

# COMMUNITY AND REGIONAL PLANNING

[www.design.iastate.edu/communityplanning](http://www.design.iastate.edu/communityplanning) (<http://www.design.iastate.edu/communityplanning>)

Community and regional planning is a field of study aimed at understanding the ever-changing socioeconomic and physical environments of our communities and planning for their future. Planners evaluate and seize opportunities to solve problems. Planners work at multiple levels, and they are concerned with issues that affect every corner of the world: the preservation and enhancement of the quality of life in a community, the protection of the environment, the promotion of equitable economic opportunity; and the management of growth and change of all kinds.

Graduates of the Community and Regional Planning department are able to integrate planning knowledge and skills in a variety of practical applications, and can communicate effectively in written and oral form. Graduates will be qualified for a variety of entry-level positions. They will also be well prepared for graduate study in a variety of fields, including law, public policy, public health, environmental science, geography, sociology, urban design, and architecture.

Graduates of the Community and Regional Planning Department are expected to understand the structure and functions of urban settlements, including the history of planning and urban development and the processes for plan and policy making. Graduates should have skills in problem formulation, quantitative analysis, written/oral and graphic communications, collaboration, and in synthesizing and applying knowledge to practice. Graduates are expected to be able to assess the impact of plans and alternatives based on equity and social justice, economic welfare and efficiency, environmental sustainability, and cultural heritage in the context of citizen involvement in decision making.

The curriculum is accredited by the Planning Accreditation Board of the American Institute of Certified Planners and the Association of Collegiate Schools of Planning. Our students gain an education that, when combined with experience, supports eligibility for membership in the American Institute of Certified Planners.

The department administers two undergraduate minors, Urban Studies and Geographic Information Systems (GIS). The department cooperates in the undergraduate minors in Design Studies, Digital Media, Critical Studies in Design, Environmental Studies, and Sustainability.

## Curriculum in Community and Regional Planning

The Department of Community and Regional Planning administers the 128 hour credit undergraduate program leading to the Bachelor of Science. Students have the opportunity to work with their faculty advisers to define their own areas of interest, which may include a minor.

The Community and Regional Planning Program can be completed in two to four years. Students may apply for admission to the program at any time during their enrollment at Iowa State University. If applying by transfer from another program or institution, admission is based on the student's cumulative GPA and a departmental review of course work. Transfer applications from students in programs in sociology, political science, history, geography, engineering, and other related disciplines are encouraged. Community and Regional Planning emphasizes responsibility and citizenship, writing and analytical ability, and critical thinking.

### Total Degree Requirement: 128 cr.

Only 65 cr. from a two-year institution may apply which may include up to 16 technical cr.; 9 P-NP cr. of free electives; 2.00 minimum GPA average; Completion of all requirements listed below.

### International Perspective: 3 cr.

### U.S. Diversity: 3 cr.

### Communication: 13 cr.

(C or better grade in ENGL 150 and ENGL 250)

ENGL 150	Critical Thinking and Communication	3
ENGL 250	Written, Oral, Visual, and Electronic Composition	3
ENGL 309	Proposal and Report Writing	3
or ENGL 314	Technical Communication	
SP CM 212	Fundamentals of Public Speaking	3
LIB 160	Information Literacy	1
Total Credits		13

### Humanities: 9 cr., 6 cr. 300 level or above

PHIL 201	Introduction to Philosophy	3
or PHIL 206	Introduction to Logic and Scientific Reasoning	
or PHIL 230	Moral Theory and Practice	
Six credits from program curriculum sheet		6
Total Credits		9

### Social Sciences: 18 cr. 300 level or above

ECON 101	Principles of Microeconomics	3
or ECON 102	Principles of Macroeconomics	
POL S 215	Introduction to American Government	3
SOC 134	Introduction to Sociology	3

Nine credits from program curriculum sheet.	9
Total Credits	18

**Math/Physics/Biol. Sciences: 13 cr.**

STAT 101 Principles of Statistics, 6 cr. in Natural Sciences, 3 cr. in Math.

**Design Core: 3 cr.**

DSN S 102	Design Studio I	3-4
or DSN S 183	Design Cultures	
Total Credits		3-4

**Community and Regional Planning Core: 24 cr.**

C R P 201	The North American Metropolis	3
C R P 293	Environmental Planning	3
C R P 301	Urban Analytical Methods	4
C R P 383	Theory of the Planning Process	3
C R P 391	Field Travel	1
C R P 432	Community Planning Studio	4-6
C R P 492	Planning Law, Administration and Implementation	3
C R P 331	Professional Practice Seminar	2
Total Credits		23-25

**Planning Elective: 24 cr.**

24 cr. from:

C R P 251X	Fundamentals of GIS	3
C R P 325X	US Housing Policy	3
C R P 351X	Intermediate GIS	3
C R P 416	Urban Design and Practice	6
C R P 417	Urban Revitalization	3
C R P 421X	Financing Historic Preservation Projects and Revitalizing Communities	3
C R P 437X	Public Participation in Planning	3
C R P 429	Planning in Developing Countries	3
C R P 435	Planning in Small Towns	3
C R P 445	Transportation Policy and Planning	3
C R P 450	Geodesign	3
C R P 451	Introduction to Geographic Information Systems	3
C R P 453X	Smart Cities	3
C R P 471X	Real Estate Development	3
C R P 479	Public Finance and Planning	3
C R P 484	Sustainable Communities	3
C R P 491	Environmental Law and Planning	3
C R P 494	Senior Seminar in Planning	3

**General Electives: 24 cr.**

Twenty-four credits of general electives from program curriculum sheet

## Undergraduate Minors

The department of Community and Regional Planning offers 15-credit minors in Urban Studies and Geographic Information Systems (GIS).

The Urban Studies minor is earned by completing both CRP 201 (The North American Metropolis) and CRP 291 (World Cities and Globalization), plus 9 additional credit hours from the approved list of courses. At least 6 credit hours must be in courses numbered 300 or above at Iowa State. The College of Design requires students to earn a C or higher in at least 6 of the required 300-level credits. The minor must include at least nine credits that are not used to meet any other department, college or university requirement except the credit requirement for graduation. The Urban Studies minor is open to students from any college and any major.

**Introduction to Urban Studies: 6 cr.**

C R P 201	The North American Metropolis	3
C R P 291	World Cities and Globalization	3

**Advanced Urban Studies: 9 cr.**

C R P 293	Environmental Planning	3
C R P 301	Urban Analytical Methods	4
C R P 320	Urban Geography	3
C R P 383	Theory of the Planning Process	3
C R P/ECON 376	Rural, Urban and Regional Economics	3
C R P 391	Field Travel	1-2
C R P 417	Urban Revitalization	3
C R P 421X	Financing Historic Preservation Projects and Revitalizing Communities	3
C R P 427X	Comparative Urbanism	3
C R P 429	Planning in Developing Countries	3
C R P 451	Introduction to Geographic Information Systems	3
C R P 453X	Smart Cities	3
C R P 457X	GeoGames and Civic Engagement	3
C R P 460	Social Justice and Planning	3
C R P 471X	Real Estate Development	3
C R P 479	Public Finance and Planning	3
C R P 484	Sustainable Communities	3
C R P 492	Planning Law, Administration and Implementation	3
C R P/ARCH 519	Middle Eastern Cities	3
C R P 521X	Introduction to Historic Preservation Planning: Theory and Practice	3
C R P 521X	Historic Preservation Planning	
C R P/ARCH 573X	Contemporary Issues in Global Housing	3
POL S 310	State and Local Government	3

POL S 311	Municipal Government and Polics	3
POL S 334	Politics and Society	3
POL S 371	Public Organizations and Leadership	3
POL S 480	Ethics and Public Policy	3
ARCH 221	History of Pre-Modern Architecture	3
ARCH 222	History of Architecture II	
ARCH 321	History of the American City	3
ARCH 420	Topics in American Architecture	3
ARCH 429	Topics in Italian Architecture and Urbanism	3
ARCH 575	Contemporary Urban Design Theory	3
SOC 310	Community	3
SOC 331	Social Class and Inequality	3
SOC 332	The Latino/Latina Experience in U.S. Society	3
SOC 360X	Globalization and Development	3
SOC 435	Urban Sociology	3
ANTHR 418	Global Culture, Consumption and Modernity	3
HIST 429	"Monstrous London": London's Histories 1500-1800	3-4
HIST 465	The American West	3
CL ST 275	The Ancient City	3
L A 274	The Social and Behavioral Landscape	3
L A 371	History of Modern Landscapes, 1750 to Present	3
L A 373	Gardens and Landscapes from Antiquity to 1750	3
C E 451	Urban Transportation Planning Models	3
URB D 521	Foundations of Urban Design	3
URB D 522	Contemporary Urban Design Practices	3

The undergraduate minor in Geographic Information Science (GIS) is an interdisciplinary program that provides students with opportunities to engage the theory, processes, techniques and tools that use spatial data and computational technology to create cutting-edge analysis and mapping approaches for a wide range of fields, such as urban planning, architecture, landscape architecture, design, community development, agriculture, environmental sciences, natural resources, sociology, criminology, anthropology, political science, environmental studies and others.

The minor is open to undergraduates in all university majors with a minimum overall GPA of 2.0 prior to enrolling.

#### Foundation of GIS: 6 cr.

C R P 251X	Introduction to Geographic Information Systems	3
C R P 351X	Intermediate Geographic Information Systems	3

#### GIS Tools and Techniques: 9 cr.

C R P 450	Geodesign	3
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C R P 452	Geographic Data Management and Planning Analysis	3
C R P 453X	Smart Cities	3
C R P 454	Fundamentals of Remote Sensing	3
C R P 456	GIS Programming and Automation	3
C R P 457X	GeoGames for Civic Engagement	3
C R P 458	Web Mapping/GIS	3
NREM 345	Natural Resource Photogrammetry and Geographic Information Systems	3
NREM 546	Integrating GPS and GIS for Natural Resource Management	3
GEOL 452	GIS for Geoscientists	3
GEOL 488	GIS for Geoscientists II	3

Community and Regional Planning. B.S.

#### First Year

Fall	Credits Spring	Credits
DSN S 102 or DSN S 183	3 Math/Science	3
ENGL 150	3 SP CM 212	3
ECON 101 or ECON 102	3 PHIL 201, 206, or 230	3
SOC 134	3 Natural Sciences	3
Elective	3 Elective	3
LIB 160	1	
	16	15

#### Second Year

Fall	Credits Spring	Credits
C R P 201	3 C R P 293	3
STAT 101	4 C R P 301	4
ENGL 250	3 C R P 391	1
POL S 215	3 Soc. Science/Humanities Electives	6
Humanities Elective	3 Elective	3
	16	17

#### Third Year

Fall	Credits Spring	Credits
C R P 492	3 Planning Electives	6
C R P 383	3 Elective	3
ENGL 309 or ENGL 314	3 Social Science/Humanities Electives	3
Social Science/Humanities Elective	3 Elective	3
Elective	3	
	15	15

**Fourth Year**

<b>Fall</b>	<b>Credits Spring</b>	<b>Credits</b>
C R P 432	4-6 Planning Elective or Option Studio	6
C R P 331	2 Planning Elective	3
Planning Elective	3 Planning Elective	3
300-400 Elective	3 Planning Elective	3
300-400 Elective	3 300-400 Elective	3
15-17		18

**Graduate Study**

The Department offers the Master of Community and Regional Planning degree with areas of concentration in land use and transportation, community design and development, and rural and environmental planning. Students may design their own area of concentration with the assistance of their major professor. The primary focus of the M.C.R.P. degree is to prepare students with the education and practical skills to be leaders in the practice of planning. The program of graduate study is accredited by the Planning Accreditation Board of the American Institute of Certified Planners and the Association of Collegiate Schools of Planning.

Degree requirements include completion of a 2-year, 48-credit program, including a required core (24 credits), electives (18-20 credits) and one of the following: capstone studio (6 credits), professional report (4 credits), or thesis (6 credits). The required core consists of C R P 532, 561, 563, 564, 566, 568 and 592. Students select electives in consultation with their Program of Study (POS) committee.

C R P 532	Community Planning Studio	4-6
C R P 561	Planning Theory	3
C R P 564	Introduction to Analytical Methods for Planning	3
C R P 566	Policy Analysis and Planning	3
C R P 568	Planning and Development	3
C R P 592	Land Use and Development Regulation Law	3

Admission to the M.C.R.P. program is by application to the department and to the Graduate College. Students with a Bachelors degree in planning or students who have taken highly relevant coursework may be able to waive up to 9 credits of course requirements. Students must petition the department's Director of Graduate Education (DOGE) in writing prior to the first day class of the student's first semester in the program to have credits waived. Students are encouraged to complete an internship in a planning office. No foreign language is required for the degree master of community and regional planning.

Double degree programs are offered with architecture (M.C.R.P./M.Arch.), business administration (M.C.R.P./M.B.A.), landscape

architecture (M.C.R.P./M.L.A.) and sustainable agriculture (M.C.R.P./M.S.). The department also participates in the interdepartmental major in transportation (see Transportation). Information about our programs and how to apply can be obtained from the department's web page at: [www.design.iastate.edu/communityplanning](http://www.design.iastate.edu/communityplanning) (<http://www.design.iastate.edu/CRP>), or send an email to [crp@iastate.edu](mailto:crp@iastate.edu).

The department also offers a 13-credit graduate certificate in Geographic Information Systems (GIS) in spatial analysis, GIS applications and program management. The program is open to graduate students in all disciplines of the University. Information about the graduate certificate may be obtained from the department office and from the department's web page at: [www.design.iastate.edu](http://www.design.iastate.edu) (<http://www.design.iastate.edu>).

**Courses primarily for undergraduates:****C R P 201: The North American Metropolis**

(3-0) Cr. 3. F.S.

Examination of the evolution of American urban centers from the colonial era to the present. Considers the demographic changes and social movements underway in urban America and explores how an understanding of the history of cities provides us with knowledge that we can use to improve our cities today.

Meets U.S. Diversity Requirement

**C R P 291: World Cities and Globalization**

(3-0) Cr. 3. F.S.

World cities and globalization in developed and developing countries. Topics include globalization, world cities and regions, uneven economic development, the international division of labor, multinational corporations, international environmentalism, tourism, popular culture and place-based identity.

Meets International Perspectives Requirement.

**C R P 293: Environmental Planning**

(Cross-listed with ENV S). (3-0) Cr. 3. F.S.

Comprehensive overview of the field of environmental relationships and the efforts being made to organize, control, and coordinate environmental, aesthetic, and cultural characteristics of land, air, and water.

**C R P 301: Urban Analytical Methods**

(3-2) Cr. 4. S.

*Prereq: STAT 101*

An introduction to the methods and analytical techniques used by planners to study community change. Course includes identification of key sources of planning information and data. Students learn to use quantitative methods for analysis of population, land use, economic and transportation data. Students learn to apply basic analytic methods to community problems and learn the art of effective written, graphic, and oral presentation of data.

**C R P 320: Urban Geography**

(3-0) Cr. 3. F.S.

An introduction to urban geography. Study of urban centers, including people and infrastructure. Investigation of the origin and evolution of urban areas and the processes that shape urban change. Topics include urban form, and the social, economic, political, cultural, and institutional factors that shape cities.

**C R P 330: Practicum**

Cr. 1-3. Repeatable, maximum of 6 credits. F.S.SS.

*Prereq: Major in community and regional planning*

Structured work experience under close supervision of a professional planner. Practical planning experience; relationships between theory and practice, professional responsibilities, and the scope of various planning roles.

**C R P 331: Professional Practice Seminar**

(2-0) Cr. 2. F.

*Prereq: CRP 301 and junior classification*

Preparation for working as a planning professional; development of resume and portfolio; discussion of professional ethics and expectations of employers and clients; presentations from planning professionals, and discussion of the range of career choices within the planning profession.

**C R P 376: Rural, Urban and Regional Economics**

(Cross-listed with ECON). (3-0) Cr. 3.

*Prereq: ECON 101*

Firm location with respect to regional resources, transport, scale economies, externalities, and policies. Measures of local comparative advantage and specialization. Spatial markets. Population location considering jobs, wages, commuting, and local amenities. Business, residential, and farm land use and value. Migration. Other topics may include market failure, regulation, the product cycle, theories of rural and urban development, developmental policy, firm recruiting, local public goods and public finance, schools, poverty, segregation, and crime.

**C R P 383: Theory of the Planning Process**

(3-0) Cr. 3. F.

*Prereq: Junior classification*

The nature of planning and its relation to social and economic planning; levels of planning, place of planning in decision making; steps in the planning process, uses and limitation of knowledge in planning, relation of facts and values.

**C R P 391: Field Travel**

Cr. 1-2. Repeatable. F.S.

*Prereq: CRP major and permission of instructor*

Observation of professional practice and community or regional problems and issues. Offered on a satisfactory-fail basis only.

**C R P 410: Professional Work Experience**

Cr. R. F.S.SS.

*Prereq: Permission of department chair*

Approved professional work experience.

**C R P 416: Urban Design and Practice**

(Dual-listed with C R P 516). (3-6) Cr. 6. S.

*Prereq: C R P 301*

Principles of urban design and their application to residential and commercial development in studio projects.

**C R P 417: Urban Revitalization**

(Dual-listed with C R P 517). (3-0) Cr. 3. Alt. S., offered odd-numbered years.

*Prereq: Junior classification*

Planning methods available to further revitalization and preservation efforts, with particular attention to housing and neighborhoods. Relationship between neighborhood change and urban development process; public policy implications.

**C R P 429: Planning in Developing Countries**

(Dual-listed with C R P 529). (3-0) Cr. 3. F.S.

Introduction to issues in planning and governance in an international setting. Problems and strategies may include population movement and change, economic globalization, urban growth, rural development, and housing.

**C R P 432: Community Planning Studio**

(1-6) Cr. 4-6. F.S.

*Prereq: C R P 201, C R P 301, C R P 383, or permission of instructor.*

Integration of planning methods and theory in dealing with a community planning problem. Analysis of problem and formulation of strategies for implementation. Preparation of a community planning report.

**C R P 435: Planning in Small Towns**

(Dual-listed with C R P 535). (3-0) Cr. 3. Alt. F., offered even-numbered years.

*Prereq: Junior classification*

Contemporary planning problems in small towns and the design of viable strategies to enhance their social and economic position in today's society.

**C R P 436: Community Economic Development**

(Dual-listed with C R P 536). (3-0) Cr. 3. Alt. F., offered odd-numbered years.

The nature and process of economic development in the context of community development. Recent changes and trends and their implications for local and regional development. Selected case studies and applications. Contemporary community economic development issues.

**C R P 442: Site Development**

(Dual-listed with C R P 542). (3-0) Cr. 3. S.

Introduction to site development including site review. Studio project integrating concept, finance, selection, analysis, and design.

**C R P 445: Transportation Policy and Planning**

(Dual-listed with C R P 545). (3-0) Cr. 3. F.

*Prereq: Junior classification; CRP 545 prerequisite: Graduate classification*

Comprehensive overview of key policy issues related to transportation planning and investment in the United States and abroad. Policy issues explored include safety, environmental impact, sustainable communities, and economic development. Policy analysis and planning are studied in conjunction with each policy issue explored. Issues of concern to state, metropolitan, and local governments.

**C R P 450: Geodesign**

(3-0) Cr. 3. S.

*Prereq: CRP 251 or equivalent or permission of the instructor*

This course provides an opportunity for students to learn about the fundamental concepts of Geodesign. Geodesign focuses on using a set of techniques and technologies, which can enable stages of project conceptualization, data collection and visualization, spatial analysis, design creation, simulation and stakeholders participation and collaboration. Students read articles discussing Geodesign and watch lectures and presentations given at Geodesign Summits in the USA and Europe. They study applications and study cases in which Geodesign was used and applied. They select a study case and work in interdisciplinary teams to apply learned theoretical Geodesign methodologies and approaches. Students may use any GIS software, ESRI CityEngine, ESRI GeoPlanner and/or Agent-Based Modeling in their studies of the study case.

**C R P 451: Introduction to Geographic Information Systems**

(2-2) Cr. 3. F.S.SS.

Introduction to geographic information systems, including discussions of GIS hardware, software, data structures, data acquisition, data conversion, data presentation, analytical techniques, and implementation procedures. Laboratory emphasizes practical applications and uses of GIS.

**C R P 452: Geographic Data Management and Planning Analysis**

(Dual-listed with C R P 552). (2-2) Cr. 3. F.S.

*Prereq: C R P 351 or equivalent*

Extensive coverage of geo-relational database concept and design, GIS database creation and maintenance, geographic data manipulation and analysis. GIS output generation and geographic data presentation. Laboratory emphasizes practical applications and uses of GIS.

**C R P 454: Fundamentals of Remote Sensing**

(Dual-listed with C R P 554). (Cross-listed with L A). (3-0) Cr. 3. F.

*Prereq: CRP 351 or equivalent or permission of the instructor*

Introduction to remote sensing techniques needed for basic analysis of satellite images, including: filtering and conflation techniques, stacking, pan sharpening, image rectification, image enhancement, unsupervised and supervised classification. Practical applications in a variety of topics to understand how to interpret images.

**C R P 456: GIS Programming and Automation**

(Dual-listed with C R P 556). (2-2) Cr. 3. F.

*Prereq: CRP 351 or CRP 551 or NREM 345 or NREM 546 or GEOL 552*

Introduction to automated geoprocessing in Geographic Information Systems. Focus on learning scripting language and object-oriented programming, automation of custom-designed geoprocessing scripts, and application toward student research and/or interests.

**C R P 458: Web Mapping/GIS**

(Dual-listed with C R P 558). (Cross-listed with L A). (2-2) Cr. 3.

*Prereq: CRP 451/551, LA 302. GEOL 452/552 or instructor permission.*

Use and development of online mapping tools to support participatory GIS, Volunteered Geographic Information, information sharing, geodesign and decision making actions. Geoprocessing and Web Scripting/coding and user interface design. Laboratory emphasis practical applications and uses of Web GIS.

**C R P 459: Digital Design Methods for Landscape Architecture**

(Dual-listed with C R P 559). (Cross-listed with L A). (3-0) Cr. 3. S.

Introduction to digital tools used by landscape architects for design communication, visualization, and design development. Include 2D drafting, 3D modeling, image CAD, geospatial data handling (GIS), and animation. Emphasis on concepts and workflow interoperability.



**C R P 460: Social Justice and Planning**

(Dual-listed with C R P 560). (3-0) Cr. 3. Alt. S., offered even-numbered years.

Investigation of the topic of social justice as it relates to the challenge of planning more socially just urban societies, emphasizing the importance of social justice issues to planning in a globalized world. Includes a range of issues and case studies of local social justice initiatives, both US and global. Students will complete individual service learning projects as part of the course requirement.

**C R P 475: Grant Writing**

(Dual-listed with C R P 575). (1-0) Cr. 1. F.

A short introduction to effective grant writing for the public and non-profit sectors. Includes identifying appropriate funding sources for an organization, identifying goals and objectives, and budgeting.

**C R P 479: Public Finance and Planning**

(Dual-listed with C R P 579). (3-0) Cr. 3. S.

Effective management of state and local government finance critical to successful community and regional planning. Economic concepts, topics in budgeting, revenue, expenditure, and financing, analytical techniques, economic impact, and case studies. Understanding of economic assessment in planning and understanding of various linkages between planning and public finance.

**C R P 484: Sustainable Communities**

(Dual-listed with C R P 584). (Cross-listed with ENV S). (3-0) Cr. 3. S.

*Prereq: Junior classification*

The history and theory of sustainable community planning. Procedural and substantive dimensions. Case studies of communities engaged in sustainability planning. Use and development of indicators.

**C R P 490: Independent Study**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*

Investigation of an approved topic commensurate with student's interest and ability. Offered on a satisfactory-fail basis only.

**C R P 490H: Independent Study: Honors**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*

Investigation of an approved topic commensurate with student's interest and ability. Offered on a satisfactory-fail basis only.

**C R P 491: Environmental Law and Planning**

(Dual-listed with C R P 591). (Cross-listed with ENV S, L A). (3-0) Cr. 3. S.

*Prereq: 6 credits in natural sciences*

Environmental law and policy as applied in planning at the local and state levels. Brownfields, environmental justice, water quality, air quality, wetland and floodplain management, and local government involvement in ecological protection through land use planning and other programs.

**C R P 492: Planning Law, Administration and Implementation**

(3-0) Cr. 3. F.

*Prereq: Junior classification*

The basis in constitutional, common, and statutory law for the powers of plan implementation. Problems of balancing public and private interests as revealed in the study of leading court cases. Administration of planning agencies and programs.

**C R P 494: Senior Seminar in Planning**

Cr. 1-3. Repeatable, maximum of 2 times. F.S.

*Prereq: Senior classification*

An advanced forum for seniors that focuses upon recent trends and important issues affecting planning today. Topics addressed will vary. A demonstration of understanding of current issues and their effects upon planning applications is expected.

**Courses primarily for graduate students, open to qualified undergraduates:**

**C R P 510: Professional Work Experience**

Cr. R. F.S.SS.

*Prereq: Permission of department chair*

Approved professional work experience.

**C R P 516: Urban Design and Practice**

(Dual-listed with C R P 416). (3-6) Cr. 6. S.

*Prereq: C R P 301*

Principles of urban design and their application to residential and commercial development in studio projects.

**C R P 517: Urban Revitalization**

(Dual-listed with C R P 417). (3-0) Cr. 3. Alt. S., offered odd-numbered years.

*Prereq: Junior classification*

Planning methods available to further revitalization and preservation efforts, with particular attention to housing and neighborhoods. Relationship between neighborhood change and urban development process; public policy implications.

**C R P 519: Middle Eastern Cities**

(Cross-listed with ARCH). (3-0) Cr. 3.

*Prereq: Graduate or Senior classification*

Introduction to basic academic writings on Middle Eastern cities in addition to other contemporary cultural productions of the region. Study of various aspects of Middle Eastern life and the built environments that this life produces.

Meets International Perspectives Requirement.

**C R P 529: Planning in Developing Countries**

(Dual-listed with C R P 429). (3-0) Cr. 3. F.S.

Introduction to issues in planning and governance in an international setting. Problems and strategies may include population movement and change, economic globalization, urban growth, rural development, and housing.

**C R P 530: Practicum**

Cr. 1-3. Repeatable, maximum of 6 credits. F.S.SS.

*Prereq: Graduate classification in Community and Regional Planning*

Practical planning experience. Structured work in range of tasks under close supervision of a professional planner. Relationships between theory and practice, exposure to variety of roles in functioning specialties.

Offered on a satisfactory-fail basis only.

**C R P 532: Community Planning Studio**

(3-6) Cr. 4-6. F.

*Prereq: C R P 564 or equivalent*

Comprehension and analysis of various geographic contexts pertinent to community planning and the use of planning theory, tools and techniques in an applied setting. Process of making a community plan: historical patterns, current conditions and strategies for planning.

**C R P 535: Planning in Small Towns**

(Dual-listed with C R P 435). (3-0) Cr. 3. Alt. F., offered even-numbered years.

*Prereq: Junior classification*

Contemporary planning problems in small towns and the design of viable strategies to enhance their social and economic position in today's society.

**C R P 536: Community Economic Development**

(Dual-listed with C R P 436). (3-0) Cr. 3. Alt. F., offered odd-numbered years.

The nature and process of economic development in the context of community development. Recent changes and trends and their implications for local and regional development. Selected case studies and applications. Contemporary community economic development issues.

**C R P 542: Site Development**

(Dual-listed with C R P 442). (3-0) Cr. 3. S.

Introduction to site development including site review. Studio project integrating concept, finance, selection, analysis, and design.

**C R P 545: Transportation Policy and Planning**

(Dual-listed with C R P 445). (3-0) Cr. 3. F.

*Prereq: Junior classification; CRP 545 prerequisite: Graduate classification*

Comprehensive overview of key policy issues related to transportation planning and investment in the United States and abroad. Policy issues explored include safety, environmental impact, sustainable communities, and economic development. Policy analysis and planning are studied in conjunction with each policy issue explored. Issues of concern to state, metropolitan, and local governments.

**C R P 550: Making Resilient Environments**

(Cross-listed with SUS E). (3-0) Cr. 3. S.

*Prereq: senior or graduate standing.*

Major theories and ideas revolving around the concept of resilience. Assessing the social and political processes associated with policy making for resilience. Application of the concept of resilience in order to understand and evaluate environments. Evaluate the different approaches toward resilience and develop an understanding of the relationship between sustainability and resilience. Case studies of communities that proactively prepare for, absorb, recover from, and adapt to actual or potential future adverse events.

**C R P 551: Introduction to Geographic Information Systems**

(2-2) Cr. 3. F.S.SS.

Introduction to geographic information systems, including discussions of GIS hardware, software, data structures, data acquisition, data conversion, data presentation, analytical techniques, and implementation procedures. Laboratory emphasizes practical applications and uses of GIS.

**C R P 552: Geographic Data Management and Planning Analysis**

(Dual-listed with C R P 452). (2-2) Cr. 3. F.S.

*Prereq: C R P 351 or equivalent*

Extensive coverage of geo-relational database concept and design, GIS database creation and maintenance, geographic data manipulation and analysis. GIS output generation and geographic data presentation. Laboratory emphasizes practical applications and uses of GIS.



**C R P 553: Analytical Planning/GIS**

(2-2) Cr. 3. F.

*Prereq: C R P 451/C R P 551*

Integration of exploratory, participatory and predictive spatial analyses and 3D visualization into the planning process. GIS tools and techniques are used to automate decision analysis and facilitate future planning in analyzing and visualizing planning actions. Laboratory emphasizes practical uses of GIS tools and techniques.

**C R P 554: Fundamentals of Remote Sensing**

(Dual-listed with C R P 454). (Cross-listed with L A). (3-0) Cr. 3. F.

*Prereq: CRP 351 or equivalent or permission of the instructor*

Introduction to remote sensing techniques needed for basic analysis of satellite images, including: filtering and conflation techniques, stacking, pan sharpening, image rectification, image enhancement, unsupervised and supervised classification. Practical applications in a variety of topics to understand how to interpret images.

**C R P 556: GIS Programming and Automation**

(Dual-listed with C R P 456). (2-2) Cr. 3. F.

*Prereq: CRP 351 or CRP 551 or NREM 345 or NREM 546 or GEOL 552*

Introduction to automated geoprocessing in Geographic Information Systems. Focus on learning scripting language and object-oriented programming, automation of custom-designed geoprocessing scripts, and application toward student research and/or interests.

**C R P 558: Web Mapping/GIS**

(Dual-listed with C R P 458). (Cross-listed with L A). (2-2) Cr. 3.

*Prereq: CRP 451/551, LA 302. GEOL 452/552 or instructor permission.*

Use and development of online mapping tools to support participatory GIS, Volunteered Geographic Information, information sharing, geodesign and decision making actions. Geoprocessing and Web Scripting/coding and user interface design. Laboratory emphasis practical applications and uses of Web GIS.

**C R P 559: Digital Design Methods for Landscape Architecture**

(Dual-listed with C R P 459). (Cross-listed with L A). (3-0) Cr. 3. S.

Introduction to digital tools used by landscape architects for design communication, visualization, and design development. Include 2D drafting, 3D modeling, image CAD, geospatial data handling (GIS), and animation. Emphasis on concepts and workflow interoperability.

**C R P 560: Social Justice and Planning**

(Dual-listed with C R P 460). (3-0) Cr. 3. Alt. S., offered even-numbered years.

Investigation of the topic of social justice as it relates to the challenge of planning more socially just urban societies, emphasizing the importance of social justice issues to planning in a globalized world. Includes a range of issues and case studies of local social justice initiatives, both US and global. Students will complete individual service learning projects as part of the course requirement.

**C R P 561: Planning Theory**

(3-0) Cr. 3. S.

Use and development of theory/action relationship in planning practice. Competing normative theories of planning and their evolution, key components and fundamental critiques. Exploration of planning frameworks and approaches, including comprehensive planning; incrementalism; advocacy; communicative rationality; and others.

**C R P 563: Planning the American Metropolis**

(3-0) Cr. 3. F.

Focus on the historical role of planning in the shaping of American cities and regions, from the beginning of the Republic to the present. Examine the legacy of planning by exploring the intersection of design, politics and policy. Investigate the factors and the processes that produce the built environment.

**C R P 564: Introduction to Analytical Methods for Planning**

(3-0) Cr. 3. F.

Applications of analytical methods in planning with emphasis on the collection, description, analysis, presentation, and interpretation of planning data. Introduction to descriptive statistics. Sources of planning information and data including primary and secondary data types and sources. Demographic analysis, population projection techniques for planning at local and regional levels.

**C R P 566: Policy Analysis and Planning**

(3-0) Cr. 3. F.

Principles and methods for analyzing community problems and policies including forecasting, efficiency and equity measures, cost/benefit, political feasibility, and sensitivity analysis. Examination of social, political, economic, and environmental values and their manifestation in decision making methods used in planning. Application of tools used to analyze planning problems, project evaluation and public policies.

**C R P 568: Planning and Development**

(3-0) Cr. 3. S.

*Prereq: C R P 564 or equivalent*

Exploration and evaluation of the techniques, processes, and professional skills required to effectively manage land use change at various scales. Land classification systems; land supply and needs inventory for residential uses and commercial and employment centers; capacity and needs analysis for public infrastructure. Includes land use planning project(s) designed to apply the methods explored in this and other courses.

**C R P 575: Grant Writing**

(Dual-listed with C R P 475). (1-0) Cr. 1. F.

A short introduction to effective grant writing for the public and non-profit sectors. Includes identifying appropriate funding sources for an organization, identifying goals and objectives, and budgeting.

**C R P 579: Public Finance and Planning**

(Dual-listed with C R P 479). (3-0) Cr. 3. S.

Effective management of state and local government finance critical to successful community and regional planning. Economic concepts, topics in budgeting, revenue, expenditure, and financing, analytical techniques, economic impact, and case studies. Understanding of economic assessment in planning and understanding of various linkages between planning and public finance.

**C R P 584: Sustainable Communities**

(Dual-listed with C R P 484). (3-0) Cr. 3. S.

*Prereq: Junior classification*

The history and theory of sustainable community planning. Procedural and substantive dimensions. Case studies of communities engaged in sustainability planning. Use and development of indicators.

**C R P 590: Special Topics**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590A: Special Topics: Planning Law, Administration and Implementation**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590B: Special Topics: Economic Development**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590C: Special Topics: Urban Design**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590D: Special Topics: Housing and Urban Revitalization**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590H: Special Topics: Environmental Planning**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590I: Special Topics: Land Use and Transportation Planning**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590N: Special Topics: International Planning**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590O: Special Topics: Spatial Analytical Methods**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590P: Special Topics: Planning in Small Towns**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590Q: Special Topics: Diversity and Equity in Planning**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 590R: Special Topics: Geographic Information Systems**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Graduate classification and written approval of instructor and department chair on required form*

**C R P 591: Environmental Law and Planning**

(Dual-listed with C R P 491). (Cross-listed with L A). (3-0) Cr. 3. S.

*Prereq: 6 credits in natural sciences*

Environmental law and policy as applied in planning at the local and state levels. Brownfields, environmental justice, water quality, air quality, wetland and floodplain management, and local government involvement in ecological protection through land use planning and other programs.

**C R P 592: Land Use and Development Regulation Law**

(3-0) Cr. 3. F.

An in-depth analysis of the legal constructs that shape the practice of planning and plan implementation in the United States. An exploration of how land use regulations are applied to reconcile the competing needs and diverse uses of land. The positive and negative consequences of developing and implementing regulatory controls will be addressed.

**C R P 595: Seminar in GIS Applications/Research**

(1-0) Cr. 1. F.S.

*Prereq: 9 credits in GIS Certificate program*

Discussion and demonstration of current GIS applications and research in multiple disciplines. Offered on a satisfactory-fail basis only.

**C R P 599: Professional Planning Report**

Cr. arr. Repeatable.

Independent planning project with practical application, including research element.

**Courses for graduate students:****C R P 698: Capstone Studio**

(1-6) Cr. 4. S.

*Prereq: Permission of instructor.*

Synthesis and integration of core planning knowledge into professional work in a team setting.

**C R P 699: Research**

Cr. arr. Repeatable.