Academic Programs

• Many different paths to success
• Many different student needs

MS/MCE
- Develop a program that makes sense to YOU
- Research – develop expertise (guided)

PhD
- Develop and conduct research
- Build on MS/MCE – specialized expertise
Academic Programs: PhD

- Total ~ 3 to 4 years

- Masters + 18 to 24 hrs. typical (+2 to 3 semesters)
  - Course selection with support from advisor/committee

- Preliminary Exams
  - Written + Oral; early in 3\textsuperscript{rd} semester
  - Develop feasible research plan
  - 4 to 5 person committee (one outside department rep)

- Final Defense
Academic Programs: MS/MCE

MS
- “Thesis” 3 – 6 hours of research
  - MS if funded - RA
  - Need advisor + 2 person committee
  - TA selected by faculty

MCE
- Only coursework in most cases
  - “3 Hour Project” if approved by faculty

Jobs: not much difference
Academic Programs: MCE Requirements

- *Minimum 7* CON courses
- 1 course in CE (not from CON)
- 2 "Supporting" courses (see course choice list)
- Total 10 courses = 30 credit hours
- No more than 12 hours per semester!

A complete 30 hour Graduate Plan is due to the construction faculty prior to the end of the first semester.
Academic Programs: MS Requirements

- Same as MCE except:
  - Select courses that support research – recommended courses by advisor

- Minimum 7 CON courses
- 1 “Supporting” course (see course choice list)
- Total 8 courses = 24 credit hours
- Thesis = 6 credit hours
- No more than 12 hours per semester!

A complete 30 hour Graduate Plan is due to the construction faculty prior to the end of the first semester.
CE Courses

- CE 536 Numerical Methods
- CE 537 Computer Methods & Applications
- CE 538 Information Technology (Rasdorf) (Spring 2019)
- CE 592 Robotic Vision Systems (Han)
- CE 522 Pre-stressed Concrete Design
- CE 523 Steel Design
- CE 524 Masonry Design
- CE 528 Wood Design
- CE 548 Engineering Properties of Soils
- CE 549 Soil & Site Improvement
- CE 744 Foundation Engineering
- CE 503 Highway Design
- CE 504 Airport Design (for Navy and Air Force officers)
- CE 755 Pavement Design
- CE 590 Facilities Engineering (Fall)
Supporting Courses

• All CON Courses

• Specified CE Courses

• Other Courses
  o ISE 501 Operations Research
  o ISE 510 Applied Engineering Economy
  o ISE 562 Simulation Modeling
  o ST 515 Experimental Statistics for Engineers I
  o ST 516 Experimental Statistics for Engineers II
  o EGR 590-601 Environmental Compliance for Facilities Engineers (Spring)
  o CE 675 Project (3 hour maximum)
# MCE Plan

Name: ___________________

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