

Syllabus

CE 8953 Fine Sediment Processes

Spring 2009

Description:

Fine sediment processes in transport, deposition, and erosion by water. Fluid-particle interactions, flocculation processes in clay sediments, lutocline formations and fluid mud, bed formation and erosion processes.

Prerequisites:

Consent of instructor

Instructor:

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Research Professor
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662-325-9848
662-325-7189 Fax

Students are strongly encouraged to communicate with me through visits, email, and phone to resolve questions.

Text Resources:

One text must be obtained by each student: *Sedimentation Engineering: Processes, Measurements, Modeling, and Practice*, Manuals and Reports on Engineering Practice No. 110, by Marcelo Garcia (Editor), ISBN: 784408149. American Society of Civil Engineers. This manual is available from multiple sources, including the MSU bookstore. However, it can be purchased directly from ASCE at a negotiated discount for this course only by using the order form posted on the course web site.

Topics:

Topics to be covered will be selected from the following.

1. Introduction
2. Fine Sediment Classification
3. Flocculation
4. Sediment Characterization
5. Transport
6. Settling and Deposition
7. Bed formation
8. Erosion and Entrainment
9. Fluid Mud

COURSE MATERIALS ON THE WEB

Announcements and materials for this course will be posted on the MSU MyCourses class web site, as described below. Students are expected to log in to the class web page regularly for course announcements, materials (syllabus, assignments, handouts, reference materials, etc.), and to participate in the online discussions. Announcements for exams and class cancellation, if necessary, will be posted there, and handouts will be placed there for viewing or download, so logging in before class time each day is recommended. Class videos and notes will be posted there after the lectures, usually within 24 hours.

To log in to the class web page, use the MSU OnCampus portal (oncampus.msstate.edu) where “username” is your MSU netid. See the instructor if you don’t know your netid or password. Change the default password when you log in for the first time. At the Welcome page, click on the “Classroom” tab at the top, then on the course name/number in the left viewing pane to access the class web page.

Mitchell Memorial Library offers a research guide for water resources at <http://library.msstate.edu/resources/guides/Water.asp>

ASSESSMENT METHODS

<u>Average</u>	<u>Grade</u>
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
< 60	F

1. Assignments - 30%
2. Participation/Collaboration 10%
3. 2 Exams at 30% each

Participation consists of actively participating in the online Discussion forums, with the assigned grade a combination of number of comments/accessions/postings and their quality. A good quality posting poses a thoughtful question, makes a good technical point, identifies a good resource, or helps the professor and/or other students better understand the subject matter.

Gray zone: Final grades in the top of each letter zone (88-89; 78-79; etc.) may be adjusted upwards at the instructor’s discretion if test grades have been improving during the semester or if class participation, including online collaboration, has been excellent.

Assignments

Assignments will be turned in by 5 pm on the due date. Assignments turned in after the due date will be accepted for up to one week after the due date, receiving a 50% reduction in grade except in unusual mitigating circumstances. No assignments will be accepted more than a week late.

Answers, with numerical solutions consisting of a magnitude, units, and direction/sign as applicable, will be boxed or highlighted.

A subset of assignment problems may be selected for grading, i.e., not every problem will necessarily be graded.

Exams

Exams will be designed to assess and promote a student's mastery of the material. The final exam will be comprehensive.

Absence from an exam without a certified medical excuse or prior instructor approval will result in a grade of zero. Excused missed exams can be made up by a special exam near the end of the semester.

Policies

Academic honesty is a basic requirement and academic misconduct will be handled in accordance with guidelines and procedures outlined in the Academic Misconduct Policy, which may be accessed on the web at:

<http://www.msstate.edu/dept/audit/1207A.html>

Please note especially that:

- Plagiarism is forbidden (students are expected to understand plagiarism and how to avoid it). See http://www.engr.msstate.edu/current_students/technical_communications_program/tcp/plagiarism.htm)
- Students are encouraged to collaborate on assignments, with the understanding that collaboration consists of exchanging ideas and helping each other, not copying what someone else has already done.
- Collaboration of any kind on exams is prohibited.

Students are expected to use the MyCourses class web page and email to stay abreast of course events and requirements.

The instructor will communicate with students outside of class by MyCourses announcements and email. Email will be addressed to each student's official MSU email address unless other arrangements have been made.