LSC Use Only WUCC USE Only Number: Submission Date: Submission Date: Lon-Date: Action-Date: University-Wide Undergraduate Curriculum Committee
Sen App - 12/12/95 CONTACT 1. Contact Person Gail S. Sechrist Phone 357-2250 Department Geography and Regional Planning--Planning PROPOSAL TYPE (Check All Appropriate Lines) 11. COURSE Suggested 20 character title New Course\* Course Number and Full Title Course Revision Course Number and Full Title \_ Liberal Studies Approval+ \_\_\_ for new or existing course Course Number and Full Title Course Deletion Course Number and Full Title \_\_\_ Number and/or Title Change\_\_\_\_\_ Old Number and/or Full Old Title Course or Catalog Description Change \_\_\_ Course Number and Full Title \_\_\_X\_ Major \_\_\_\_ Minor \_\_\_\_ Track \_X\_\_\_ PROGRAM: \_\_\_\_ New Program\* Program Name \_ X\_ Program Revision\* <u>Bachelor of Science--Regional Planning</u> \_\_\_\_ Program Deletion\* \_\_\_\_\_ Program Name \_\_\_\_ Title Change \_\_\_\_\_ Old Program Name New Program Name Approvals (signatures and date) III. College Curriculum Committee +Director of Liberal Studies (where applicable) \*Provost (where applicable)

#### Part II. Description of Curriculum Change

#### 1) New Catalog Description

Majors in geography and regional planning each have a specific core curriculum that presents a structured approach to the field. Appropriate subfields or tracks are available in both programs to support different career options for majors. There are four tracks for the geography major and four tracks for the regional planning major.

- Regional Planning/Geographic Information Systems and Cartographer Track
- Geography/Geographic Information Systems and Cartographer Track The Geographic Information Systems and Cartographer Track prepares students for employment as Geographic Information System Specialists, Facilities Managers, Cartographers, and Remote Sensing professionals. Course work includes methods for identifying, modeling, and analyzing the spatial organization of human and environmental systems from both practical and theoretical perspectives. Data collection, spatial information management, and graphic presentation are integral skills taught in track courses. Such skills could be used, for example, for analysis of wildlife habitat, utility facility management, or transportation system design and maintenance.
- Economic Developer Track
- Economic Geographer Track

The Economic Track provides a broad framework of ideas and theories in addition to a task-oriented approach to location analysis. Site planners articulate the needs of the community for economic space, the demands for convenient transport, the role of private enterprise, and the management of growth. This inter-related group of courses is useful to students because economic geographers and developers are expected to analyze the interactions of concepts and variables. Market analysis for the location of new shopping centers, for example, requires understanding of economic principles, population characteristics, and the local political milieu all in a spatial context.

- Environmental Planner Track
- Environmental Developer Track

The Environmental Track is designed to prepare majors in geography or regional planning for careers in environmental fields or graduate study that leads to a variety of environ mental positions. Students who elect this track will acquire knowledge of the physical and human processes that shape the environment, strategies for analyzing environmental issues, and concepts that underlie strategies for ameliorating environmental problems. The skills acquired in this track will enable students to assess the causes, consequences, and solutions to a wide variety of environmental issues such as water pollution, acid rain, or tropical deforestation.

Town Manager Track

The Town Manager Track is designed to prepare planning students for careers in local government and graduate work in public administration. Students electing this track will become familiar with the structure, operation and actions of municipal government and the political, organizational and institutional basis of municipal management and decision making. Skills acquired with this track will enable students to undertake a variety of analytic activities designed to describe, project and prescribe courses of action for municipal improvement.

Liberal Studies with the followi Mathematics	ScienceRegional Planning/GIS & s: As outlined in Liberal Studies section ing specifications:  S: MA 121 or MA 217 ies electives: CO/IM/BE 101 recommended, in the section is section.		54-58
College:			
Foreign Lang	guage Intermediate Level (1)		0-6
Major:			39
Required Co	ourses in Planning:		
RP 213	Cartography I		3sh
RP 316	Introduction to GIS		3sh
RP 350	Introduction to Planning		3sh
RP 352	Planning Methods		3sh
RP 354	Planning Design		3sh
RP 412	Research Seminar		3sh
RP 458	Land Use Law		3sh
RP 464	Land Use Policy		3sh
RP 468	Planning Theory		3sh
Track Cours	ses:		
RP 313	Cartography II		3sh
RP 314	Map and Photograph Interpretation		3sh
RP 415	Remote Sensing		3sh
RP 417	GIS Applications Development		3sh
Other Require	ments:		
	RP 493) strongly recommended		3-12
Free Electives:			27-31
	Total D	egree Requirements	124
(1) Intermediate	e-level Foreign Language may be included in I	Liberal Studies electives.	

Bachelor of ScienceRegional Planning/Economic Developer Track	
Liberal Studies: As outlined in Liberal Studies section	54-58
with the following specifications:	
Mathematics: MA 121 or MA 217	
Social Sciences: EC 121	
Liberal Studies electives: EC 122, no courses with RP prefix	
College:	0-6
Foreign Language Intermediate Level (1)	
Major:	39
Required Courses in Planning:	37
RP 213 Cartography I	3sh
RP 316 Introduction to GIS	3sh
RP 350 Introduction to Planning	3sh
RP 352 Planning Methods	3sh
RP 354 Planning Design	3sh
RP 412 Research Seminar	3sh
RP 458 Land Use Law	3sh
RP 464 Land Use Policy	3sh
RP 468 Planning Theory	3sh
Track Courses:	
Four of the following:	
GE 231 Economic Geography	3sh
GE 331 Population Geography	3sh
RP 332 Urban Geography	3sh
RP 333 Trade and Transportation	3sh
GE 334 Political Geography	3sh
Other Requirements:	
Internship (RP 493) strongly recommended	3-12
Free Electives:	27-31
EC 383 Urban/Regional Economics recommended	2. 01
Total Degree Requirements	124
(1) Intermediate-level Foreign Language may be included in Liberal Studies electives.	

Bachelor of	ScienceRegional Planning/Environmental Planner Track	
	: As outlined in Liberal Studies section	54-58
with the following	ng specifications:	
Mathematics	: MA 121 or MA 217	
Liberal Studi	es electives: CO/IM/BE 101 recommended, no courses with RP prefix	
College:		
	uage Intermediate Level (1)	0-6
Major:		39
	ourses in Planning:	
	Cartography I	3sh
RP 316	Introduction to GIS	3sh
RP 350	Introduction to Planning	3sh
RP 352	Planning Methods	3sh
RP 354	Planning Design	3sh
RP 412	Research Seminar	3sh
RP 458	Land Use Law	3sh
RP 464	Land Use Policy	3sh
RP 468	Planning Theory	3sh
Track Cours	es:	
Four of t	the following:	
	Map and Photograph Interpretation	3sh
GE 340	Fresh Water Resources	3sh
	Climatology	3sh
GE 342	Physiography	3sh
	Remote Sensing	3sh
GE 440	Conservation: Environmental Analysis	3sh
Other Requires	ments:	
Internship (F	RP 493) strongly recommended	3-12
Free Electives:		27-31
	Total Degree Requirements	124
(1) Intermediate	-level Foreign Language may be included in Liberal Studies electives	

Bachelor of ScienceRegional Planning/Town Manager Track	54.50
Liberal Studies: As outlined in Liberal Studies section	54-58
with the following specifications:	
Mathematics: MA 121 or MA 217	
Social Science: PS 111 recommended	
Liberal Studies electives: GE 230, CO/IM/BE 101 recommended, no courses with RP prefix	
College:	0.6
Foreign Language Intermediate Level (1)	0-6
Major:	39
Required Courses in Planning:	
RP 213 Cartography I	3sh
RP 316 Introduction to GIS	3sh
RP 350 Introduction to Planning	3sh
RP 352 Planning Methods	3sh
RP 354 Planning Design	3sh
RP 412 Research Seminar	3sh
RP 458 Land Use Law	3sh
RP 464 Land Use Policy	3sh
RP 468 Planning Theory	3sh
Track Courses:	
GE 231 Economic Geography	3sh
RP 332 Urban Geography	3sh
PS 354 Metropolitan Problems	3sh
PS 355 Intergovernmental Relations	3sh
or	
PS 370 Introduction to Public Administratiion	3sh
PS 371 Issues in Public Administration	3sh
Other Requirements:	
Internship (RP 493) strongly recommended	3-12
Free Electives:	27-31
PS 251 State and Local Political Systems recommended	27-31
1 5 251 State and Local Fontion Systems recommended	
Total Degree Requirements	124
(1) Intermediate-level Foreign Language may be included in Liberal Studies electives.	

# 2) Summary of Changes a) Table Comparing old and new

#### REGIONAL PLANNING

OLD	REGIONALTE	NEW	
Bachelor of ScienceRegional Planning		Bachelor of ScienceRegional Planning/GIS &	
	4-55	Cartographer Track	
section with the following specifications:		Liberal Studies: As outlined in Liberal Studies	
Mathematics: MA 217 recommended		section with the following specifications:	
Natural Science: GS 101/102, 103/104 or		Mathematics: MA 121 or MA 217	
GS 121/122, 131/132		Liberal Studies electives: CO/IM/BE 101 recor	mmended.
Social Science: PS 111 recommended, EC 121		no courses with RP prefix	
Liberal Studies electives: CO/IM/BE 101,		College:	0-6
no courses with GE prefix		Foreign Language Intermediate Level	
	0-6	Major:	39
Foreign languagee Intermediate Level		Required courses:	
Major:	36	RP 213 Cartography I	
Required courses:		RP 316 Introduction to GIS	
GE 312 Research in Geography and Planning		RP 350 Introduction to Planning	
GE 360 Introduction to Planning		RP 352 Planning Methods	
GE 361 Planning: Basic Studies and Analysis		RP 354 Planning Design	
GE 462 Planning: Development, Principles,		RP 412 Research Seminar	
and Theory		RP 458 Land Use Law	
GE 463 Planning: Design		RP 464 Land Use Policy	
GE 464 Land Use Policy		RP 468 Planning Theory	
Controlled electives:		Track courses:	
One course from GE 313-314		RP 313 Cartography II	
Three courses from GE 230, 231, 241, 331,		RP 314 Map and Photograph Interpretation	
335, 336, 341, 342		RP 415 Remote Sensing	
Two courses from GE 313 or 314, 332, 415, 440		RP 417 GIS Applications Development	
	5-36	Other Requirements:	
Interdisciplinary minor (21 sh) or		Internship (GE 493) strongly recommended	
Minor in approved field (15-21 sh)			27-31
Internship (GE 493) strongly recommended		Total Degree Requirements:	124
	-19		
Total Degree Requirements:	124	Bachelor of ScienceRegional Planning/Econo	mic
		Developer Track	
		Liberal Studies: As outlined in Liberal Studies	54-58
		section with the following specifications:	
		Mathematics: MA 121 or MA 217	
		Social Science: EC 121	
		Liberal Studies electives: EC 122, no courses v	The state of the s
		College:	0-6
		Foreign Language Intermediate Level	1
		Major:	39
		Required courses in Planning	
		RP 213 Cartography I	
		RP 316 Introduction to GIS	
		RP 350 Introduction to Planning	
		RP 352 Planning Methods	
		RP 354 Planning Design	
		RP 412 Research Seminar	
		RP 458 Land Use Law	
		RP 464 Land Use Policy	
		RP 468 Planning Theory	

Track courses:			
Four of the following:			
GE 231 Economic Geography		College:	0-6
GE331 Population Georaphy		Foreign Language Intermediate Level	
RP 332 Urban Geography		1	
RP 333 Trade and Transportation		Major	39
GE 334 Political Geography		Required Courses:	
Other Requirements:		RP 213 Cartography I	
Internship (GE 493) strongly recommended		RP 316 Introduction to GIS	
Free Electives:	27-31	RP 350 Introduction to Planning	
1/C 383 Regional Economics recommended		RP 352 Planning Methods	
Total Degree Requirements:	124	RP 354 Planning Design	
		RP 412 Research Seminar	
Bachelor of ScienceRegional Planning/Env	ironmental	RP 458 Land Use Law	
Planner Track		RP 464 Land Use Policy	
Liberal Studies: As outlined in Liberal Studie	s 54-58	RP 468 Planning Theory	
section with the following specifications:		Track courses:	
Mathematics: MA 121 or MA 217		GE 231 Economic Geography	
Liberal Studies electives: CO/IM/BE 101 re	ecommended,	RP 332 Urban Geography	
no courses with RP prefix		PS 354 Metropolitan Problems	
College:	0-6	PS 355 Intergovernmental Relations	
Foreign Language Intermediate Level		or	
Major:	39	PS 370 Introduction to Public Adminis	tration
Required courses:		PS 371 Issues in Public Administration	a
RP 213 Cartography I		Other Requirements:	
RP 316 Introduction to GIS		Internship (GE 493) strongly recommended	
RP 350 Introduction to Planning		Free Electives:	27-31
RP 352 Planning Methods		PS 251 State and Local Political Systems re	commended
RP 354 Planning Design		Total Degree Requirements:	124
RP 412 Research Seminar			
RP 458 Land Use Law			
RP 464 Land Use Policy			
RP 468 Planning Theory			
Track Courses:			
Four of the following			
RP 314 Map and Photograph Interpretati	on		
GE 340 Fresh Water Resources			
GE 341 Climatology			
GE 342 Physiography			
RP 415 Remote Sensing	nalveje		
GE 440 Conservation: Environmental A Other Requirements:	narysis		
Internship (GE 493) strongly recommended			
Free Electives:	27-31		
Total Degree Requirements:	124		
Total Degree Acquirements.	124		
Bachelor of ScienceRegional Planning/Tow	vn Manager		

Track

section with the following specifications: Mathematics: MA 121 or MA 217 Social Science: PS 111 recommended

Liberal Studies: As outlined in Liberal Studies 54-58

GE 230, no courses with RP prefix

Liberal Studies electives: CO/IM/BE 101 recommended,

- b) List of all associated changes for Regional Planning Major
  - 1) New department prefix (RP) for all Regional Planning courses.
  - 2) Changing Liberal Studies Specification List for Regional Planning.
  - 3) Addition of three courses to core requirements.
    - a) RP 213 Introduction to Cartography I
    - b) RP 316 Introduction to GIS
    - c) RP 458 Land Use Law
  - 4) Substitution of tracks for Controlled Electives and Required Minor.

#### 3) Rationale for changes

1) Rationale for separate department prefix for all Regional Planning courses.

By designating the department courses that are part of the regional planning major we will make it clearer to the students and the larger university community that Regional Planning is a separate major. This is a change long awaited by Academic Information Systems to better distinguish the majors offered by the Department of Geography and Regional Planning.

The RP designation will appear on the student's transcripts and assist them when they are applying for planning positions. It will make advising and graduation check out easier. These changes will also move us closer to the requirements of the Planning Accreditation Board.

2) Rationale for Changes in the Liberal Studies Specification List.

The Liberal Studies specification list for Regional Planning majors is being changed to allow students more flexibility. For the Mathematics requirement we are shifting from recommending MA 217 (Probability & Statistics) to providing two options [MA 121 (Calculus I) or MA 217]. We have decided to leave the Natural Science option open because other sciences besides Geoscience may be acceptable options for our majors. Those in the Environmental Planner Track, for example, might find Biology more appropriate. Additionally we get many majors as sophomores or juniors who have already taken their science courses, and we have granted waivers for other science courses.

The Economic Developer Track retains EC 121 (Principles of Economics I) and adds EC 122 (Principles of Economics II) because these courses provide a good grounding in Economics essential for students in this track. For the other tracks, however, we are removing EC 121 as a requirement to allow more flexibility. Except for the Town Manager Track, the recommendation to take PS 111 (American Politics) is also being removed to allow students to make other choices. We are also removing the computer science requirement and making it recommended for the Cartography & GIS, the Environmental Planner, and the Town Manager tracks so that students who are already computer literate may choose other options.

Because the Town Manager Track calls for a greater knowledge of cultural and political systems, we are making PS 111 (American Politics) a Social Science recommendation and GE 230 (Cultural Geography) a Liberal Studies Elective requirement with CO 101 recommended.

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- 3) Rationale for the Addition of Three Courses to Major Required Courses List.
  - a) RP 213 Cartography I is being added to the core requirements because we have found that our interns with basic cartographic skills have a 'foot in the door' for job opportunities. In addition, a graphic skills component is a standard feature of most job descriptions for planners. By making cartography a core course, our students will expand both their skills and their graphic portfolios.
  - b) RP 316 Introduction to GIS is being added to the core because of the increasing use of Geographic Information Systems in county, township and borough planning offices. This trend will only continue as local units of government enter the 'information age.' By requiring a GIS course our students will be prepared to assume jobs in offices developing municipal systems.
  - c) RP 458 Land Use Law is being added to the core because the legal environment for land use planning has undergone dramatic changes in the last decade. The rules of planning practice are currently undergoing the most dramatic changes since 1926. Recent Supreme Court rulings, the introduction of state level 'takings' legislation and the rise of the Wise Use Movement, represent profound changes in both the regulatory environment and planning practice. By making Land Use Law a core course we ensure that our students will be well versed in land use law and know their component of the law at least as well as the police do.
- 4) Rationale for the Substitution of Tracks for Controlled Electives and a Minor.

By establishing a series of professional tracks we hope to create a coherent set of options for our students. Currently students select courses based on individual predilections or opportunistically—whatever seems to meet the requirements and fit the schedule. By formalizing our program options we hope to provide considerably more structure to their programs of study, and lay out a clear direction for their tenure as undergraduates. In addition, the provision of professional tracks provides potential employers with a better idea of how a student's academic training dovetails with the requirements of their organizations.

The tracks also provide a specialization that replaces the former required minor. Students will still be encouraged to take courses in other departments that complement their track as part of their free electives.

#### Part III. Implementation.

1) Effect on students in the existing program.

In the transition period, we would accommodate our students in the best way possible on an individual basis. We anticipate a minimum number of problems--no situation that would defy solution to the student's benefit.

2) Effect on teaching loads.

Two of these courses (RP 213 and RP 316) are already regularly offered. We recently began offering GE 213 Cartography I twice a year due to increased demand for the course. Additional sections could be added without seriously compromising the service course loads. RP 458 Land Use Law is a new course and the planner teaching it will teach one less geography course each year. Other geography faculty will be able to teach the course currently taught by the planner.

No additional faculty will be needed beyond the number currently in the department, provided that the two permanent faculty positions now held by temporary faculty since recent retirements are retained. At least one of these positions will likely be a geographer with a planning background. These positions should be converted as soon as possible for the continued support of our program.

3) Effect on resources.

With the already increased demand for Cartography I and GIS we are equipped to handle them with current funding available to the department. Regardless, we would have had to support our mapping software upgrades with current department and university funds. Current resources are sufficient to offer Land Use Law.

4) Effect on enrollments.

The addition of these three courses to the core will not greatly effect enrollments because many majors already took Cartography and GIS. The modifications to the Liberal Studies specifications should make it easier for those majors who transfer from other departments.

See the sample student schedule on the following page.

# Sample Student Schedule for Regional Planning Major

# Fall Semester Freshman

RP 350 Introduction to Planning

# Spring Semester Freshman

RP 352 Planning Methods +/or RP 213 Cartography I

# **Fall Semester Sophomore**

RP 213 Cartography I

# **Spring Semester Sophomore**

RP 354 Planning Design one track course\*

## Fall Semester Junior

RP 316 Introduction to GIS RP 458 Land Use Law

# **Spring Semester Junior**

RP 464 Land Use Policy one or two track courses

### Fall Semester Senior

RP 468 Planning Theory one or two track courses

# **Spring Semester Senior**

RP 412 Research Seminar

There is enough flexibility in this schedule so that students who begin as sophomores or even first semester juniors could complete a regional planning major in four years.

<sup>\*</sup>Each track has four courses.

### Part V. Letters of Support.

Letters of support were requested in July from Computer Science, Mathematics, and Geoscience. Computer Science and Geoscience have yet to reply. After a discussion with the chair of Mathematics, we revised our original math requirement. A letter of support follows.

To: Dr. Susan Forbes, Chairperson

Geography and Regional Planning Department

Gerald Buriok, Chairperson

Date: September 11, 1995

Subject: Support of Curriculum Change

The faculty of the Mathematics Department support your proposal for a change in the Liberal Studies Mathematics requirement for the Bachelor of Arts in Geography and the Bachelor of Science in Regional Planning from MA 217 recommended to MA 217 or MA 121 required. I do not anticipate any enrollment problems or resource problems in the Mathematics Department due to this change.