ENVIRONMENTAL IMPACT ASSESSMENT SEMINAR

INSTRUCTOR: Bob Paterson

FALL 2017 – M,W 11-12:30
West Mall Bldg 4.118

COURSE SYLLABUS

Course Overview

This course provides instruction in the theory and methods of environmental impact assessment (EIA). The course objectives are to (1) gain a critical understanding of the use, strengths, and limitations of EIA, and (2) develop working familiarity with EIA methods and analytic techniques. EIA is used in a variety of ways in professional planning practice including: (1) evaluation of proposed state, regional and local comprehensive plans; (2) evaluation of proposed public and private development projects, and (3) evaluation of proposed government policies and programs. EIA is mandated at the federal level through the National Environmental Policy Act (NEPA), at the state level through mini-NEPA statutes (e.g., California, Washington, and New York), and in many localities throughout North America and the world through local impact assessment ordinances.

In the first part of the course we will review the evolution of environmental impact assessment requirements in the US at federal, state and local levels. We will critically analyze federal and state environmental assessment (EA) and environmental impact assessment (EIA) requirements, and how these analytic requirements interact with various other state and federal planning statutes. We will also review current controversies in EIA
practice, including such issues as project segmentation, indirect and cumulative impacts, misuse of mitigated FONSIs, post EIS monitoring/impact auditing, inclusion of local cooperators, and reconciling EIA practice with principles of sustainable development. We will collectively devise “best practice” rules for undertaking EIA. Students will analyze an Environmental Impact Report or Final Environmental Impact Statement (EIS) and share their findings so we can collectively gain understanding of the various assessment techniques, analytic approaches and reporting formats.

The remaining portion of the course focuses on the theory and methods of impact assessment. EIA is an inherently interdisciplinary team effort where the planner and other professions are frequently expected to compile and synthesize the research results of many professionals into a coherent, accessible and defensible EIS report. Therefore, it is essential to have a sophisticated understanding of all the various tools and techniques used in EIA, including the model assumptions and their limitations. We will use two case examples throughout the course to examine impact assessment methods and techniques. We will look specifically at: (1) environmental impact assessment methods for noise, water quality, air quality, hazards, wetlands and biological impacts; (2) social impact assessment methods for visual, cultural, environmental justice and social/quality of life impact models; (3) public service impact assessment methods for traffic, potable water, solid waste, schools, and others; and (4) fiscal impact assessment methods (both marginal and average cost approaches). As an environmental elective, greater emphasis is placed on the first three groupings of methods and techniques—environmental, social and public services impact assessment.

We will use readings, case studies, class discussions, audio-visual materials, class presentations, guest lectures, and simulation assignments to accomplish the course objectives. The class is open to all graduate students with an interest in environmental planning and policy. The course is likely to be of most interests to graduate students in planning, geography, public affairs, engineering, landscape architecture and sustainable design.

Grading

There are two EIA method assignments that count for 30% of the final grade. A critique of a federal or state environmental impact statement, that the student selects based on his/her interests, will count for another 40% of the final grade for the written portion of the analysis, and will count for 15% of the final grade for the oral presentation (which will be presented in class at the end of the semester). The professor will provide guidelines on what makes for an “effective public presentation” in class, so students may be well prepared. The “take home” final exam will count for 15% of the course grade. This is a graduate seminar—it is critical that you read assignments in advance of class and come prepared for discussion.
Course Texts

Course-Pak Reader on line Canvas