Interdisciplinary Programs

Undergraduate Programs

Degrees

Bachelor of Arts

American Studies and Ethnicity (see American Studies and Ethnicity, page 246)

American Studies and Ethnicity (African American Studies) (see American Studies and Ethnicity, page 248)

American Studies and Ethnicity (Asian American Studies) (see American Studies and Ethnicity, page 249)

American Studies and Ethnicity (Chicano/Latino Studies) (see American Studies and Ethnicity, page 249)

Animation and Digital Arts (see Cinematic Arts, page 208)

East Asian Area Studies (see East Asian Area Studies, page 304)

Environmental Studies (see Environmental Studies, page 332)

Gender Studies (see page 344)

Health and Humanity (see page 355)

Interdisciplinary Archaeology (see Anthropology, page 256)

Interdisciplinary Studies (see page 366)

International Relations (Global Business) (see International Relations, page 369)

Linguistics/East Asian Languages and Cultures (see Linguistics, page 390)

Linguistics/Philosophy (see Linguistics, page 389)

Linguistics/Psychology (see Linguistics, page 389)

Middle East Studies (see International Relations, page 369)

Narrative Studies (see English, page 322)

Neuroscience (see page 406)

Philosophy, Politics and Law (see Philosophy, page 413)

Religion, emphasis in Judaic Studies (see Religion, page 451)

Social Sciences, emphasis in Economics (see Economics, page 313)

Social Sciences, emphasis in Psychology (see Psychology, page 443)

Visual and Performing Arts Studies (see Theatre, page 919)

Bachelor of Science

Biochemistry (see Biological Sciences, page 272)

Biophysics (see Physics and Astronomy, page 422)

Business Administration (Cinematic Arts) (see Business, page 144)

Business Administration (East Asian Studies) (see Business, page 144)

Business Administration (International Relations) (see Business, page 144)

Computer Science/Business Administration (see Computer Science, page 624)

Economics/Mathematics (see Mathematics, page 397)

Environmental Studies (see Environmental Studies, page 332)

Global Health (see Preventive Medicine, page 773)

Physical Sciences (see Physics, page 282)

Physics/Computer Science (see Physics and Astronomy, page 421)

Minors

American Popular Culture (see American Studies and Ethnicity, page 250)

American Studies and Ethnicity (see American Studies and Ethnicity, page 250)

Ancient Religion and Classical Languages (see Religion, page 451)

Animation and Digital Arts (see Cinematic Arts, page 221)

Applied Theatre Arts/Education (see Theatre, page 920)

Arabic and Middle East Studies (see Linguistics, page 390)

Bioethics (see page 269)

Biotechnology (see Biological Sciences, page 272)

Business Law (see Business, page 146)

Children and Families in Urban America (see Social Work, page 852)

Cinema-Television for the Health Professions (see Cinematic Arts, page 221)

Communication and the Entertainment Industry (see Communication, page 480)

Communication Design (see Fine Arts, page 670)

Communication Law and Media Policy (see Communication, page 482)

Computational Biology and Bioinformatics (see Biological Sciences, page 273)

Construction Planning and Management (see Engineering, page 608)

Consumer Behavior (see Interdisciplinary Programs, page 108)

Craniofacial and Dental Technology (see Dentistry, page 514)

Critical Approaches to Leadership (see page 366)

Cultural Studies (see English, page 324)

Cultures and Politics of the Pacific Rim (see East Asian Languages and Cultures, page 307)

Digital Studies (see Cinematic Arts, page 200)

Early Modern Studies (see English, page 324)

East Asian Area Studies (see East Asian Area Studies, page 304)

Education in a Pluralistic Society (see Education, page 547)

Engineering Management (see Engineering, page 648)

Engineering Technology Commercialization (see Engineering, page 565)

Environmental Natural Sciences (see Environmental Studies, page 333)

Environmental Planning and Development (see Environmental Studies, page 333)

Environmental Social Sciences (see Environmental Studies, page 332)

Folklore and Popular Culture (see Anthropology, page 257)

Forensics and Criminality (see Sociology, page 461)

Gender Studies (see page 344)

Geobiology (see Earth Sciences, page 298)

Global Communication (see Communication, page 370)

Health Communication (see Communication, page 482)

Health Policy and Management (see Policy, Planning, and Development, page 853)
Human Rights (see Political Science, page 430)
Interactive Multimedia (see Engineering, page 660)
International Policy and Management (see International Relations, page 370)
International Urban Development (see International Relations, page 371)
Jewish American Studies (see American Studies and Ethnicity, page 251)
Judaic Studies (see page 380)
Latin American Studies (see Spanish and Portuguese, page 467)
Law and Public Policy (see Policy, Planning, and Development, page 853)
Law and Society (see Political Science, page 431)
Managing Human Relations (see page 109)

Mathematical Finance (see page 109)
Middle East Studies (see International Relations, page 371)
Musical Theatre (see Music, page 921)
Natural Science (see Biological Sciences, page 273)
Neuroscience (see page 407)
Nonprofits, Philanthropy and Volunteerism (see Policy, Planning, and Development, page 853)
Peace and Conflict Studies (see page 411)
Performing Arts Studies (see Theatre, page 921)
Political Organizing in the Digital Age (see Political Science, page 432)
Psychology and Law (see Psychology, page 443)
Public Policy (see Policy, Planning, and Development, page 854)

Race, Ethnicity and Politics (see Political Science, page 431)
Russian Area Studies (see Slavic Languages and Literatures, page 457)
Southeast Asia and Its People (see Anthropology, page 257)
Thematic Approaches to the Humanities and Society (see Thematic Option, page 473)
Theories of Art (see Philosophy, page 413)
3-D Animation (see Fine Arts, page 655)
3-D Art for Games (see Fine Arts, page 672)
2-D Art for Games (see Fine Arts, page 672)
Video Game Design and Management (see Engineering, page 656)
Visual Culture (see Art History, page 264)

Programs

Collaborative Learning Projects (see Learner Centered Curricula, page 386)
Honors in Multimedia Scholarship (see School of Cinematic Arts, page 217)
Individual Programs of Study (see Learner Centered Curricula, page 386)
Liberal Arts Modules (see Thematic Option, page 473)

Graduate and Professional Programs

Degrees

Master's Degrees
Cell and Neurobiology (see Medicine, page 757)
Clinical and Biomedical Investigations (see Medicine, page 742)
Construction Management (see Policy, Planning, and Development, page 610)
Digital Supply Chain Management (see Business, page 160)
Green Technologies (see Engineering, page 645)
Health Systems Management Engineering (see Industrial and Systems Engineering, page 650)
Medical Device and Diagnostic Engineering (see Engineering, page 590)
Philosophy and Law (see Philosophy, page 414)

Physiology and Biophysics (see Medicine, page 769)
Public Diplomacy (see Communication, page 486)

Graduate Certificates
Engineering Technology Commercialization (see Engineering, page 571)
Health Systems Operations (see Engineering, page 652)
Innovation (see Graduate School, page 102)
Optimization and Supply Chain Management (see Business, page 160)
Sustainable Cities (see Interdisciplinary Programs, page 112)

System Safety and Security (see Engineering, page 652)
Transportation Systems (see Policy, Planning, and Development, page 611)
Urban and Global Studies (see page 111)
Visual Studies (see Art History, page 265)

Doctor of Philosophy
Computational Biology and Bioinformatics (see Biological Sciences, page 276)
Molecular Pharmacology and Toxicology (see Pharmacy, page 832)
Pathobiology (see Medicine, page 767)
Pharmaceutical Sciences (see Pharmacy, page 832)
Physiology and Biophysics (see Medicine, page 770)

Interdisciplinary Programs

Bachelor of Arts in Narrative Studies

Narrative studies prepares students for the development and evaluation of original content for novels, films, theatre and other narrative platforms, but recognizes that the range of professional opportunities in literature and the performing arts is much wider than the roles of author, screenwriter or playwright.

Narrative Studies assumes that an effective narrative will be adapted from the medium in which it first appears as new media become available. To prepare students for a future in which the platform is likely to change, the Bachelor of Arts in Narrative Studies allows students to study across the current platforms while concentrating on the techniques of effective construction common to them all.

In so doing, it draws upon course work from several schools of art but finds its home in the humanities.

See the Department of English, page 321, for a complete listing of requirements.

Minor in Consumer Behavior

Accounting 306
(213) 740-5033

This interdisciplinary minor explores consumer thinking from the perspectives of psychology, marketing, economics, anthropology, sociology and other departments interested in popular culture. Why do people form the attitudes and impressions they do? How do individual factors, culture, mass media, economics and social trends influence people's decisions?

As with all minors, students must include at least four upper-division courses and four courses dedicated exclusively to this minor (which may be the same four courses). Finally, students must select four courses outside their major department. Psychology majors must choose four courses outside of psychology; business majors must choose four courses outside of the Marshall School of Business.

REQUIREMENTS		UNITS
Choose one of the following courses (4 units).		
BUAD 307	Marketing Fundamentals	4
PSYC 100	Introduction to Psychology	4
Choose one of the following courses (4 units):		
MKT 450	Consumer Behavior and Marketing	4
PSYC 355*	Social Psychology	4
SOCI 320	Social Psychology	4
Choose two of the following courses (8 units):		
ANTH 460	Economic Anthropology	4
COMM 302	Persuasion	4
MKT 405*	Advertising and Promotion Management	4
MKT 410*	Personal Selling	4
ECON 432*	Economics of Happiness	4
PSYC 454*	Social Cognition	4
PSYC 457*	Applied Social Psychology	4

Choose one of the following courses (4 units):		
COLT 365	Literature and Popular Culture	4
COMM 384	Interpreting Popular Culture	4
ENGL 392	Visual and Popular Culture	4
HIST 380	American Popular Culture	4
MKT 470*	Marketing Research	4
PSYC 490x	Directed Research	4

*Prerequisites required

(Please note that prerequisites will not be waived for upper-division courses; students must complete the introductory classes they will need.)

Total requirements: five courses   20 units

Minor in Managing Human Relations

**College Academic Services Building
(213) 740-2534**

This interdisciplinary minor is intended for students in all schools with an interest in human relations as a subject of study or professional goal. In addition to course work in organizational behavior, social psychology and management, this minor includes attention to questions of ethics and leadership.

As with all minors, students must include at least four upper-division courses and four courses dedicated exclusively to this minor (not used for credit toward a major, another minor or general education requirements). Finally, students must select four courses outside their major department. Students seeking the Bachelor of Arts in Sociology must choose four courses outside of sociology; those seeking the Bachelor of Science in Business Administration must choose four courses outside the Marshall School.

REQUIREMENTS		UNITS
Choose one course from the following (4 units):		
BUAD 304	Organizational Behavior	4
PSYC 355*	Social Psychology	4
SOCI 320	Social Psychology	4
Choose one course from the following (4 units):		
MOR 431*	Interpersonal Competence and Development	4
PSYC 457*	Applied Social Psychology	4
SOCI 340	Organizations: Bureaucracy and Alternatives to Bureaucracy	4
SOCI 342	Race Relations	4
SOCI 345	Social Institutions	4
Choose one course from the following list of classes on leadership (4 units):		
CLAS 370	Leaders and Communities: Classical Models	4
IR 303	Leadership and Diplomacy	4
MOR 470*	Global Leadership	4
MDA 325	Case Studies in Modern Leadership	4
MDA 365	The Art and Adventure of Leadership	4
PHIL 335	Theoretical Models of Leadership	4

Choose one course from the following list of classes on ethics (4 units):		
BUCO 425*	Public Communication in Ethics and Research	4
MOR 421*	Social and Ethical Issues in Business	4
PHIL 340	Ethics	4
REL 341	Ethics in a Technological Society	4
REL 375	Conflict and Change and the Ethics of Business	4
Choose one of the following three capstone classes (4 units):		
ECON 332*	Contracts, Organizations, and Institutions	4
ECON 471*	Economics of Labor Markets and Human Capital	4
MOR 471	Managing and Developing People	4
SOCI 340	Work and the Workplace	4

*Course has prerequisite or corequisite

Total requirements: five courses   20 units

Minor in Mathematical Finance

**Kaprielian Hall 108
(213) 740-2400**

This interdisciplinary minor was created for students in business, economics and mathematics, whose majors already require some of the introductory course work. Students in other programs are welcome but should expect the minor to require more units than it does for students in those programs.

As with all minors, students must include at least four upper-division courses and four courses dedicated exclusively to this minor (which may be the same four courses). Finally, students must select four courses outside their major department. Economics majors must choose four courses outside of economics; math majors must choose four courses outside of math; business majors must choose four courses outside of the Marshall School of Business. These may be the same courses used to meet the first two conditions.

REQUIREMENTS		UNITS
ECON 203	Principles of Microeconomics	4
ECON 205	Principles of Macroeconomics	4
Choose one of the following two sequences (8 units):		
ECON 303*	Intermediate Microeconomic Theory	4
ECON 305*	Intermediate Macroeconomic Theory	4
or		
BUAD 350*	Macroeconomic Analysis for Business Decisions	4
BUAD 351*	Economic Analysis for Business Decisions	4
Choose two courses, one from each of the following pairs (8 units):		
MATH 118x	Fundamental Principles of the Calculus, or	
MATH 125	Calculus I	4
MATH 218*	Probability for Business, or	
MATH 407*	Probability Theory	4

Choose two courses from the following list (8 units):
MATH 126 or MATH 127; MATH 225 or MATH 245; MATH 226 or MATH 227; MATH 408 or MATH 467

Choose one course from the following list (4 units):
BUAD 306, BUAD 310, ECON 350*, ECON 357*, FBE 441*

Choose one course from the following list (4 units):
ECON 452*, ECON 457*, FBE 324*, FBE 421*, FBE 443*, FBE 445*, FBE 459*, FBE 462*, FBE 464*

Choose one course from the following two (2 units):
ITP 165x, ITP 168x

*Prerequisite required

Total requirements, for students with no prior course work: 42 units

Students majoring in business administration, economics or mathematics can meet many of these requirements with course work that also satisfies their majors. In addition to those classes, students in those majors must complete the following requirements:

- Business majors satisfy 24 units with course work that is also required for the major and need to complete only 18 units in MATH, ECON and ITP

- Economics majors satisfy 20-24 units with course work required for the major (including one major elective), needing only 18-22 units in BUAD, FBE, ITP and MATH
- Mathematics majors satisfy 16 units with course work required for the major, needing only 26 units in BUAD, ECON, FBE and ITP.

Honors in Multimedia Scholarship

Program Overview
Honors in Multimedia Scholarship offers all undergraduate students an opportunity to approach their chosen major field(s) of study through the critical application of multimedia scholarship and expression. This four-year program introduces students to the theory and practice of multimedia and provides the opportunity to develop skills in multimedia authorship, collaboration, leadership and creative thinking.

Honors in Multimedia Scholarship is designed to address the changing nature of scholarship and literacy in the digital age, introducing students to a broad range of expressive possibilities using images, sound, dynamic media and interactivity in addition to traditional, text-based scholarship.

No prior experience with multimedia is required, but students should be willing to engage with new media technologies, ways of thinking and modes of expression. This program is open to students from all departments and schools.

For complete information, please see the Institute for Multimedia Literacy section in the School of Cinematic Arts, page 217.

Minor in Digital Studies
See the School of Cinematic Arts, page 217.

USC Stevens Institute for Innovation

(213) 821-5000
FAX: (213) 821-5001
Email: stevens.usc.edu

The USC Stevens Institute for Innovation is a university-wide resource in the Office of the Provost designed to harness and advance creative thinking and breakthrough research at USC for the benefit of society. The USC Stevens Institute identifies, nurtures, protects and transfers the most exciting innovations from USC to the market, and, in turn, provides a central connection for industry seeking cutting-edge innovations in which to invest. From the biosciences and technology to music and cinematic arts, the USC Stevens Institute connects faculty, students and the business community to create an environment for stimulating and inspiring innovation and innovators.

USC has many existing programs and courses spanning engineering, music, cinematic arts, fine arts, medicine and business that teach innovation. One of the goals of the USC Stevens Institute is to identify, nurture and promote these courses across USC. Engineers and science students may be particularly

interested in the undergraduate minor and a graduate certificate in engineering technology commercialization.

"Research universities in the 21st century not only will be judged by the quality of their research and the quality of their students, but also by how successful they are in transferring innovation into the marketplace in order to meet societal needs."
C.L. Max Nikias
Provost, University of Southern California

Graduate Certificates
- Graduate Certificate in Engineering Technology Commercialization, page 571
- Graduate Certificate in Technology Commercialization, page 162

Undergraduate Minors
- Minor in Biotechnology (combines science and business courses), page 272
- Undergraduate Minor in Engineering Technology Commercialization, page 565
- Minor in Video Game Design and Management, page 655

Innovation Course Work
- AME 503 Advanced Mechanical Design
- BAEP 551 Introduction to New Ventures
- BAEP 556 Technology Feasibility
- BAEP 557 Technology Commercialization
- BUAD 301 Technological Entrepreneurship
- CTIN 488 Game Design Workshop
- ENGR 493 Dean's Seminar in Entrepreneurship
- FA 436 Art and Technology
- ISE 545 Technology Development and Implementation
- MOR 467 Strategic Management of Technology and Innovation
- MOR 561 Strategies in High Tech Businesses
- MPTX 511 Regulation of Pharmaceutical and Biological Products
- MUIN 496 Music Media Solutions

Urban Initiative

The USC Urban Initiative offers a graduate certificate in urban and global studies. Faculty from across the university's professional schools and USC College actively engage in inter- and trans-disciplinary scholarship that bridges basic and applied research.

Faculty and students undertake applied and theoretical urban scholarship in an environment that promotes inquiry, introduces principles and values and teaches the skills necessary to work on complex urban problems in multidisciplinary environments and to develop the common language essential to effective collaboration.

Graduate Certificate in Urban and Global Studies

The Urban and Global Studies certificate provides an intense, interdisciplinary, intellectual educational, research and training experience focused on cities in global context to doctoral students from diverse professional and academic disciplines.

Urban challenges today are complex, often global problems that defy solutions from one discipline. The Urban and Global Studies certificate seeks to train a new generation of scholars with the skills to bridge basic and applied research, work collaboratively across disciplines, and think beyond national or local spheres to discover better solutions to complex problems. It offers scholars from interdisciplinary and disciplinary fields a unique opportunity to exchange respective methodologies and develop an enlarged community of communication.

A critical component of participation in the Urban and Global Studies certificate will be an international research project in the summer of the second year of the Ph.D. program. This will provide the student cohort with critical international comparative experience.

Admissions Criteria
Applicants for admission to the Urban and Global Studies certificate must be full-time currently enrolled students in good standing in a USC Ph.D. program. Applicants will be expected to have completed one year of full-time study in their respective schools prior to admission (generally, students will apply in the spring of their first year of study; however, other applicants further along in their Ph.D. studies will also be considered). Admitted students will generally enroll in the certificate courses during the second and third year of their Ph.D. studies.

Admission to the certificate program is highly selective and competitive. Preference is given to those with professional and academic qualities favoring success in interdisciplinary collaboration and scholarship around complex problem-solving.

Applicants must supply (1) a one-page statement of their professional and academic background and interests and career goals related to the certificate; (2) a letter of recommendation from a faculty member who knows the student's work well; and (3) a brief letter from the departmental chair (for applicants in USC College departments) or program advisor (for professional school applicants) indicating that the applicant is a currently enrolled student in good standing. Applications must be signed by the dean or a designated signer.

For specific information on admission requirements, application procedures and urban and global fellowships contact the Urban Initiative office at (213) 740-8181.

URBAN STUDIES (URBN)

URBN 601 Pro-Seminar in Urban and Global Studies (1, max 3, FaSp) Introduces students to the issues and problems of global cities and a range of urban scholars via the Urban Initiative lecture series. Open to Urban and Global Studies students only. Graded CR/NC.

URBN 603 Comparative Urbanism: Theory, Method, Policy (4, Fa) A critical overview of the city in history, past and present approaches to urban theory, the dynamics of contemporary urbanization and urban outcomes, and prospects for managing urban growth and change. Open to Urban and Global Studies students only. *Concurrent enrollment:* URBN 601.

URBN 605 Interdisciplinary Methods of Inquiry in Urban and Social Problems (3, Sp) Engages participants in discourse about the characteristics of urban problems and intellectual foundations of ways to solve them. It offers communication and language skills across disciplines. Open to Urban and Global Studies students only. *Prerequisite:* URBN 603; *concurrent enrollment:* URBN 601.

URBN 700 Grand Challenge Integrative Seminar (3, Sp) Seminar builds on knowledge and assignments of the Grand Challenge courses. Students describe, analyze and compare the work they did in their separate Grand Challenge courses. Open to Urban and Global Studies students only. *Prerequisite:* URBN 603, URBN 605.

Graduate Certificates

Energy, Technology and Society
Mark Taper Hall, THH 355
(213) 740-1384
Email: kaylor@college.usc.edu

Directors: Mark Bernstein (*Political Science*); James Haw (*Chemistry*)

The Energy, Technology and Society graduate certificate program is a multidisciplinary program open to USC students pursuing graduate degrees in many disciplines including architecture, biology, chemistry, communication, earth sciences, economics, education, engineering, geography, international

relations, political science, public policy, sociology and urban planning.

Energy has become an increasingly volatile and uncertain commodity. Relatively small changes in supply can cause large swings in prices. Energy is the also the main cause of worsening air quality in most major urban areas. The consumption of fossil fuels is the primary cause of emission of greenhouse gases, which is a major factor in global climate change. Reducing greenhouse gas emission will be a complex and daunting task for the coming decades.

While many academic disciplines include elements of energy and environmental issues, leaders will require multidisciplinary education, training and experiences to create an economically viable and environmentally sound future. Future decision-makers and analysts need to be able to develop new paradigms for how to integrate a portfolio of technologies, with changes in consumer behavior and new policies.

This program seeks to equip students with the tools to fit the pieces together, craft strategies for new portfolios of energy use, and help decision-makers understand the policy and planning tools to meet future energy and environmental needs.

Admission Requirements
Two groups of students are served by this certificate program:

1. New students who wish to apply directly to the Energy, Technology and Society Graduate Certificate program.

2. Students currently matriculated in a USC master's or doctoral degree program.

Candidates for admission among the first group of students must have: (1) a B.A. or B.S. degree or its international equivalent; (2) a minimum 3.0 GPA (A = 4.0) calculated over the last 60 units of credit earned. Exceptions may be made in cases of very high GRE scores or some other compelling evidence of potential to excel in graduate studies (e.g., outstanding letters of recommendation).

Application Procedures
Applicants are required to submit the following documents: (1) completed online application for admission *(www.usc.edu/admission/graduate)*; (2) statement of purpose; (3) official transcripts from all schools previously attended; (4) two letters of recommendation; and (5) results of the GRE General Test.

International students must submit TOEFL scores and are expected to achieve a minimum score of 600 on this exam. The statement of purpose should be uploaded into the online application. This letter should: (1) describe the student's motivation, field of interest and career goals; and (2) provide contact information, including address, phone number, email address and the primary academic unit (if the student is already enrolled at USC). Continuing students are not required to submit transcripts or GRE scores; these documents will be obtained electronically by the Office of Graduate Admissions from their original online graduate application. The letter of recommendation for continuing students must come from their primary academic advisor.

For more information, contact Natalie Kaylor, USC College Office of Advanced and Professional Programs, University of Southern California, Los Angeles, CA 90089-0355, kaylor@usc.edu, (213) 740-1384.

REQUIRED COURSES

One course from each of the following four categories (14 units of graduate work)

Technology

AME 577	Survey of Energy and Power for a Sustainable Future	3
CHEM 510	Alternative Energy Technologies and Options	4

Tools

ISE 576	Industrial Ecology: Technology-Environment Interaction	3
ENST 530	Environmental Risk Analysis	4

Politics and Policy

POSC 545	Critical Issues in Politics and Policy	4
POSC 546	Seminar in Environmental Policy	4

Impacts and Solutions

ARCH 519	Sustainability in the Environment: Infrastructure, Urban Landscapes, and Buildings	3
ARCH 611	Advanced Building Systems Integration	4
GEOG 601	Sustainable Cities	4
GEOL 525	The Science of Climate Change	4
PPD 692	Transportation and the Environment	4

Sustainable Cities Program
Taper Hall 355
(213) 740-1384
Email: kaylor@college.usc.edu
www.usc.edu/dept/sustainablecities

Director and Dean of Graduate Programs:
Jennifer Wolch (*Geography*)

Sustainable Cities Graduate Certificate
The Sustainable Cities Graduate Certificate program is a multidisciplinary certificate program open to USC students pursuing graduate degrees in many disciplines including anthropology, architecture, biology, chemistry, communication, earth sciences, economics, education, engineering, geography, international relations, political science, public policy, sociology, urban planning and others.

Creating sustainable cities for the 21st century is a major challenge for society. The growth of cities, caused by natural population increase and massive rural-to-urban population flows, poses critical environmental problems that reach far beyond municipal boundaries and transcend national borders. Resolving such

problems requires contributions from natural scientists, engineers, behavioral scientists and policy experts. To solve problems of national concern, such scientists must work productively with public administrators, political decision-makers and diverse interest groups.

This program seeks to equip graduate students with both the requisite knowledge of other fields and the political, interpersonal and communication skills necessary to succeed in research and practical contexts.

REQUIRED COURSES (14 UNITS)		UNITS
ARCH 519	Sustainability in the Environment: Infrastructure, Urban Landscapes, and Buildings	3
CE 564	Methods for Assessment and Protection of Environmental Quality, or	
ENE 502	Environmental and Regulatory Compliance	3
GEOG 601	Sustainable Cities, or	
GEOG 615	Natural Spaces in Urban Places	4
PPD 619	Smart Growth and Urban Sprawl: Policy Debates and Planning Solutions, or	
PPD 692	Transportation and the Environment	4

Each academic unit, department or program will determine the number of units completed that may be applied to the student's master's or doctoral degree.

Admission Requirements and Application Procedures
Students must be currently matriculated in a USC graduate degree program or be prospective USC students applying for admission to such a program. Prospective USC students, as well as continuing USC students, must submit the following documents: (1) complete application for admission to the Sustainable Cities Graduate Certificate Program, which can be found at *www.usc.edu/admission/graduate*; (2) statement of purpose; (3) official transcripts from all schools previously attended; (4) one letter of recommendation; and (5) results of the Graduate Record Examinations General Test. The statement of purpose should describe the student's field of interest and how it relates to urban sustainability. Continuing students are not required to submit transcripts or GRE scores; these documents will be obtained electronically by the Office of Graduate Admissions from their original online graduate application. The letter of recommendation for continuing students must come from their primary academic advisor.