

## **CME 430 - Land Development, 3 Credits**

Fall 2012, 1:00 - 1:50 pm Mondays, Wednesdays, and Fridays, Location CIE 102

**Instructor:** Dr. Darshi De Saram      Telephone: 701-231-7880  
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Office Hours: Mondays and Wednesdays 8.00 – 11.00 am

**Catalog Description:** An introduction to the practical applications of the planning, design, and construction phases of the land development process. Prerequisites: CM&E 204, CM&E 212, Construction Management major, and Senior standing.

## **Basic Course Objectives:**

- 1) Develop ability to conduct site selection and analysis for land development
  - 2) Develop ability to conduct a market research for land development
  - 3) Become conversant are you with land use regulations in this area
  - 4) Develop ability to manage and coordinate the development of a conceptual plan for a proposed land development
  - 5) Develop ability to manage and coordinate the development of a water supply system for a proposed land development
  - 6) Develop ability to manage and coordinate the development of a sanitary sewer system for a proposed land development
  - 7) Develop ability to manage and coordinate the development of a storm water management system for a proposed land development
  - 8) Develop ability to develop a cost estimate for a proposed land development
  - 9) Develop ability to conduct economic feasibility studies for a proposed land development

**Textbook:** Land Development by Charles McIntyre (available by chapter at the Blackboard site of this course)

## **Course Outline:**

Learning is achieved by students working in groups to propose a development plan for a parcel of land in Fargo, ND.

Weeks	Activities*	Reading Assignments
1 to 4	<ul style="list-style-type: none"> <li>• Site visit and analysis</li> <li>• Guest lecture on site analysis</li> <li>• Guest lecture on market research</li> <li>• Student group presentations on market research</li> <li>• Turn in group project assignments on:               <ul style="list-style-type: none"> <li>– Assignment 1: Market Research, and</li> <li>– Assignment 2: Site Analysis</li> </ul> </li> </ul>	<p>Chapter 1 – Introduction to Land Development (pp 1-15)</p> <p>Chapter 2 – Market Research (pp 16-25)</p> <p>Chapter 3 – Land Use Regulations (pp 26-40 and Appendix A)</p> <p>Chapter 4 – Site Selection and Analysis (pp 41-51 and Appendix B)</p>
5 to 7	<ul style="list-style-type: none"> <li>• <i>Graduate students would lead a series of discussions on positive (increasing livability) and negative planning efforts in other cities worldwide</i></li> <li>• <i>Graduate students will turn in a research report comparing livability of cities worldwide</i></li> <li>• Introduction to Fargo Land Development Code</li> <li>• Guest lecture introducing ‘Go 2030: The Fargo Comprehensive Plan’</li> <li>• Guest lecture on Long Range Planning</li> <li>• Prepare a conceptual plan to develop the site</li> <li>• Make an oral presentation to the class explaining your proposed conceptual plan</li> <li>• Turn in group project assignment:               <ul style="list-style-type: none"> <li>– Assignment 3: Conceptual Planning</li> </ul> </li> </ul>	<p>Chapter 5 – Conceptual Plan (pp 52-71 and Appendix C)</p>

Weeks	Activities*	Reading Assignments
8 to 13	<ul style="list-style-type: none"> <li>• Graduate students would lead a series of discussions on developments in:           <ul style="list-style-type: none"> <li>– Storm Water Retention/Detention</li> <li>– Potable Water Distribution, and</li> <li>– Waste Water Collection</li> </ul> </li> <li>• Graduate students will turn in a research report on the above three topics</li> <li>• Design for Storm Water Handling, Potable Water Distribution and Waste Water Collection</li> <li>• Guest lecture 1: City Engineering</li> <li>• Guest lecture 2: City Engineering</li> <li>• Student presentations on           <ul style="list-style-type: none"> <li>– Storm Water Handling</li> <li>– Potable Water Distribution, and</li> <li>– Waste Water Collection</li> </ul> </li> <li>• Turn in group project assignments:           <ul style="list-style-type: none"> <li>– Assignment 4: Storm Water Handling</li> <li>– Assignment 5: Potable Water Distribution</li> <li>– Assignment 6: Waste Water Collection</li> </ul> </li> </ul>	Chapter 6 – Site Engineering (pp 72-129)
14 to 16	<ul style="list-style-type: none"> <li>• Develop a cost estimate for the project</li> <li>• Conduct economic feasibility studies on the project</li> <li>• Student presentations on the Project Estimate and the Economic Feasibility</li> <li>• Turn in group project assignments:           <ul style="list-style-type: none"> <li>– Assignment 7: Cost Estimate and the Financial Plan</li> <li>– Final Group Project binder complete with an executive summary</li> </ul> </li> </ul>	Chapter 7 – Cost Estimates and Project Financing (pp 130-146)

\* Activities stated in regular font are for all students, while *those in italics* are for graduate students only. Additionally, from graduate students, greater rigor will be expected at all times.

Interim and midterm evaluations will be by way of assessing the project stages that are turned in. For example, by the end of the 7<sup>th</sup> week, the following 4 assignments will be complete, and would be the material for the midterm assessment:

- Assignment 1: Market Research
- Assignment 2: Site Analysis
- Oral presentation to the class explaining the proposed conceptual plan
- Assignment 3: Conceptual Planning

**Grading:**      Group Project Assignments      90%  
                     Final Group Project      10%

Peer Evaluation will be used to determine individual grades based on the final group grade.  
 (Peer Evaluation will be explained in detail during class time)

**Grade Distribution:**      90 – 100 A;      80 – 89.9 B;      70 – 79.9 C;      60 – 69.9 D;      < 60 F

#### **Submission of Assignments:**

Project Assignments must be turned in by 1:00 p.m. on the day that they are due. Assignments will be accepted up to one week after the due, however, late assignments will receive a maximum grade of 50%. There will be no credit for assignments handed more than one week late.

**Attendance**

In accordance with NDSU policy 333: Attendance in classes is expected. Only the course instructor can excuse a student from course responsibilities.

**ADA Statement:**

Any students with disabilities or other special needs, who need special accommodations in this course are invited to share these concerns or requests with the instructor and contact the Disability Services Office as soon as possible.

**Veterans and Student Soldiers**

Policy 331.1 "Veterans and student soldiers with special circumstances or who are activated are encouraged to notify the instructor in advance."

**Academic Honesty Statement:**

All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct [www.ndsu.edu/academichonesty](http://www.ndsu.edu/academichonesty); and the Engineering & Architecture Honor System which can be found at <http://www.ndsu.edu/cea/CEA%20Honor%20Code%20Final%20Version.pdf>.

Any student who submits plagiarized or duplicated work will be removed from the course and be given a failing grade for the semester.