City and Regional Planning

Master’s Degrees

• City & Regional Planning, MCRP (https://www.uta.edu/academics/schools-colleges/cappa/academics/public-affairs-planning/m-city-regional-planning/)

Doctoral Degree

• Urban Planning and Public Policy, Ph.D. (https://www.uta.edu/academics/schools-colleges/cappa/academics/public-affairs-planning/planning/phd-in-urban-planning-and-public-policy/)

Certificates

• Developmental Review Certificate (https://www.uta.edu/cappa/academics/certificate-programs/)
• Geographical Information Systems Certificate (https://www.uta.edu/cappa/academics/certificate-programs/)
• Transportation Planning and Policy Certificate (https://www.uta.edu/cappa/academics/certificate-programs/)

Minor Offered

• Environmental and Sustainability Studies (https://www.uta.edu/academics/schools-colleges/cappa/academics/minors/environmental-sustainability-minor/)

Overview

Located in the heart of the Dallas-Fort Worth Metroplex, the fourth largest metropolitan region in the U.S., both our City and Regional Planning Master's Degree Program (MCRP) (https://www.uta.edu/academics/schools-colleges/cappa/academics/public-affairs-planning/m-city-regional-planning/) and Ph.D. in Urban Planning & Public Policy (UPPP) (https://www.uta.edu/academics/schools-colleges/cappa/academics/public-affairs-planning/phd-planning-policy/) programs are situated in an optimal laboratory to study, analyze, and provide planning solutions to contemporary urban problems, such as sprawl, pollution, equity, carbon footprints, economic development, aging infrastructure, and, more generally, contributing to the development of sustainable cities and regions.

Both programs reside in the College of Architecture, Planning and Public Affairs (CAPPA), whose Institute of Urban Studies (https://www.uta.edu/cappa/research/ius/) provides student research and practical experience through the professional planning services it offers to cities across the state of Texas.

MCRP

The MCRP program prepares students for careers as professional planners with public, private and nonprofit organizations. It does this by training students to apply planning theory, knowledge, techniques, and skills to “real world” planning problems through coursework, studios, and internship opportunities.

UTA’s City and Regional Planning Master’s Degree Program is accredited by the Planning Accreditation Board (http://www.planningaccreditationboard.org/) (PAB). The program’s mission, goals and objectives, and accreditation efforts are shaped in consultation with the MCRP Advisory Board composed of alumni and area practitioners.

UPPP

The Ph.D. Program in Urban Planning and Public Policy (UPPP) prepares Doctoral students for careers in university teaching and research, research organizations and think tanks, senior public, private, or non-profit sector positions and also policy or advocacy institutes. It does this by integrating the academic disciplines of urban planning and public policy, providing students with a rich core of substantive and procedural knowledge concerning policy and planning.

The Program combines theoretical inquiry and analysis with application, offering students diverse approaches to policy and planning issues. Students are encouraged to pursue dissertation research using either or both quantitative and qualitative methodologies, and the Program offers extensive preparation in these modes of inquiry.

Advising

MCRP Graduate Advisor: (https://www.uta.edu/academics/schools-colleges/cappa/general-advising/grad-advising/) Barbara Saenz

Director of Academic and Student Affairs / Advising Supervisor: Cheryl Donaldson

Admissions Requirements

MCRP Interim Program Director: Dr. Ivonne Audirac
The MCRP program takes a holistic approach to the application review process. Each applicant file is reviewed individually with equal consideration given to the quantitative and qualitative aspects of the student's record. A complete application includes:

1. Undergraduate Grade Point Average (GPA): The undergraduate GPA based on the last 60 hours of course work as calculated by the Graduate Admissions from the official transcript.
2. Graduate Record Exam (GRE) scores: Verbal, Quantitative, and Writing (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements. See "Waiving the GRE" below)
3. Letters of Recommendation attesting to the applicant’s potential to do Master’s-level work and complete the program. Letters for Master’s programs should be from professors or supervisors at work (download Letter of Recommendation form [https://cdn.web.uta.edu/-/media/project/website/cappa/documents/admissions-and-advising/forms/grad_request_recommendation.ashx?revision=00cbbf08-7e0d-4035-aa71-615a17c672b9])
4. Essay by applicant approximately one double-spaced page in length (approximately 250 words). The Essay is considered both for its content and quality of writing. The Essay should address the following questions: 1. Why do you want to earn a Master’s degree in the program for which you are applying? 2. What relevant background and experience do you bring to the program? The essay can also include other concerns you’d like to bring to the attention of the CAPPA Academic Recruiter, the Graduate Advisor, or the Master's Admissions Committee.
5. Non-native English speakers only: TOEFL-IBT or IELTS scores meeting University minimum admission standards are required (TOEFL-IBT 79 with sectional scores of at least 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or an IELTS score of at least 6.5). However, a non-native English speaking applicant holding either a Bachelor’s or a Master’s degree from a regionally accredited U.S. college or university is not required to take these tests. Students failing to meet English proficiency requirements may be admitted on probation to the Pathway Admission program to improve their English skills. Go to [https://catalog.uta.edu/academicregulations/admissions/graduate/](https://catalog.uta.edu/academicregulations/admissions/graduate/) for a description of the Pathway Program.

Official transcripts and test scores must be sent directly to Graduate Admissions by the issuing institution or testing service. Letters of recommendation should be sent directly via email to cappa.advising@uta.edu (%20cappa.advising@uta.edu) or by postal service, to: CAPPA Program – Master of City & Regional Planning (MCRP), Box 19108, Arlington TX 76019. It is the applicant’s responsibility to ensure all application materials are received by the application deadline. Incomplete applications or applications received after the deadline could be deferred.

A student who is well-prepared through an undergraduate degree in planning or related field and has as well five or more years of relevant and verifiable professional experience maybe eligible to complete the degree in 30 credit hours.

The MCRP program admits students for Fall and Spring semesters; the application deadlines are June 15th and October 15th respectively.

**Waiving the GRE**

The MCRP program waives the requirement that an applicant take the GRE under any of the following conditions:

1. A completed UT-Arlington undergraduate degree awarded within three years of application for admission and a 3.0 or higher GPA on the last 60 hours of coursework.

**Types of Admission**

**Unconditional Admission**

Applicants who meet all the following requirements will be considered for unconditional admission:

1. Undergraduate GPA of 3.0 or better
2. A preferred minimum Verbal GRE score of 150 a preferred minimum Quantitative GRE score of 141 and a preferred minimum Writing GRE score of 4.
3. Outstanding letters of recommendation
4. Strong, well-written personal essay
5. Non-native English speakers only: Students must demonstrate proficiency in English by earning a TOEFL-IBT score of at least 79 with sectional scores of at least 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or an IELTS score of at least 6.5. A non-native English speaking applicant holding either a Bachelor’s or a Master’s degree from a regionally accredited U.S. college or university is presumed to be English-proficient and is not required to take these tests.

**Probationary Admission**

Applicants who do not meet all requirements for Unconditional admission will be considered for Probationary admission based on the strength of all the listed admission factors. International students who do not meet the minimum requirements for demonstrating proficiency in English may be admitted on probation to the Pathway Admissions program ([https://catalog.uta.edu/academicregulations/admissions/graduate](https://catalog.uta.edu/academicregulations/admissions/graduate)) to strengthen their English skills. Under Probationary admission, special course requirements or other conditions may be imposed by the CAPPA Master's Admissions Committee. Applicants who meet all the standards for Unconditional admission except...
for deficiency in Writing GRE score will be considered for Probationary Admission conditional on completing an approved Writing course in their first semester.

1. **Other types of admission decisions pertaining to Master’s applicants:**
   a. **Deferred:** Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admisssibility can be determined, may be deferred until records are complete.
   b. **Provisional:** Applicants who are unable to supply all required documentation prior to the admission deadline but who otherwise appear to meet admission requirements may be granted Provisional admission pending submission of complete and satisfactory credentials before the end of the semester in which they have registered in a Provisional status.
   c. **Denied:** Applicants who fail to meet more than one of the admission requirements and for whom the CAPPA Master’s Admission Committee finds there is insufficient basis to justify any other kind of admission will be Denied admission. GRE test scores will not constitute the sole or primary basis for ending the consideration of an applicant. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

### Scholarship and Fellowship Criteria

- Graduate students with a GPA of 3.0 or better who are enrolled in six hours or more are eligible to apply for competitive scholarships, fellowships and the planner-in-training internship.
- Scholarships and fellowships for Master’s and Doctoral students will be competitively awarded based on consideration of all admission criteria assessed by their admitting programs.

### CAPPA Inadequate Academic Progress Point System

A student may be subject to dismissal from the program if they accumulate 4 deficiency points during their Master’s degree or their Ph.D. Students who complete a Master’s degree at CAPPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student’s record by repeating a course or additional coursework.

- **D** = 2 deficiency points
- **F** = 3 deficiency points
- **I** = 1 deficiency point
- **W** = 0.5 deficiency point

A graduate student, whose cumulative grade point average (GPA) falls below a 3.000 in all graduate courses, be they graduate or undergraduate level and taken while enrolled as a UT Arlington graduate student, may be subject to dismissal from the program. (Reference: http://catalog.uta.edu/academicregulations/academicstanding/#graduatetext)

### Master’s Degree Curriculum

The program’s curriculum imparts knowledge, skills and values necessary for entering the planning profession. The degree requires completion of 48 hours of study. The generalist core (33 hrs) is organized into three knowledge tiers: Theory, Analysis and Techniques, and Implementation and Plan Making, plus a Professional Report (3 hrs) or Thesis (6 hrs) and 9-12 hours in elective coursework.

<table>
<thead>
<tr>
<th>Core Courses</th>
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<tr>
<th>Required Professional Report or Thesis Courses</th>
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<tr>
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<th>Elective Courses</th>
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<td>PLAN 5306</td>
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PLAN 5309  TRANSPORTATION/LAND USE MODELING AND POLICY ANALYSIS   3
PLAN 5317  INTERMEDIATE DATA ANALYSIS   3
PLAN 5324  COMMUNITY DEVELOPMENT   3
PLAN 5340  GIS AND SUITABILITY ANALYSIS   3
PLAN 5341  ENVIRONMENTAL REGULATIONS: LAWS AND PLANNING   3
PLAN 5346  QUALITATIVE METHODS   3
PLAN 5356  INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS   3
PLAN 5357  INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS   3
PLAN 5361  PLANNING INTERNSHIP   3

1 Electives as approved by the Graduate Advisor or Program Director.

City and Regional Planning Students

First Year

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<tr>
<th>Summer Semester</th>
<th>Hours</th>
<th>Fall Semester</th>
<th>Hours</th>
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Second Year

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Total Hours: 48

1 Core Courses
2 Required Professional Report or Thesis Course
3 Electives as approved by the Graduate Advisor or Program Director

City and Regional Planning Students w/GIS Certification

First Year

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<th>Fall Semester</th>
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Second Year

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<td>9</td>
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</table>

Total Hours: 48

1 Core Courses
2 Required Professional Report or Thesis Course
3 Electives as approved by the Graduate Advisor or Program Director
4 GIS Core

The GIS certificate requires 15 hours of graduate course work. Up to 12 GIS-certificate-credit hours may be applied to the master’s degree in City and Regional Planning, subject to the policies on grades and graduate credit described in the Graduate School catalog (see GIS certificate information).
See the program’s Graduate Advisor for a list of approved electives in each study area, or download a copy from the MCRP webpage (https://www.uta.edu/academics/schools-colleges/cappa/academics/public-affairs-planning/m-city-regional-planning/). Other courses may be substituted upon approval of the program’s Graduate Advisor and/or Program Director.

**Thesis or Professional Report (6 hours thesis students; 3 hours thesis-substitute students)**

All MCRP students must enroll in PLAN 5380 RESEARCH QUESTIONS IN PLANNING in their next to last semester to prepare for the Thesis or Professional Report.

Thesis (minimum of 6 credit hours): This option is recommended for students who enjoy research and/or are interested in pursuing a career in research or private consulting, or who intend to obtain another advanced degree. However, this option is also available to students who intend to go into professional planning practice.

Thesis format and submission calendar must adhere to the Office of Graduate Studies’ thesis criteria. Thesis students identify a committee chair from among the Planning faculty no later than their next to last semester and, in consultation with the chair, form a thesis committee consisting of at least two additional members of the CAPPA Graduate Faculty. The thesis committee guides the student’s development of research question and choice of research method and analysis. Thesis students must defend their thesis in a public oral examination- open to all members of the faculty- and before all members of the student’s thesis committee. The thesis committee must have copies of the thesis at least two weeks prior to the thesis defense. All members of the student’s committee must be present at the defense. Thesis students must be enrolled in the appropriate section of PLAN 5698 PLANNING THESIS (under their committee chair) during the semester they receive advise from their chair and committee for preparing the thesis, as well as during the semester they defend their thesis. Once the student is enrolled in the thesis course, continuous enrollment is required.

Professional Report (3 credit hours): This option is recommended for students who are going into professional practice and/or who desire additional experience beyond the Project Studio course by working on a professional report. This option does not preclude professional report students the opportunity of further pursuing an advanced graduate degree. Students identify a professional report committee chair from among the Planning faculty no later than their next to last semester and, in consultation with the chair, form a professional report committee consisting of at least two additional members of the CAPPA Graduate Faculty. The professional report committee guides the student’s choice of planning project and method of analysis. Professional report students must defend their report in a public oral examination- open to all CAPPA graduate faculty and students- and before all members of the student’s professional report committee. Professional Report students must be enrolled in the appropriate section (under their committee chair) of PLAN 5397 PROFESSIONAL REPORT the semester in which the professional report is defended.

**Dual Degrees**

To participate in the dual degree program, students must make separate application to each program and must meet the admission requirements of each program. Students must be admitted to the second program before completing more than 24 credit hours in the first program and must complete the second degree within three academic years following completion of the first. By participating in a dual degree program, students may apply 6-18 total credit hours jointly to meet the requirements of both degrees, thus reducing the total number of hours required to earn each degree separately (shared courses are subject to approval by Program Advisors of each program). Degree plans, thesis or professional report proposals, and the final thesis or report must be submitted separately for each degree and approved by Program Advisors and relevant committees of each program. The successful candidate is awarded two degrees (not one joint degree).

Those interested in the dual degree program should consult the appropriate Program Advisors for further information and review the statement on Dual Degree Programs in the general information section of the catalog.

Dual degrees can be arranged with any suitable program. Arrangements for the following dual degrees have already been made between M.C.R.P. and the relevant Program Advisors.

- M.C.R.P. and M.Arch. (https://www.uta.edu/cappa/academics/architecture/architecture/m-architecture.php) (Master of Architecture)*
- M.C.R.P. and M.S.Ev.S.E. (Master of Science in Environmental Science and Engineering)

*MCRP students without a Bachelor’s degree in Architecture take Path A in the architecture program; those with an undergraduate degree take Path B. All 15 credit hours of electives in the M.Arch. program must be taken in the MCRP program. Only in special instances may students select the thesis substitute plan of the MCRP program. Student will write one thesis and the thesis supervisor should be selected from CIRP or the School of Architecture, and committee members should be selected from both faculties.
**MCRP students pursuing a dual degree with another program that requires a thesis (ex. MLA) must select the thesis substitute plan of the MCRP program. Student will write one thesis and the thesis supervisor should be selected from CIRP or the other program, and committee members should be selected from both faculties. If the student does not select the thesis substitute plan of the MCRP program, the student will be required to complete a thesis for both programs separately and the thesis supervisors should be selected from CIRP and the other program, and committee members should be selected from both faculties.

**Advising**

UPPP Graduate Advisor: [Link](https://www.uta.edu/academics/schools-colleges/cappa/general-advising/grad-advising/) Barbara Saenz

Director of Academic and Student Affairs / Advising Supervisor: Cheryl Donaldson

**Ph.D. in Urban Planning and Public Policy (UPPP)**

UPPP Program Director: Dr. Karabi Bezboruah

Prospective Students Contact: [Link](https://www.uta.edu/academics/schools-colleges/cappa/admissions/prospective/) James Brown, Academic Recruiter

The UPPP Ph.D. program requires a minimum of 48 credit hours beyond the master’s degree, including 39 credit hours of coursework and a minimum of 9 dissertation credit hours. The 39 credit hours of coursework include: 6 hours of leveling courses, 9 hours in the required core of urban planning and public policy, 12 hours of methods courses and 12 hours of elected field area courses. Qualified applicants hold a master's degree in planning or in another discipline or are in the process of completing the degree. Depending on the master’s degree, admission might be contingent on taking leveling courses that provide the necessary background.

**Application Requirements and Deadlines**

Along with the Office of Graduate Studies application requirements, a complete application includes:

1. Official transcripts from colleges and universities attended. Information about submitting transcripts is available in the Graduate Catalog.
2. Graduate Record Exam (GRE) and, for international applicants, the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) official test scores.
3. Three letters of recommendation attesting to the applicant’s ability to do doctoral-level work and complete the dissertation. Letters from professors or supervisors who hold a Ph.D. degree are strongly preferred.
4. Essay by applicant (minimum 500 words, maximum 1000 words). The essay is considered both for its content and writing quality. The essay should discuss: (1) tentative research topic, (2) how your undergraduate and graduate studies have prepared you for doctoral study in Urban Planning and Public Policy; (3) identify your desired field area (see field areas, below) and identify potential Planning faculty whose area relates to your research interests; and (4) the reasons for wanting to earn the doctoral degree.
5. Samples of applicant's written work (e.g., thesis, publication, professional report) that demonstrates graduate level English writing proficiency as compared to the writing proficiency of students who have successfully completed the program.

Official transcripts and test scores must be sent directly to the Office of Graduate Admissions by the issuing institution and testing agency respectively.

Letters of recommendation and personal essay should be sent directly via email to cappa.advising@uta.edu (%20cappa.advising@uta.edu) or by postal service, to: CAPPA Program - Ph.D. in Urban Planning and Policy (UPPP), Box 19108, Arlington TX 76019.

It is the applicant’s responsibility to ensure all application materials are received by the application deadline. Incomplete applications or applications received after the deadline could be deferred.

CAPPA primarily admits UPPP doctoral students for Fall semester. Spring admissions are rare and there are no summer admissions. The Fall application deadline is February 1st.

**Admission Criteria**

The Doctoral Admission Committee determines admission based on the applicant's academic record, commitment to scholarly research, and overall fit with the program.

**Unconditional Admission**

Applicants are typically admitted unconditionally with a graduate GPA of 3.6, a Verbal GRE score of at least 153 and a Quantitative GRE score of at least 144. GRE requirements are applied flexibly as different areas of study vary in the relative importance of quantitative and verbal analysis. GRE scores must be from a test taken in the past 5 years. In no case will standardized test performance be the sole or primary determinant of admissibility. Strength of letters of recommendation, quality of personal statement and master’s degree field of study are also considered carefully.
International applicants are required to have a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79. Further, when the TOEFL iBT is taken, sectional scores of at least 22 on the Writing section, 21 on the Speaking section, 20 on the Reading section, and 16 on the Listening section are preferred.

U.S. students, with a master’s degree from an accredited U.S. institution in Urban Planning, Public Administration, Public Policy or in a closely related field, or a master’s in Architecture or Landscape Architecture and several years of increasing responsibilities on the job, are not required to submit GRE scores. The Admissions Committee may require written samples demonstrating graduate level English proficiency.

The UPPP PhD Admissions Committee will consider other types of admission decisions for applicants who do not meet all unconditional admission requirements:

**Probationary Admission**
Applicants with a 3.0 graduate GPA or better and based on the strength of admission requirements (personal statement, letters of recommendation and scores on standardized tests). Under Probationary Admission, special course requirements or other conditions may be imposed by the Admissions Committee (e.g., applicants who meet all the standards for Unconditional Admission, except for required Writing GRE score, will be considered for Probationary Admission conditioned on completing an approved writing course).

Foreign applicants with low TOEFL or IELTS scores may be accepted probationary on the condition of successfully completing the Pathway Admission Program. More information about that program may be found at https://catalog.uta.edu/academicregulations/admissions/graduate/.

**Deferred Admission**
Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admissibility can be determined, may be deferred until records are complete.

**Provisional Admission**
Applicants who are unable to supply all required documentation prior to the admission deadline, but who otherwise appear to meet admission requirements may be granted Provisional Admission pending submission of complete and satisfactory credentials before the end of the semester in which they have registered in a provisional status.

**Denied Admission**
Applicants who fail to meet more than one of the admission requirements and for whom the UPPP PhD Admission Committee finds there is insufficient basis to justify any other kind of admission. GRE performance will not be the sole factor leading to a decision to deny admission. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

**Continuous Enrollment And Readmission**
UTA Continuous Enrollment Policy requires students to remain enrolled throughout the duration of their studies. UPPP students must comply with this policy by enrolling in at least three or six credit hours each fall and spring semester, depending on the stage in their program of studies. Enrollment in summer sessions is not required.

Students who are unable to continue their Ph.D. studies due to legitimate reasons can petition a leave of absence by following the university policies at https://www.uta.edu/records/graduate/leave-of-absence-loa.php. Students who are granted a leave of absence are subject to the university’s policy on readmission.

**Readmission**
Students who have been absent without approval of leave of absence, but wish to resume their graduate work, will need to follow the university’s readmission policy published at http://catalog.uta.edu/academicregulations/admissions/graduate/

Students who have been absent from the program for four or more long semesters will, in addition to the university policies, be subject to the program’s admission criteria and the program’s new procedures, guidelines, curriculum and degree requirements existing at the time of the readmission application. UPPP readmission policy and application instructions can be obtained from the UPPP Graduate Advisor: Barbara Saenz

**Graduate Assistantships & Scholarships**
Applicants who wish to be considered for graduate teaching/research assistant positions or other financial assistance, must submit their applications by their first week in February for full consideration. Only complete applications (including GRE scores and letters) will be considered for financial assistance. Students must also complete the university application for financial aid in Mav ScholarShop.

Students may be subject to dismissal from the program if they accumulate 4 deficiency points during their Ph.D. studies. Students who complete a Master’s degree at CAPPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student’s record by repeating a course or additional coursework.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
W = 0.5 deficiency point

A graduate student, whose cumulative grade point average (GPA) falls below a 3.000 in all graduate courses, be they graduate or undergraduate level and taken while enrolled as a UT Arlington graduate student, may be subject to dismissal from the program. (Reference: http://catalog.uta.edu/academicregulations/academicstanding/#graduatetext)

Ph.D. students who do not complete all requirements for the Doctoral degree within four years after passing the field examination will accrue 1 deficiency point per year beyond the four-year mark.

Curriculum and Degree Requirements:

Leveling Courses (6 hours)
- PLAN 6303: PLANNING HISTORY, THEORY AND ETHICS (3 hours)
- PLAN 6310: PLANNING, URBAN DEVELOPMENT AND STRUCTURE (3 hours)

Required Core Courses (9 credit hours)
- PAPP 6307: THE URBAN ECONOMY (3 hours)
- PLAN 6300: ADVANCED URBAN THEORY (3 hours)
- PLAN 6311: SPATIAL THEORY AND POLICY: URBAN FORM AND STRUCTURE (3 hours)

Methods Courses (12 hours)
- PLAN 6317: INTERMEDIATE DATA ANALYSIS (3 hours)
- PLAN 6301: RESEARCH FOUNDATIONS AND Ph.D. WORKSHOP (3 hours)
- PLAN 6346: ADVANCED DATA ANALYSIS IN URBAN AND PUBLIC AFFAIRS (3 hours)
- PLAN 6347: QUALITATIVE METHODS (3 hours)

Urban Planning and Public Policy Field Area Courses (12 hours)
Students take 12 hours of courses in their elected field area of planning and/or policy, preparing the student for the dissertation and beyond. Courses are determined in consultation and approval with the student’s Diagnostic/Supervisory Committee.

Students are encouraged to use faculty resources and the opportunities offered in CAPPA and UTA to specialize in following field areas or their combinations:
- Urban Policy and Planning
- Physical Planning, Development and Urban Design
- Land Use/Transportation Analysis, Planning and policy
- Environmental Planning Policy/Sustainability

Dissertation (minimum 9 hours)

UPPP Students

First Year

<table>
<thead>
<tr>
<th>Summer Semester</th>
<th>Hours</th>
<th>First Semester</th>
<th>Hours</th>
<th>Second Semester</th>
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<tr>
<td></td>
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<td>PLAN 6310</td>
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<td>PLAN 6303</td>
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<td>PLAN 6311</td>
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<td>PAPP 6307</td>
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<td>Deficiency or Field Course</td>
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<td>3 PLAN 6347</td>
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Second Year

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<tr>
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<td>3 PLAN 6346</td>
<td>3</td>
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<td>PLAN 6301</td>
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<td>3 Deficiency or Field Course</td>
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<td>PLAN 6317</td>
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Third Year

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<tr>
<td>PLAN 6399, 6699, or 6999</td>
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<td>3-9 PLAN 6399, 6699, or 6999</td>
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Fourth Year

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<td>PLAN 6399, 6699, or 7399</td>
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Total Hours: 48-66
Deficiency or Field Courses must be determined in consultation with the student’s Diagnostic Chair and/or Committee.

Students must complete a minimum of 9hrs of Dissertation and/or PLAN 7399 (Final Dissertation) which must be taken in the final graduating semester.

**Organization**

**UPPP Diagnostic/Supervisory Committee**

When students are admitted into the UPPP program, a Staff Graduate Advisor or the Program Director will advise them regarding first semester courses and registration and will assign them a faculty advisor based on the student’s interest area and/or application essay.

Students form a three-member Diagnostic Supervisory Committee toward the end of their first semester or early in their second semester and complete a diagnostic evaluation, which the Committee uses to guide them in their selection of courses, including any extra courses needed. As a part of this process, the university requires that a student and his/her Diagnostic Supervisory Committee Chair complete the Milestone form during the student’s first year of study. CAPPA will keep a copy of the completed form on file and the student will be provided a copy for his/her records.

**Deficiency & Field Courses**

The Diagnostic Committee decides and provides guidance on needed field area competencies and additional coursework based on the deficiencies noted during the diagnostic process. During the proposal preparation and proposal defense stages, the Dissertation Committee (selected by the student once all required coursework is completed) may require additional deficiency or field courses.

Deficiency courses may include courses from the selected field area and other needed courses. The final decision on field area or other deficiencies will be determined in the proposal defense session.

**Waivers or Substitutions**

Based on UT Arlington regulations, no course that has been applied to any degree, at any graduate or undergraduate institution, may be applied to any other degree, either directly or by substitution. Graduate-level coursework completed in the student’s major area of doctoral study at institutions of recognized standing that grant doctoral degrees in those subject areas may serve to establish the student’s competency in equivalent UTA courses. Competency demonstrated by successful completion of equivalent courses may provide a basis for waiving some UPPP course requirements and the credit hours associated with those courses. Waivers must be recommended by the student’s graduate advisor and current supervising professor and their recommendation must be approved by both the Committee on Graduate Studies of the student’s major area and the Office of Graduate Studies. Only courses in which the student has earned a B (3.0) or better will be considered for purposes of a waiver. Waived courses must be shown on the student’s academic plan.

**UPPP Field Area Exam**

The Diagnostic/Supervisory Committee function ceases toward the completion of the required coursework when the student must select a three-member Dissertation Committee to start working on his/her dissertation proposal. The Dissertation Committee Chair and at least the 2nd member must be chosen from among the Ph.D. Planning faculty. The 2nd member may also be selected from the PAPP Ph.D. program faculty (further information on committee members selection is provided in the UPPP Handbook). After completion of the coursework and when the student’s dissertation proposal has been sufficiently developed and is fully established in the chosen field area, the student will be given a take-home field exam by the Dissertation Committee. The exam may include questions in both broader and more specific aspects of the selected field area as well as questions designed to guide the student toward completion of the dissertation proposal. It is crucial to select the dissertation proposal topic very carefully as the dissertation is the stepping stone for the student’s future career goals, forming the first important building block of research work in the student’s field area of expertise.

Once the field exam is successfully completed, the student must continue work on the dissertation proposal which must be defended within 6 months of his/her field exam.

**POSSIBLE COURSES TO ENHANCE FIELD AREAS**

**Urban Policy and Planning**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PAPP 5304</td>
<td>URBAN POLITICS</td>
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<tr>
<td>PAPP 5309</td>
<td>LOCAL POLITICS IN THE INTERGOVERNMENTAL SETTING</td>
<td>3</td>
</tr>
<tr>
<td>PAPP 6305</td>
<td>ADVANCED THEORIES OF URBAN SOCIETY</td>
<td>3</td>
</tr>
<tr>
<td>PAPP 6311</td>
<td>ADVANCED PUBLIC POLICY FORMATION AND ANALYSIS</td>
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All CAPPA policy courses

**Physical Planning, Development and Urban Design**

**Physical Planning**

<table>
<thead>
<tr>
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<tr>
<td>PLAN 6306</td>
<td>URBAN REVITALIZATION</td>
<td>3</td>
</tr>
<tr>
<td>PLAN 6313</td>
<td>URBAN GROWTH POLICIES</td>
<td>3</td>
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<tr>
<td>PLAN 6315</td>
<td>LAND USE, MANAGEMENT AND DEVELOPMENT</td>
<td>3</td>
</tr>
<tr>
<td>PLAN 6340</td>
<td>GIS AND SUITABILITY ANALYSIS</td>
<td>3</td>
</tr>
<tr>
<td>PLAN 6358</td>
<td>INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND PLANNING</td>
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### Urban Design

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<tr>
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<tbody>
<tr>
<td>ARCH 5306</td>
<td>URBAN DESIGN</td>
<td>3</td>
</tr>
<tr>
<td>LARC 5301</td>
<td>SITE PLANNING AND DEVELOPMENT PROCESSES</td>
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<td>LARC 5302</td>
<td>LAND DEVELOPMENT PLANNING</td>
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<td>LARC 5382</td>
<td>URBAN DESIGN SEMINAR</td>
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<td>PLAN 6321</td>
<td>ELEMENTS OF URBAN DESIGN</td>
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### Real Estate Development

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<td>URBAN GROWTH POLICIES</td>
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<tr>
<td>PLAN 6345</td>
<td>PLANNING AND REAL ESTATE DEVELOPMENT</td>
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<tr>
<td>REAE 5350</td>
<td>QUANTITATIVE METHODS FOR REAL ESTATE</td>
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<td>REAE 6390</td>
<td>SEMINAR IN SPECIAL TOPICS IN REAL ESTATE</td>
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### Land Use/Transportation Analysis, Planning & Policy

#### Urban Economics

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<td>PAPP 5312</td>
<td>ECONOMIC POLICY</td>
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<tr>
<td>PAPP 6307</td>
<td>THE URBAN ECONOMY</td>
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<tr>
<td>PLAN 6322</td>
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#### Land Use/Transportation

<table>
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<tr>
<td>CE 5328</td>
<td>FUNDAMENTALS OF AIR POLLUTION</td>
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<tr>
<td>CE 5338</td>
<td>SYSTEM EVALUATION</td>
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</tr>
<tr>
<td>CE 6306</td>
<td>PUBLIC TRANSIT PLANNING &amp; OPERATIONS</td>
<td>3</td>
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<tr>
<td>CE 6308</td>
<td>ANALYTICAL MODELS IN TRANSPORTATION</td>
<td>3</td>
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<tr>
<td>PLAN 6309</td>
<td>TRANSPORTATION/LAND USE MODELING AND POLICY ANALYSIS</td>
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<td>PLAN 6315</td>
<td>LAND USE, MANAGEMENT AND DEVELOPMENT</td>
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<tr>
<td>PLAN 6325</td>
<td>TRANSPORTATION POLICIES, PROGRAMS AND HISTORY</td>
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<td>PLAN 6340</td>
<td>GIS AND SUITABILITY ANALYSIS</td>
<td>3</td>
</tr>
<tr>
<td>PLAN 6358</td>
<td>INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND PLANNING</td>
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### Environmental Planning Policy/Sustainability

#### Environmental Policy Planning

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<tr>
<td>PLAN 5341</td>
<td>ENVIRONMENTAL REGULATIONS: LAWS AND PLANNING</td>
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<tr>
<td>PLAN 5351</td>
<td>TECHNIQUES OF ENVIRONMENTAL ASSESSMENT</td>
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<td>PLAN 5342</td>
<td>ENVIRONMENTAL POLICY</td>
<td>3</td>
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<tr>
<td>PLAN 6340</td>
<td>GIS AND SUITABILITY ANALYSIS</td>
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<tr>
<td>PLAN 6350</td>
<td>ENVIRONMENTAL PLANNING</td>
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#### Environmental Science & Engineering

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<tr>
<td>CE 5329</td>
<td>ENVIRONMENTAL RISK BASED CORRECTIVE ACTION</td>
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<tr>
<td>EVSE 5310</td>
<td>ENVIRONMENTAL SYSTEMS-CHEMICAL ASPECTS</td>
<td>3</td>
</tr>
<tr>
<td>EVSE 5311</td>
<td>ENVIRONMENTAL SYSTEMS-GEOLOGICAL ASPECTS</td>
<td>3</td>
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</table>

### Dissertation Proposal

Upon completion of the coursework, students will work in preparation of their dissertation proposal. This preparation is guided by the student’s Dissertation Committee. The Dissertation committee may advise the student to take courses which provide theoretical background and techniques to prepare the student for completing the dissertation proposal. Students must also work closely with their dissertation supervisor and committee to develop their dissertation proposal. A formal proposal defense must be held, and the proposal must be formally approved by the dissertation committee before the student may continue to complete the dissertation. The dissertation represents the culmination of the student’s academic efforts and so is expected to demonstrate original and independent research activities and be a significant contribution to knowledge.

### Dissertation

A student receiving advice and assistance from a faculty member in the preparation of a dissertation must register for the appropriate course commensurate with the student’s level of effort that is equivalent to an organized course of the same credit value. Once the student is enrolled in the dissertation course, continuous enrollment is required. The student must accumulate a minimum of nine dissertation hours to graduate.

The Office of Graduate Studies offers Dissertation Seminars each semester and encourages all Dissertation students to attend.
Upon the successful defense of their dissertation proposal, the student is required to submit an application to the UT Arlington’s Institutional Review Board if their research involves human subjects. Detailed information on the application process is available at: UTA’s Human Subjects Research (https://resources.uta.edu/research/regulatory-services/human-subjects/)

Doctoral students must enroll in a minimum of 3 dissertation hours (PLAN 6399 DISSERTATION ) every long semester (Fall & Spring). The student must accumulate a minimum of nine dissertation hours to graduate. Once the student’s committee has reviewed the completed dissertation and agree that the student is ready to defend, the student enrolls in PLAN 7399 DOCTORAL DEGREE COMPLETION / in the term designated as their completion term. Students may designate only one term as the completion term. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W or F and must enroll in a minimum of 6 hours of dissertation research (PLAN 6699 DISSERTATION ) every term until graduation.

The dissertation defense is a public oral examination open to all members (faculty, students and invited guests) of the University community. Questioning of the candidate will be directed by the student’s dissertation committee. All members of the student’s committee must be present at the defense. Although the defense is concerned primarily with the dissertation research and its interpretation, the examining committee may explore the student’s knowledge of areas relevant to the core of the dissertation problem.

The dissertation defense may result in a decision that the candidate has:

1. passed unconditionally;
2. passed conditionally with remedial work specified by the committee;
3. failed, with permission to be re-examined after a specified period; or
4. failed and dismissed from the program.

The dissertation must be approved unanimously by the student’s dissertation supervising committee.

Graduate Certificates

Prospective Students Contact: (https://www.uta.edu/academics/schools-colleges/cappa/admissions/prospective/) James Brown, Academic Recruiter

CERTIFICATE IN DEVELOPMENT REVIEW

Certificate Advisor: Barbara Saenz

Director of Academic and Student Affairs / Advising Supervisor: Cheryl Donaldson

Certificate Coordinator: Dr. Ivonne Audirac

The Certificate in Development Review provides training in zoning, subdivision plat review, site design, communication skills, and urban development, while keeping in mind the interests of citizens and the spirit of places. These skills are essential for planners who want to understand proposed development activity, ensure that proposed development is consistent with a city’s vision, and facilitate review of development proposals. The program is geared for both entry-level planners/planning technicians, and for professionals in allied fields such as architecture, landscape architecture, law, engineering, and real estate.

The certificate requires completion of 15 hours of graduate-level coursework.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PLAN 5304</td>
<td>PLAN IMPLEMENTATION, ZONING, AND REGULATIONS</td>
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<table>
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<tr>
<td>Land Use and Development (select 2 from the following - 6 hours):</td>
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<td>PLAN 5305</td>
<td>LAND USE, MANAGEMENT AND DEVELOPMENT</td>
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<tr>
<td>PLAN 5306</td>
<td>URBAN REVITALIZATION</td>
</tr>
<tr>
<td>PLAN 5316</td>
<td>LAND USE PLANNING AND THE LAW</td>
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<tr>
<td>Communications (Select one from the following - 3 hours):</td>
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<tr>
<td>PLAN 5308</td>
<td>METROPOLITAN SUSTAINABILITY AND PLAN MAKING</td>
</tr>
<tr>
<td>PLAN 5363</td>
<td>LEADERSHIP AND COMMUNICATION SKILLS IN THE PLANNING PROCESS</td>
</tr>
<tr>
<td>Agencies and Policies (Select one of the following - 3 hours):</td>
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<tr>
<td>PLAN 5313</td>
<td>URBAN GROWTH POLICIES</td>
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<tr>
<td>PLAN 5328</td>
<td>PUBLIC BUDGETING</td>
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Total Hours 15
CERTIFICATE IN GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Certificate Advisor: Barbara Saenz

Director of Academic and Student Affairs / Advising Supervisor: Cheryl Donaldson

Certificate Coordinator: Dr. Jianling Li

The Geographic Information Systems (GIS) Certificate program is designed for students and professionals wishing to acquire skills in spatial data analysis. GIS is a powerful computer-based analytical tool used at all levels of government, in business, industry, and institutions. GIS skills are a must in many different fields including urban planning, engineering, geology, and the social sciences. In planning for instance, GIS skills provide professionals a spatial analytical edge with application in all areas of planning including land use, environmental, transportation and economic development planning.

Applying for admission to the GIS-Certificate program does not require the GRE or a degree in planning and should be done as a Non-Degree Seeking Special Applicant through the Graduate School. To obtain the 15-credit hour certificate, students must maintain a GPA of 3.0 in their coursework.

Up to 12 GIS-certificate-credit hours earned as a special non-degree seeking student may be applied to the Master's degree in City and Regional Planning, subject to the policies on grades and graduate credit described in the Graduate School catalog.

<table>
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<td>PLAN 5331</td>
<td>GIS WORKSHOP</td>
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<tr>
<td>PLAN 5356</td>
<td>INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS</td>
</tr>
<tr>
<td>PLAN 5357</td>
<td>INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS</td>
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<td>Select two electives, from the following, with approval of the GIS Certificate Program advisor:</td>
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<tr>
<td>Engineering</td>
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<tr>
<td>CE 5349</td>
<td>ADVANCED GIS AND HYDROLOGIC AND HYDRAULIC MODELING</td>
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<tr>
<td>CSE 5330</td>
<td>DATABASE SYSTEMS</td>
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<tr>
<td>Earth and Environmental Science</td>
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<td>GEOL 5323</td>
<td>REMOTE SENSING FUNDAMENTALS</td>
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<td>Planning</td>
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<td>PLAN 5333</td>
<td>GRAPHICS AND MULTIMEDIA COMMUNICATION IN PLANNING</td>
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<tr>
<td>PLAN 5340</td>
<td>GIS AND SUITABILITY ANALYSIS</td>
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Total Hours: 15

CERTIFICATE IN TRANSPORTATION PLANNING AND POLICY

Certificate Advisor: Barbara Saenz

Director of Academic and Student Affairs / Advising Supervisor: Cheryl Donaldson

Certificate Coordinator: Dr. Ivonne Audirac

In partnership with Civil Engineering and the Center for Transportation Equity Decisions and Dollars (CTEDD (https://ctedd.uta.edu/)), the College of Architecture, Planning and Public Affairs offers a certificate program that prepares students to plan, advocate and engineer for sustainable transportation and for better equity within existing transportation resources and infrastructure. The certificate enables students and professionals with:

- an engineering or technical background to gain knowledge in transportation planning and policy
- a planning and/or policy-related background interested in transportation to complement their degree.

The program is open to both degree and non-degree seeking students.

The certificate requires completion of 15 hours of graduate-level coursework maintaining a grade point average of 3.0 or higher.

<table>
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<tr>
<td>PLAN 5309</td>
<td>TRANSPORTATION/LAND USE MODELING AND POLICY ANALYSIS</td>
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<td>or CE 5337</td>
<td>URBAN TRANSPORTATION PLANNING</td>
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<tr>
<td>PLAN 5315</td>
<td>TRANSPORTATION POLICIES, PROGRAMS AND HISTORY</td>
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<td>PLAN 5327</td>
<td>GREEN CITIES AND TRANSPORTATION</td>
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<tr>
<td>Public Affairs</td>
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## COURSES

### PLAN 1301. INTRODUCTION TO URBAN LIFE. 3 Hours.
An examination of major urban problems, opportunities, and policy issues including crime, transportation, housing, education, welfare, and the environment with emphasis on racial, ethnic, and cultural diversity issues and alternative future possibilities; and an examination of the major political, social, and economic challenges facing contemporary urban planners and administrators - with emphasis on the interrelations among the national, state, and local governments.

### PLAN 3301. THE METROPLEX. 3 Hours.
An in-depth orientation to urban dynamics, using as a case study the Dallas/Fort Worth metroplex - with its hundreds of cities, governmental units, neighborhoods, and business enterprises as well as its major concentrations of racial minorities and ethnic groups. Special attention is paid to the changing patterns of growth and demography occurring in the Dallas/Fort Worth metropolitan area and the impact of these on emerging social, political, and economic issues of this area. Emphasis also placed on career specializations and professional opportunities in the urban context.

### PLAN 4305. FOUNDATIONS OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY. 3 Hours.
The organization, structure and practice of environmental protection at the federal, state and local levels of government. Course will develop a full understanding of how the goals of protecting human health and the environment are achieved through the implementation of environmental law, policy, practice, enforcement and collaboration among governmental entities, industry, environmental groups and the general public. Wide ranging use of case studies will be made and full engagement in new developments in the era of climate change will be achieved.

### PLAN 4310. PLANNING THE AMERICAN CITY. 3 Hours.
Students in this course will develop an understanding of the role of the private and public sectors in the development and management of the American city. It will consider such topics as the organization of city government, demographic, economic, and physical conditions analysis, land use planning, the quality of the urban environment, urban redevelopment, urban design, and regional planning. An off-campus service learning component is a key required element of this course.

### PLAN 4320. SUSTAINABLE COMMUNITIES. 3 Hours.
This course course explores broad environmental and social issues in sustainable communities. Potential topics include urban water management, food and resources, wildlife conservation, native landscaping, waste management, green building, housing diversity, public transportation and community participation. The course serves as a laboratory for working with governmental and non-governmental organizations in the DFW area and developing issue-based, action research projects to solve real-world problems in our communities. This hands-on course combines lecture, student-led discussion, site visits and collaborative team work for service learning projects.
PLAN 4327. GREEN CITIES AND TRANSPORTATION. 3 Hours.
Concepts of green cities and transportation, environmental and transportation challenges, and schools of thought on causes of environmental and transportation problems, with emphasis on planning practices and policies in relation to environmental and transportation issues and roles of planners in shaping urban landscape and infrastructure. Prerequisite: Junior standing. Department consent.

PLAN 4356. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS. 3 Hours.
Introduction to GIS and the application of computer graphics systems in the storage, processing, and retrieval of geographic urban and regional information; case examples and related projects and issues of system management.

PLAN 4357. INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS. 3 Hours.
Applications of GIS to typical urban and regional geographic information problems and projects. Prerequisite: PLAN 4356.

PLAN 4391. INDEPENDENT STUDY. 3 Hours.
Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisite: permission of the instructor.

PLAN 4394. COMMUNITY RESEARCH & APPLICATION. 3 Hours.
Exposes students to research methods typically employed in planning and to their application to a community-based research project.

PLAN 4395. STUDIES IN PLANNING. 3 Hours.
Advanced studies in various subjects of city and regional planning. May be repeated for credit as topic varies. Prerequisite: Consent of the instructor.

PLAN 5160. URBAN MANAGEMENT/PLANNING INTERNSHIP. 1 Hour.
Intended to enhance readiness for professional work through exposure to planning practice in a one semester log internship (100 hrs in the spring or fall semester or 75 hrs in the summer). Integrates work experience and coursework through journaling and reflective practice. Requirements: (1) student secures an internship from a planning related employer and approval from the student's major professor prior to enrolling in the course; (2) the intern must provide performance evaluation by the job supervisor and the intern's evaluation of the internship experience. Enrollment open to students with no previous formal planning experience. Credit not available for previous internship or planning experience. P/F grade.

PLAN 5191. CONFERENCE COURSE. 1 Hour.
Special subjects and issues as arranged by individual students and faculty members. May be repeated for credit.

PLAN 5193. MASTER'S COMPREHENSIVE EXAMINATION. 1 Hour.
Directed study, consultation and comprehensive examination over coursework leading to thesis substitute for MCRP degree. Required of all thesis substitute students who were admitted to the MCRP program prior to Fall 2009 and who are not enrolled in thesis or other thesis substitute courses during semester in which they plan to graduate. Students beginning the MCRP program in Fall 2009 or after may not choose the Master's Comprehensive Examination as a thesis substitute option and may not enroll in this course.

PLAN 5197. PROFESSIONAL REPORT. 1 Hour.
Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in PLAN 5193.

PLAN 5297. PROFESSIONAL REPORT. 2 Hours.
Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in PLAN 5193.

PLAN 5300. FOUNDATIONS OF URBAN THEORY. 3 Hours.
Spatial development of human settlements, their life cycles, expansion, and decay. Covers key theories of social, spatial, and economic structures of cities, nineteenth century to present. Considers influences of urban form and development on class, race, gender, and community.

PLAN 5303. PLANNING HISTORY, THEORY AND ETHICS. 3 Hours.
Various theories of planning including rational comprehensive, communicative action, social learning, and radical planning. Sets theories within their historical contexts, and examines the social and political details of each era to show the development of diverse planning practices and theories of planning. Evaluates the values embodied in different theories and their relationship to practice and social justice, including planning ethics as contained in the AICP Code of Ethics and Professional Conduct.

PLAN 5304. PLAN IMPLEMENTATION, ZONING, AND REGULATIONS. 3 Hours.
Introduction to plan preparation and implementation. Topics include zoning, subdivision regulations, form-based codes, site planning, strategic planning, and comprehensive planning.

PLAN 5305. LAND USE, MANAGEMENT AND DEVELOPMENT. 3 Hours.
Assesses land use, management and development and considers new directions. Relates comprehensive planning, environmental management, and land use.

PLAN 5306. URBAN REVITALIZATION. 3 Hours.
Examines various urban revitalization projects from coordinated, large-scale ventures to grassroots and informal neighborhood initiatives. Emphasis on the history, logic, politics, and implementation of these projects as well as their physical, social, and economic outcomes.

PLAN 5307. URBANIZATION IN THE DEVELOPING WORLD. 3 Hours.
Explores the social, political and spatial dimensions of urbanization processes in developing countries. Covers urban, social, and cultural movements as well as development, processes of urban-rural migration, and globalization. The course will cover all developing regions of the world with an emphasis on Latin American countries.
PLAN 5308. METROPOLITAN SUSTAINABILITY AND PLAN MAKING. 3 Hours.
Provides the background for sustainability planning at the city and metropolitan levels including plan making (e.g., comprehensive plans, small area plans, functional plans, etc.). Explores the relationship of environmental sustainability to economic vitality and social equity including planning ethics.

PLAN 5309. TRANSPORTATION/LAND USE MODELING AND POLICY ANALYSIS. 3 Hours.
Overview of transportation/land use with specific transportation models and simulation methods; topics include economic theory of travel demand, land use models, UTPS framework for travel demand estimation, disaggregated travel demand models and abstract mode models.

PLAN 5310. PLANNING, URBAN DEVELOPMENT AND STRUCTURE. 3 Hours.
Overview of functional areas of planning (e.g., urban design, housing, transportation, etc.); fundamentals of urban structure and development of cities and regions including environmental, social, economic, and political factors and issues affecting urban settlements; global dimensions of planning.

PLAN 5311. ELEMENTS OF URBAN DESIGN. 3 Hours.
Study of contemporary urban form and environmental design, emphasizing visual-spatial qualities, social needs and economic linkages. Examination of processes, methods and techniques for solving urban design problems.

PLAN 5312. STRATEGIC MGT AND PLANNING IN PUBLIC AND NON-PROFIT SERVICES. 3 Hours.
Readings and case studies of strategic planning and management in the public and non-profit sectors; application of principles to an actual situation, involving stakeholder identification, environmental scanning, and formulation of mission statements, goals, and strategies. Offered as PLAN 5312 and PAPP 5357. Credit will be granted only once.

PLAN 5313. URBAN GROWTH POLICIES. 3 Hours.
Study of the political, societal and physical policies involved in urban growth management.

PLAN 5315. TRANSPORTATION POLICIES, PROGRAMS AND HISTORY. 3 Hours.
Transportation and related programs and policies in relation to city development and housing patterns. Interdependencies of land use, building development, and social change are explained as transportation-related.

PLAN 5316. LAND USE PLANNING AND THE LAW. 3 Hours.
Explores the law of land use in the context of the American legal, economic, and political systems. Examines leading court decisions and precedents for their background, content, and applicability to contemporary land use. Offered as PLAN 5316 and PAPP 5331. Credit will be granted only once.

PLAN 5317. INTERMEDIATE DATA ANALYSIS. 3 Hours.
An intermediate level examination of statistical and research techniques appropriate to urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, Analysis Of Variance (ANOVA), logit and probit models, and techniques for data reduction (e.g., factor analysis). Offered as PAPP 5342 and PLAN 5317; credit will be granted only once. Prerequisite: PAPP 5302.

PLAN 5318. TECHNIQUES OF PLANNING ANALYSIS I. 3 Hours.
Introduction to analytical techniques used in urban and regional planning. Topics include: census data and geography and introduction to GIS, demographic analysis, cost-benefit analysis, economic base analysis, gravity models, and displaying and communicating data analysis and results in graphic, written, and oral forms.

PLAN 5319. AGENCIES OF PLANNING AND ADMINISTRATION. 3 Hours.
Contemporary managerial functions involved in running public, private, or non-profit organizations: goal setting, planning, organizing, delegating and motivating others, personal productivity and motivation, time and stress management, controlling, and project management.

PLAN 5320. DATABASE MANAGEMENT FOR URBAN PLANNING AND ADMINISTRATION. 3 Hours.
Concepts and computer applications of data management. Topics include data sources, data models, database design, data query, data analysis, and database management techniques for urban planning, management and administration. Credit will be given only once.

PLAN 5321. VISUAL BASIC AND GIS. 3 Hours.
Provides an introduction to the techniques and applications of computer graphics and mapping for presenting socioeconomic information in graphic and spatial form.

PLAN 5322. ECONOMIC DEVELOPMENT PLANNING AND POLICY. 3 Hours.
Introductory seminar in subnational economic development programs in the U.S. Covers basics of location theory, economic planning, budgeting, incentives, public and private revenue sources, analysis methods such as central place and economic base, intergovernmental efforts, redevelopment, high tech, trade and/or tourism.

PLAN 5323. HISTORIC PRESERVATION. 3 Hours.
Covers elements of historic designation, rehabilitation, financial incentives, district regulations, and preservation impacts.

PLAN 5324. COMMUNITY DEVELOPMENT. 3 Hours.
Focuses on current problems of community development and neighborhood revitalization. Housing, community assets, the roles of community development corporations and social capital in cities, and community economic development will be analyzed. Federal, state, and local policies, with grassroots initiatives evaluated for effectiveness on promoting alternatives for community building and organizing. Also offered as URPA 5313; credit will be granted only once.
PLAN 5325. PHYSICAL PLANNING AND URBAN DESIGN. 3 Hours.
Introduction to basic concepts in urban design and physical planning. Provides an understanding of how built environments evolve, and how they can be creatively planned and designed so as to meet social and ecological goals. Special attention to principles and analyses related to the physical planning of neighborhoods and streets, as well as patterns of urban form and public places.

PLAN 5326. CULTURAL PLANNING AND URBAN DEVELOPMENT. 3 Hours.
This course examines 1) the composition of the creative economy in cities around the world, 2) arts, culture, and creative economy planning and policy efforts at the neighborhood, city, and regional levels, and 3) the social, spatial and political ramifications of these efforts and of the creative economy broadly.

PLAN 5327. GREEN CITIES AND TRANSPORTATION. 3 Hours.
Concepts of green cities and transportation, environmental and transportation challenges, and schools of thought on causes of environmental and transportation problems, with emphasis on planning practices and policies in relation to environmental and transportation issues and roles of planners in shaping urban landscape and infrastructure.

PLAN 5328. PUBLIC BUDGETING. 3 Hours.
This course introduces students to the principles and practices used by federal, state, and local governments to acquire and spend revenues within the context of American democracy, capitalism, federalism, and economics. The primary objective of this course is to provide students with the practical skills and theoretical knowledge to enable them to be effective participants in the budgeting process and critical consumers and producers of research relevant to public budgeting. Offered as PLAN 5328 and PAPP 5326. Credit will be granted only once.

PLAN 5329. PUBLIC CAPITAL BUDGETING. 3 Hours.
Examines governmental capital budgeting processes with a focus on understanding the significance of capital improvement planning, public facility investment, and project evaluation to sound infrastructure financing and regional economic growth. Governments purchase or construct long-lasting physical assets or facilities financed mostly through borrowing. This course aims to understand the rationale for public capital budgeting and debt instruments used to finance capital investment in the political context of public budgeting in America. Offered as PAPP 5332 and PLAN 5329; credit will be granted only once.

PLAN 5330. TECHNIQUES OF PLANNING ANALYSIS II. 3 Hours.
Introduction to research methods, both quantitative and qualitative and mixed methods. Relating planning problem identification and definition with appropriate method of data gathering and analysis. Analysis and interpretation of qualitative and quantitative data including interview and small group techniques, and basic statistical analysis. Communication of analysis results in graphic, written, and oral forms.

PLAN 5331. GIS WORKSHOP. 3 Hours.
Skills, practical experience, problem-solving methods and techniques in geographic information systems. Capstone course for GIS Certificate Program; substitutes for one Project Planning Course. Prerequisite: PLAN 5357.

PLAN 5332. PROJECT STUDIO. 3 Hours.
Studio course working on applied city and regional planning projects within the Dallas-Fort Worth area or elsewhere. Provides students with practical experience in collaborative teamwork and the application of skills, methods, and techniques in city and regional planning, including citizen participation, problem analysis, mapping, design, presentation, working with clients, and applied planning process. Should be taken in the second half of the student's program of study, with exceptions for those with applied planning experience. May be repeated as topic changes.

PLAN 5333. GRAPHICS AND MULTIMEDIA COMMUNICATION IN PLANNING. 3 Hours.
Builds skills in the use and application of contemporary graphic techniques that enable planners to visually communicate and display data, design concepts and ideas as solutions to planning problems. Training in the use of various graphic communication and multimedia software, including online web media and print media.

PLAN 5335. PROFESSIONAL WRITING. 3 Hours.
Builds student writing skills in professional communication of ideas and information. Includes review of basic writing skills, grammatical construction, report and memo writing based on current standardized formats: considering the role of audience, writing in a clear, concise and professional style; emphasizes revising writing assignments for effective communication. Also offered as PAPP 5341; credit will be granted for only one.

PLAN 5340. GIS AND SUITABILITY ANALYSIS. 3 Hours.
Acquaints students with theoretical and practical aspects of suitability analysis process or activity allocation on land use/environmental policies. Uses Geographic Information System (GIS) and computer models for overlaying map analysis, buffering, market demand and activity locations, etc. to incorporate environmental and ecological factors into the determination of land development potential including soils, slope, drainage, vegetation, and related factors.

PLAN 5341. ENVIRONMENTAL REGULATIONS: LAWS AND PLANNING. 3 Hours.
Federal, state, and local environmental regulations which have effect on the practice of city and regional planning. Specific articles, laws, and directives contrasted and compared to local city design and development controls. Subjects include CERCLA, RCRA, SARA, TSCA, OSH Act, among others.

PLAN 5342. ENVIRONMENTAL POLICY. 3 Hours.
Focuses on the physical environmental dimensions of urbanization including such factors as pollution, waste disposal, and land use; stresses the role of economic, social, and political institutions as these affect environmental quality of the city. Offered as PLAN 5342 and PAPP 5317; credit will be granted only once.
PLAN 5343. FOUNDATIONS OF ENVIRONMENTAL POLICY. 3 Hours.
Explores how environmental controversy is rooted in conflict between a number of schools of environmental policy thought with divergent perspectives on issues such as how to define progress, how to balance the needs of economy and ecosystem, how to cope with environmental complexity, and what role science should play in environment affairs. Also offered as URPA 5365; credit will be granted only once.

PLAN 5344. HUMAN SERVICES PLANNING. 3 Hours.
Social welfare institutions: private and public; needs assessment, resource allocation, procedures, city/state/federal/private policy review; highlights of current system demands and changes. Also offered as URPA 5316.

PLAN 5345. PLANNING AND REAL ESTATE DEVELOPMENT. 3 Hours.
The goals, strategies, methods, and achievements of major participants in the urban land and building markets are examined. Land owners, speculators, real estate brokers, developers, bankers, lawyers, non-profit builders, and government agencies are studied, as well as such business tools as: market and feasibility analysis, appraisal techniques, proforma analysis, and others.

PLAN 5346. QUALITATIVE METHODS. 3 Hours.
The study of qualitative research and analysis methods. Offered as PLAN 5346 and PAPP 5344; credit will be given only once.

PLAN 5347. URBAN PROBLEMS. 3 Hours.
Specific urban problems examined in depth, traced to their historical origins to see how they or similar problems have been dealt with in other times and places. Students will then propose possible solutions to the problems in their contemporary form. Offered as PLAN 5347 and PAPP 5319.

PLAN 5350. ENVIRONMENTAL PLANNING. 3 Hours.
Overview of environmental planning issues and problems, including basic ecological principles; development and effects of the chemical industry; policies on international issues; environmental justice and ethics; environmental economics, including externalities and public goods; sustainable development; overviews of planning for air quality, water quality, solid waste, pollution prevention, habitat conservation, etc.; and plan implementation, including enforcement, regulation and funding.

PLAN 5351. TECHNIQUES OF ENVIRONMENTAL ASSESSMENT. 3 Hours.
Analysis of impact assessment documents from a variety of projects; study of federal laws and regulations governing the process; state impact assessment laws and regulations; and procedures used in other nations. Students will prepare an environmental assessment for a real-world project. Overviews of environmental site assessment, MIS documents, and environmental auditing will also be given.

PLAN 5352. ENVIRONMENT ASSESSMENT POLICY & PRACTICE. 3 Hours.
Review and analysis of the development of the environmental assessment process with focus on expectations of how environmental assessment will be transformed in the era of climate change. Students evaluate the effects of new laws and regulations and the accelerated growth of environmental policy development at all levels of government, especially among urban areas. The course includes review of selected environmental assessment documents and project case studies.

PLAN 5353. ENVIRONMENTAL LAW. 3 Hours.
This seminar examines the role of environmental law within the political-institutional framework of the American system. Emphasis is on the legal-judicial aspects of environmental regulation. Analyzes the decision of U.S. courts as these affect and interpret environmental laws and regulations for their legality and constitutionality.

PLAN 5354. HOUSING PLANNING, POLICY AND FINANCE. 3 Hours.
Evaluation of the effect of state, local, and federal housing policy on the urban arena. Topics will be selected from federal subsidy programs, tax subsidies, operations of financial intermediaries, and related areas.

PLAN 5355. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS. 3 Hours.
Introduction to GIS and the application of computer graphics systems in the storage, processing, and retrieval of geographic urban and regional information; case examples and related projects and issues of system management.

PLAN 5356. INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS. 3 Hours.
Applications of GIS to typical urban and regional geographic information problems and projects. Prerequisite: PLAN 5356.

PLAN 5357. INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND PLANNING. 3 Hours.
Concepts, components, deployments, and implementations of ITS; methods for ITS evaluations; linkage between ITS and traditional transportation planning; and issues related to ITS planning and deployment.

PLAN 5358. INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND PLANNING. 3 Hours.
Applications of computer software (for example, TransCad, Tranplan) in transportation planning modeling. Theories of residential location choice and travel behavior. Topics may include land-use and travel demand models, trip distribution models, mode choice models, and network equilibrium.

PLAN 5359. PLANNING INTERNSHIP. 3 Hours.
Intended to enhance readiness for professional work through exposure to planning practice in a one semester log internship (300 hrs in the spring or fall semester or 275 hrs in the summer). Integrates work experience and coursework through journaling and reflective practice. Requirements: (1) student secures an internship from a planning related employer and approval from the student’s major professor prior to enrolling in the course; (2) the intern must provide performance evaluation by the job supervisor and the intern’s evaluation of the internship experience. Enrollment open to students with no previous formal planning experience. Credit not available for previous internship or planning experience. P/F grade.
PLAN 5362. URBAN DIVERSITY. 3 Hours.
Examines the growing spatial and social diversity of cities; how physical as well as socioeconomic urban structures have fostered race, class, and gender inequalities; how urban policies have addressed and can address these issues. Offered as PLAN 5362 and PAPP 5362.

PLAN 5363. LEADERSHIP AND COMMUNICATION SKILLS IN THE PLANNING PROCESS. 3 Hours.
Governance and participation, comprehensive planning and the community planning process, participatory planning, and practical communication skills for planners and administrators: leadership and public meetings, participative decision making, interpersonal communications and conflict management, effective writing and presentations.

PLAN 5364. ECONOMIC BASE AND INDUSTRIAL DEVELOPMENT POLICY. 3 Hours.
Theories and methods of local and regional economic base analyses; techniques for inventorying strengths, weaknesses, opportunities and threats of local capital, labor and land resources; alternative policy responses to industrial development issues arising from economic base analysis.

PLAN 5380. RESEARCH QUESTIONS IN PLANNING. 3 Hours.
Application of research issues, writing, and communication skills in planning. Designed to assist students in preparing their research for master's thesis or professional report.

PLAN 5391. CONFERENCE COURSE. 3 Hours.
Special subjects and issues as arranged by individual students and faculty members. May be repeated for credit.

PLAN 5395. SPECIAL TOPICS IN PLANNING. 3 Hours.
Selected topics in City and Regional Planning. May be repeated for credit.

PLAN 5397. PROFESSIONAL REPORT. 3 Hours.
Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in PLAN 5193. Prerequisite: PLAN 5380.

PLAN 5398. PLANNING THESIS. 3 Hours.
Graded F/R.

PLAN 5695. TOPICS IN PLANNING. 6 Hours.
Studio, lecture or seminar course to explore and present special topics in city and regional planning. May be repeated for credit as topics change. Prerequisite: Permission of Graduate Advisor or Program Director.

PLAN 5698. PLANNING THESIS. 6 Hours.
Graded F/R.

PLAN 5998. PLANNING THESIS. 9 Hours.
Graded P/F/R.

PLAN 6161. TEACHING INTERNSHIP. 1 Hour.
Provides exposure to all aspects of course preparation and delivery including, course and syllabus design, student performance assessment, exam preparation, maintaining class records, and grading. Also, lecture and other forms of delivery of instruction. Interns co-teach with a faculty mentor, who provides feedback.

PLAN 6300. ADVANCED URBAN THEORY. 3 Hours.
Covers key theories of urbanization and socioeconomic relations. Emphasis is placed on the development of paradigms in urban theory, from classic texts to important shifts and debates in the late 20th-early 21st centuries. Considers principal theorists from urban disciplines of planning, geography, economics, sociology, and how they structure their arguments about urban form and social relations. Aimed at doctoral students, as well as advanced master's students, both from urban planning/urban affairs as well as from graduate programs outside School of Urban and Public Affairs.

PLAN 6301. RESEARCH FOUNDATIONS AND Ph.D. WORKSHOP. 3 Hours.
Examines fundamentals of research design for linking research questions to evidence, analysis, and research conclusions in urban planning, public administration, and public policy. Designed to assist doctoral students in preparing their research for dissertation. Opportunities to present work in progress, share ideas, and interact with faculty. Also offered as PAPP 6301; credit will be granted only once. Prerequisite: PLAN 5317 or PAPP 5342, PLAN 5346 or PAPP 5344 and PLAN 6346 or PAPP 6346.

PLAN 6303. PLANNING HISTORY, THEORY AND ETHICS. 3 Hours.
Various theories of planning including rational comprehensive, communicative action, social learning, and radical planning. Sets theories within their historical contexts, and examines the social and political details of each era to show the development of diverse planning practices and theories of planning. Evaluates the values embodied in different theories and their relationship to practice and social justice, including planning ethics.

PLAN 6305. SEMINAR IN URBAN PLANNING PROCESSES. 3 Hours.
Final course in urban planning field. Focus on the various political, economic, and social institutions and theoretical approaches in the planning process, and application of these multidisciplinary perspectives in the analysis of specific planning issues.

PLAN 6306. URBAN REVITALIZATION. 3 Hours.
Emphasizes the history, logic, politics, and implementation of urban revitalization projects as well as their physical, social, and economic outcomes. Examines various urban revitalization projects from coordinated, large-scale ventures to grassroots and informal neighborhood initiatives.
PLAN 6307. THE URBAN ECONOMY. 3 Hours.
Students explore theories that explain local, state, national and international economies in a predominantly urbanized country and world. The course provides an understanding of agglomeration economies that are the foundation of urban genesis, growth and stability or decline. Individual topic areas include transportation, housing, environment, education and employment. An overarching theme is understanding human behavior and decisions in the urban context drawing on the economic theories new urban economics, new economic geography, new institutional economics and others. Offered as PAPP 6307 and PLAN 6307; credit will only be granted for one.

PLAN 6308. METROPOLITAN SUSTAINABILITY AND PLAN MAKING. 3 Hours.
Provides the background for sustainability planning at the city and metropolitan levels including plan making (e.g., comprehensive plans, small area plans, functional plans, etc.). Explores the relationship of environmental sustainability to economic vitality and social equity including planning ethics.

PLAN 6309. TRANSPORTATION/LAND USE MODELING AND POLICY ANALYSIS. 3 Hours.
Overview of transportation/land use with specific transportation models and simulation methods; topics include economic theory of travel demand, land use models, UTPS framework for travel demand estimation, disaggregated travel demand models and abstract mode models.

PLAN 6310. PLANNING, URBAN DEVELOPMENT AND STRUCTURE. 3 Hours.
Planning functional domains from transportation to comprehensive planning and fundamental theories explaining urban structure and development of cities and regions.

PLAN 6311. SPATIAL THEORY AND POLICY: URBAN FORM AND STRUCTURE. 3 Hours.
Examines factors shaping urban form. Includes economic and spatial structures of cities and their implications for planning and policy issues. Outlines location theory, urban growth, density and land price, land use and spatial pattern, multi-centering and sprawl, as well as new traditional and transit oriented developments (NTD & TOD) among others. Broadens understanding of different aspects of cities and urban areas (housing, employment and commercial centers). Reflects on the connections between emergent patterns of growth and evolving transportation network.

PLAN 6312. COMPREHENSIVE PLANNING AND POLICY. 3 Hours.
Examines factors shaping urban form. Includes economic and spatial structures of cities and their implications for planning and policy issues. Outlines location theory, urban growth, density and land price, land use and spatial pattern, multi-centering and sprawl, as well as new traditional and transit oriented developments (NTD & TOD) among others. Broadens understanding of different aspects of cities and urban areas (housing, employment and commercial centers). Reflects on the connections between emergent patterns of growth and evolving transportation network.

PLAN 6313. URBAN GROWTH POLICIES. 3 Hours.
Study of the political, societal and physical policies involved in urban growth management.

PLAN 6314. LAND USE, MANAGEMENT AND DEVELOPMENT. 3 Hours.
Fundamentals of real estate development and land use planning and its intersection with the planning process. Assesses land use, management and development and considers new directions.

PLAN 6315. ELEMENTS OF URBAN DESIGN. 3 Hours.
Study of contemporary urban form and environmental design, emphasizing visual-spatial qualities, social needs and economic linkages. Examination of theories, processes, methods and techniques of urban design.

PLAN 6316. ECONOMIC DEVELOPMENT PLANNING AND POLICY. 3 Hours.
A seminar on subnational economic development programs in the U.S. Covers location theory, economic planning, budgeting, incentives, public and private revenue sources, analysis methods such as central place and economic base analysis, gravity models, and displaying and communicating data analysis and results in graphic, written, and oral forms.

PLAN 6317. INTERMEDIATE DATA ANALYSIS. 3 Hours.
Intermediate statistical and research techniques appropriate to Ph.D. level urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, Analysis of Variance (ANOVA), logit and probit models, and techniques for data reduction (e.g., factor analysis). Prerequisite: PAPP 5302.

PLAN 6318. TECHNIQUES OF PLANNING ANALYSIS I. 3 Hours.
Analytical techniques used in urban and regional planning. Topics include: census data and geography, introduction to GIS, demographic analysis, cost-benefit analysis, economic base analysis, gravity models, and displaying and communicating data analysis and results in graphic, written, and oral forms.

PLAN 6319. TECHNIQUES OF PLANNING ANALYSIS II. 3 Hours.
Analytical techniques used in urban and regional planning. Topics include: census data and geography, introduction to GIS, demographic analysis, cost-benefit analysis, economic base analysis, gravity models, and displaying and communicating data analysis and results in graphic, written, and oral forms.
PLAN 6330. TECHNIQUES OF PLANNING ANALYSIS II. 3 Hours.
Quantitative and qualitative and mixed methods research. Relating planning problem identification and definition with appropriate methods of data gathering and analysis. Analysis and interpretation of qualitative and quantitative data including interview and small group techniques, and basic statistical analysis. Communication of analysis results in graphic, written, and oral forms.

PLAN 6331. GIS WORKSHOP. 3 Hours.
Application of methods and techniques in geographic information systems to the analysis of spatial urban phenomena and spatial decision-making in regional planning and public policy. Research and project-based planning course. Prerequisite: PLAN 6357.

PLAN 6340. GIS AND SUITABILITY ANALYSIS. 3 Hours.
Provides theoretical and practical aspects of the suitability analysis process. Uses Geographic Information System (GIS) analysis and computer models for incorporating environmental and ecological factors in determining land development potential.

PLAN 6345. PLANNING AND REAL ESTATE DEVELOPMENT. 3 Hours.
The goals, strategies, methods, and achievements of major participants in the urban land and building markets are examined. Land owners, speculators, real estate brokers, developers, bankers, lawyers, non-profit builders, and government agencies are studied, as well as such business tools as: market and feasibility analysis, appraisal techniques, proforma analysis, and others.

PLAN 6346. ADVANCED DATA ANALYSIS IN URBAN AND PUBLIC AFFAIRS. 3 Hours.
An introduction to selected advanced techniques related to planning analysis. Subjects include advanced applied regression analysis, multivariate logit analysis, and multinomial logistic regression. Applications of projection techniques, land use and transportation models, and methods of regional analysis. Offered as PLAN 6346 and PAPP 6346. Credit will be given only once.

PLAN 6347. QUALITATIVE METHODS. 3 Hours.
The study of qualitative research and analysis methods. Offered as PAPP 6344 and PLAN 6347; credit will be given only once.

PLAN 6350. ENVIRONMENTAL PLANNING. 3 Hours.
Reviews environmental planning and its ecological principles; environmental effects of industrial development; policies on international issues; environmental justice and ethics; environmental economics, including externalities and public goods; sustainable development; overview of planning for air quality, water quality, solid waste, pollution prevention, habitat conservation, etc.; and issues of plan implementation, including enforcement, regulation and funding.

PLAN 6357. INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS. 3 Hours.
GIS applications to typical urban and regional geographic information problems and projects. Prerequisite: PLAN 5356.

PLAN 6358. INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND PLANNING. 3 Hours.
Concepts, components, deployments, and implementations of ITS; methods for ITS evaluations; linkage between ITS and traditional transportation planning; and issues related to ITS planning and deployment.

PLAN 6361. TEACHING INTERNSHIP. 3 Hours.
Provides exposure to all aspects of course preparation and delivery including, course and syllabus design, student performance assessment, exam preparation, maintaining class records, and grading. Also, lecture and other forms of delivery of instruction. Interns co-teach with a faculty mentor, who provides feedback.

PLAN 6399. DISSERTATION. 3 Hours.
Graded R/F only.

PLAN 6691. CONFERENCE COURSE. 6 Hours.
Special subjects and issues as arranged by individual students and faculty members. May be repeated for credit.

PLAN 6699. DISSERTATION. 6 Hours.
Graded R/F/P/W only.

PLAN 7399. DOCTORAL DEGREE COMPLETION. 3 Hours.
This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.