translating Modern Southeast Asian Texts (4)** Lecture, 3 hours; term paper, 1.5 hours; written work, 1.5 hours. Prerequisite(s): upper-division

standing; knowledge of one Southeast Asian language is recommended. An introduction to translating modern Southeast Asian texts into English. Presents translations of texts from Vietnam, Indonesia, and the Philippines in a context of theory. Materials are in English. Course is repeatable as content changes to a maximum of 8 units. Cross-listed with AST 161.

**SEAS 162 Vietnamese Literary History (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing. A historical analysis of Vietnamese literature from its oral tradition to contemporary fiction. Follows the formation of the nation-state and the subsequent struggles with the Chinese, French, Japanese, and Americans. No knowledge of Vietnamese required. Readings are in translation or bilingual editions. Classes are conducted in English. Cross-listed with AST 162, HIST 187, and VNM 162.

**SEAS 163 Nationalism and the Novel (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. An introduction to the novel and its role within nationalism as a representative summary or mirror of the nation. Cross-listed with AST 163 and CPLT 163.

**SEAS 164 Vietnamese American Culture (4)** Lecture, 3 hours; written work, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. A study of the pervasive aspects of Vietnamese American culture. Includes shared histories, acculturation patterns, class diversity, identity struggles, community-building literary and cultural production, youth issues, and cultural survival. Also introduces foundational literature, visual culture, and scholarship in the field. Cross-listed with AST 164 and VNM 164.

**SEAS 165 (E-Z) Themes in Vietnamese Literature (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. An exploration of Vietnamese literature in translation as seen through the lens of a particular theme or issue. Focuses on the implications of gender and sexuality on nation formation. All materials are read or viewed in English. E. Women and War. Cross-listed with AST 165 (E-Z), VNM 165 (E-Z), and GSST 165 (E-Z).

**SEAS 166 Vietnam and the Philippines (4)** Lecture, 3 hours; written work, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. An introduction to the comparative national histories of Vietnam and the Philippines by way of great literary works in various genres including poetry, short fiction, and novels. All materials are read in English. Cross-listed with AST 166, CPLT 166, and VNM 166.

**SEAS 167 Postcolonial Literature and Criticism in Southeast Asia and South Asia (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. Explores how the theoretical concepts of postcolonial criticism inform and challenge the literature of Southeast Asia and South Asia, as the literature itself pushes the limits of the criticism. Addresses themes of nation, identity, space, gender, home, diaspora, alterity, history, sexuality, transnationalism, neocolonialism, tourism, and education. Cross-listed with AST 167 and CPLT 167.

**SEAS 172 Gender in Southeast Asian Diasporic Literature and Film (5)** Lecture, 3 hours; screening, 3 hours; written work, 1 hour; extra reading, 2 hours. Prerequisite(s): upper-division standing or consent of instructor. Focuses on former Indochinese refugees who are producing literature and films in the United States and France. Examines how the perception of Indochina has been constructed, particularly how the region has been gendered female in the colonial imaginary. Explores the return of Southeast Asian immigrants to the Western gaze. Cross-listed with MCS 142 and GSST 122.

**SEAS 175 Asian American Women: Writing the Self in Literature and Film (4)** Lecture, 3 hours; screening, 1 hour; written work, 1 hour; extra reading, 1 hour. Prerequisite(s): upper-division standing or consent of instructor. Analyzes Asian American autobiographies

and films written and directed by women. Explores why the genre of autobiography is enabling and contentious within Asian American women's writings. Examines films to see how such women filmmakers contend with memory, gender, and identity. Cross-listed with MCS 123 and GSST 124.

**SEAS 177 Vietnamese and Overseas Vietnamese Cinema (4)** Lecture, 3 hours; screening, 3 hours. Prerequisite(s): MCS 020 or upper-division standing or consent of instructor. Explores how Vietnamese people and the Vietnamese diaspora seek to imagine a sense of community in the postwar era through contemporary film and video. Examines the thematics of return, longing, and exile. Reviews some of the texts' bold expressions of gender, sexuality, and identity. Cross-listed with AST 187 and MCS 167.

**SEAS 184 The Vietnam Wars (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. An introduction to Vietnamese history in the twentieth century. Covers the three Indochina wars (1945-1986) from different Vietnamese perspectives. Topics include experiences during French colonial rule; the anticolonial movements; periods of French and American military involvement up to 1975; the postwar society; and the post-*doi moi* society. Cross-listed with AST 160, HIST 184, and VNM 184. Credit is awarded for only one of the following: AST 160/HIST 184/SEAS 184/VNM 184 or AST 160S/HIST 184S/SEAS 184S/VNM 184S.

**SEAS 184S The Vietnam Wars (5)** Lecture, 3 hours; discussion, 1 hour; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. An introduction to Vietnamese history in the twentieth century. Covers the three Indochina wars (1945-1986) from different Vietnamese perspectives. Topics include experiences during French colonial rule; the anticolonial movements; periods of French and American military involvement up to 1975; the postwar society; and the post-*doi moi* society. Cross-listed with AST 160S, HIST 184S, and VNM 184S. Credit is awarded for only one of the following: AST 160/HIST 184/SEAS 184/VNM 184 or AST 160S/HIST 184S/SEAS 184S/VNM 184S.

**SEAS 185 Southeast Asia, Prehistory to 1800 (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. Covers the major Southeast Asian historical periods and cultures. Includes prehistory, classical kingdoms, and early modern trading states. Considers the role of ancient stories, religious systems, technologies, and art forms in forming traditional Southeast Asian identities, as well as the influences on these identities from outside the region. Cross-listed with AST 126 and HIST 185.

**SEAS 186 Modern Southeast Asia, 1800 to Present (4)** Lecture, 3 hours; extra reading, 3 hours. Prerequisite(s): upper-division standing or consent of instructor. Explores the formation of modern Southeast Asian nations and cultures since 1800. Compares colonial and postcolonial experiences in the region. Studies the formation of nationalist movements and the relationship of nationalist history with traditional and local histories. Considers the role of the individual, modern media, and global trade in the near-present. Cross-listed with AST 129 and HIST 186.

**SEAS 189 Encountering Vietnam (5)** Lecture, 6 hours; tutorial, 6 hours; project, 6 hours. Prerequisite(s): upper-division standing or consent of instructor. Focuses on literary and historical accounts of Vietnam. Utilizes translated travel writings from different genres and eras. Proficiency in Vietnamese not required. Taught in Vietnam and offered only in summer. Cross-listed with AST 189, HIST 189, and VNM 189.

emphasis on cultural aspects, embedded in their historical context. Materials are in English. Course is repeatable as content changes to a maximum of 12 units. Cross-listed with CPLT 200.

**SEAS 202 Southeast Asian Religions (4)** Seminar, 3 hours; extra reading, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Discusses different and dynamic aspects of religion in various Southeast Asian countries, including Indonesia, Malaysia, Thailand, Cambodia, Vietnam, and the Philippines. Explores contextualized readings featuring historical, anthropological, literary, and other disciplinary perspectives on this diverse region. May be taken Satisfactory (S) or No Credit (NC) with consent of instructor and graduate advisor. Course is repeatable as topic changes up to 8 units.

**SEAS 203 Southeast Asian Cultures (4)** Seminar, 3 hours; extra reading, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Surveys ethnographic literature on Southeast Asian cultures, with an emphasis on contemporary research. Covers anthropological approaches to the study of text, ritual, and performance practices; intercultural dynamics; the impact of colonialism and nationalism on traditional cultures; and globalization. May be taken Satisfactory (S) or No Credit (NC) with consent of instructor and graduate advisor. Cross-listed with ANTH 203.

**SEAS 204 Approaches to Southeast Asian History (4)** Seminar, 3 hours; extra reading, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Introduces students to central historical problems, historiographical debates, materials, and theoretical approaches in Southeast Asian history. Readings each week focus on a different theme. Course is repeatable to a maximum of 8 units. Cross-listed with HIST 242.

**SEAS 205 Literature of Southeast Asia (4)** Seminar, 3 hours; extra reading, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Explores themes and theories related to understanding literature and literary culture in Southeast Asia, insisting that the space of literature reaches beyond the text to include all disciplines. Students critically read, engage in, and question discourses of nationhood, identity, loss, mourning, history, and memoir. Course is repeatable as content changes to a maximum of 12 units. Cross-listed with CPLT 205.

**SEAS 206 Southeast Asian Diasporic Literature and Film (4)** Seminar, 3 hours; extra reading, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Explores the contemporary works by Southeast Asian immigrants within the United States and France. Emphasizes the concept that the dynamic production of culture is a negotiation of power and an expression of resistance. Provides an interdisciplinary framework by utilizing historical as well as theoretical works to contextualize the cultural productions. May be taken Satisfactory (S) or No Credit (NC) with consent of instructor and graduate advisor. Course is repeatable as content changes to a maximum of 12 units.

**SEAS 243A Research Seminar in Southeast Asian History (4)** Seminar, 3 hours; outside research, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Discusses Southeast Asian topics from regional, comparative, and local perspectives. May be taken as a one- or two-quarter course (HIST 243A/SEAS 243A, HIST 243B/SEAS 243B). Graded In Progress (IP) until the last quarter is completed, at which time a final grade is assigned. After completing both HIST 243A/SEAS 243A and HIST 243B/SEAS 243B, students may repeat the sequence once for credit; total credit for each course may not exceed 8 units. Cross-listed with HIST 243A.

**SEAS 243B Research Seminar in Southeast Asian History (4)** Seminar, 3 hours; outside research, 3 hours. Prerequisite(s): graduate standing or consent of instructor; HIST 243A/SEAS 243A. Discusses Southeast Asian topics from regional, comparative, and local perspectives. Students produce a substantial research

## Graduate Courses

**SEAS 200 Topics in Southeast Asian Studies (4)** Seminar, 3 hours; written work, 2 hours; term paper, 1 hour. Prerequisite(s): graduate standing or consent of instructor. An introduction to the world of Southeast Asia and the scholarly discussions about it, with an

paper that continues their work from HIST 243A/SEAS 243A. May be taken as a one- or two-quarter course (HIST 243A/SEAS 243A, HIST 243B/SEAS 243B). After completing both HIST 243A/SEAS 243A and HIST 243B/SEAS 243B, students may repeat the sequence once for credit; total credit for each course may not exceed 8 units. Cross-listed with HIST 243B.

**SEAS 290 Directed Studies (1-6)** Individual study, 3-18 hours. Prerequisite(s): consent of instructor and graduate advisor. Directed study to meet special curricular needs. Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

**SEAS 292 Concurrent Analytical Studies in Southeast Asian Studies (1-4)** Individual study, 3-12 hours. Prerequisite(s): graduate standing; consent of instructor and graduate advisor. Taken concurrently with a 100-series course, but on an individual basis. Devoted to research, criticism, and written work at the graduate level related to the 100-series course. Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

**SEAS 297 Directed Research (1-6)** Outside research, 3-18 hours. Prerequisite(s): consent of instructor; graduate standing. Individualized research under the sponsorship of specific faculty members. Graded Satisfactory (S) or No Credit (NC). Course is repeatable to a maximum of 12 units.

**SEAS 299 Research for the Thesis (1-12)** Thesis, 3-36 hours. Prerequisite(s): consent of thesis director. Research and preparation for the thesis. Graded Satisfactory (S) or No Credit (NC). Course is repeatable.

## Statistics

**Subject abbreviation: STAT**

**College of Natural and Agricultural Sciences**

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### Professors

Barry C. Arnold, Ph.D.  
Xinping Cui, Ph.D.  
Subir Ghosh, Ph.D.  
Daniel R. Jeske, Ph.D.

### Professors Emeriti

Robert J. Beaver, Ph.D.  
D. V. Gokhale, Ph.D.  
Keh-Shin Lii, Ph.D.  
S. James Press, Ph.D.  
Christopher A. Robertson, Ph.D.  
David J. Strauss, Ph.D.

### Associate Professors

James M. Flegal, Ph.D.  
Jun Li, Ph.D.  
Weixin Yao, Ph.D.

### Assistant Professors

Shujie Ma, Ph.D.  
Shemra Rizzo, Ph.D.

\*\*

### Lecturers

Analisa Flores, Ph.D.  
Linda M. Penas, Ph.D.  
Jill Smith, M.S.

### Lecturer Emerita

Barbara Beaver, M.S.

## Major

The Department of Statistics is concerned with teaching, research, and statistical consulting. The courses offered present a comprehensive spectrum of statistical and probability theory, in so far as such theory is necessary for the understanding and analysis of observational data. The applications of the theory delineated in the courses may be made in any field of experience. Laboratory classes in which examples related to the student's actual field of interest are worked out, play an essential part. The department offers both B.A. and B.S. degrees in Statistics as well as a B.S. in Statistics with options in Statistical Computing and Quantitative Management; the M.S. degree in Statistics; and the Ph.D. degree in Applied Statistics.

The courses STAT 040, STAT 048, STAT 100A, STAT 100B, STAT 104/BUS 104, STAT 110, STAT 130, STAT 140, STAT 146, and STAT 155 are intended for students of other departments who wish a knowledge of statistical techniques. Some of them may be taken as electives by statistics majors. The objective of these courses is to acquaint the student with the elements of statistics with only the necessary amount of mathematical training.

STAT 147 and STAT 157 are computer-oriented courses intended for students who would like to learn about computer programming in the most important languages and who would like to learn about statistical computing.

**Transfer Students** Students transferring to the Statistics major must complete courses comparable to the following one-year sequence before they transfer:

1. First-year calculus, equivalent to MATH 009A, MATH 009B, MATH 009C, each course completed with a grade of "B-" or better.

## Computing Laboratories

The department has two large undergraduate Windows-based teaching laboratories. These laboratories provide users access to a wide variety of statistical software packages including SAS, R, Minitab, and SPSS, and other popular software packages including Mathematica, Adobe Acrobat, and Microsoft Office. The department also houses the Garber Research Computing Laboratory, which is a combination of a UNIX/LINUX-based system with multiple workstations and several Windows-based machines. The department recently added a Windows-based simulations laboratory in Summer 2014.

## Statistical Consulting Center

The Statistical Consulting Collaboratory provides a broad range of analytical and statistical support services, including design of experiments, statistical inference, hypothesis testing, and data modeling for the campus community, and promotes cooperative research between statisticians and other investigators in all fields of the application of statistics. The Collaboratory is staffed by:

**Daniel R. Jeske, Ph.D., Faculty Director**  
**Karen Huaying Xu, Ph.D., Associate Director**

and rotating graduate students.

## Change of Major Criteria

All courses taken to fulfill major requirements must be completed with grades of "C-" or better after repeats.

### Freshman (0-44.9 units earned)

Completion of the following with grade of "C-" or better and must be in good academic standing. (2.0 quarter and cumulative GPA)

MATH 008B or MATH 009A, MATH 009B

### Sophomores (45-89.9 earned units)

Completion of the following with grade of "C-" or better and must be in good academic standing. (2.0 quarter and cumulative GPA)

MATH 008B or MATH 009A, MATH 009B, MATH 009C

4 (four) additional units of college-level Mathematics or Statistics (STAT 100A recommended)

### Juniors (90-134.9 earned units)

Completion of the following with grade of "C-" or better and must be in good academic standing. (2.0 quarter and cumulative GPA)

MATH 008B or MATH 009A, MATH 009B, MATH 009C

12 (twelve) additional units of college level Mathematics or Statistics (MATH 031, STAT 100A and STAT 147 recommended)

### Seniors (135 or more earned units)

Completion of the following with grade of "C-" or better and must be in good academic standing. (2.0 quarter and cumulative GPA)

MATH 008B or MATH 009A, MATH 009B, MATH 009C, MATH 031, STAT 100A (or equivalent), STAT 100B (or equivalent), STAT 147, STAT 157

Major change requests are reviewed during the 2nd, 3rd, 4th & 10th weeks of each quarter.

## Transfer Selection Criteria

Applicants to majors in the College of Natural and Agricultural Sciences are selected on the basis of academic preparation, as assessed by their GPA and the strength of preparation for the intended major. A GPA of at least 2.70 is required. (This is a baseline GPA for consideration and not a guarantee of admission.)

In addition, applicants will need to complete

college courses comparable to at least two of the following UCR year-long sequences in order to meet selection criteria for this major. Courses must be completed with "C" grades or better:

MATH 009A, MATH 009B, and MATH 009C (mandatory). A grade of "B-" or better is required in this series.

And at least one sequence from:

1. BIOL 005A/BIOL 05LA and BIOL 005B (and BIOL 005C, if articulated)
2. CHEM 001A, CHEM 011A, CHEM 001B, CHEM 011B, CHEM 001C, and CHEM 011C