Syllabus for CE 6340 – Urban Hydrology

Instructor:  Lloyd (Chris) Wilson, Ph.D., P.E.
President, Wilson Engineering
314-650-0023 (c)
lcwilson@mst.edu
cwilson@wileng.com (emergency)

Textbook: Urban Hydrology, Hydraulics and Stormwater Quality, Akan and Houghtalen

A. Introduction and Course Organization
B. Rainfall
C. Rainfall Excess
D. Open Channel Flow
E. Runoff Rates
F. Drainage Structures
G. Detention and Quantity Management
H. HEC-HMS and EPA-SWMM
I. Stormwater Pollution
J. Best Management Practices
K. Flood Plain Management
L. St. Louis MSD Rules and Regulations
Grading:

- Homework: 35%
- Mid-term Exam: 15%
- Comprehensive Final Exam: 25%
- Semester Projects: 20%
- Class attendance & participation, pop quizzes, and Canvas discussion: 5%

Policies:

- Attendance in class is strongly encouraged. Please contact me in advance if you will be unable to attend in real-time.
- Undergraduate hydrology course is a prerequisite; although basic topics will be reviewed, students are expected to have a firm grasp of the basic material.
- Reading assignments associated with a lecture must be completed prior to class; class participation will be judged and if inadequate, pop quizzes will be given to assure compliance.
- Communicate via Canvas messages and discussion boards; students are strongly encouraged to ask each other for help, check each other's work, and collaborate on homework and the semester project. A separate topic will be created for each assignment. In addition, questions for the instructor should be posted there for all to see.
- You should ask questions in class. If you are having trouble with a homework assignment, work with a classmate on Canvas first, and if you still have trouble, you can contact me by email or phone.
- Homework assignments to be completed in professional manner:
  - All problem statements included
  - List of assumptions and methods used
  - Clearly defined method of solution
  - Hand-written or formatted for printed letter report
  - Solution clearly indicated
  - Submitted in PDF format with supporting documents separate (e.g., Excel)
  - Please name your submitted files such that your name and assignment number are included (e.g., WILSON_HW4.pdf)
  - Homework which fails to meet minimum requirements will be returned ungraded and must be resubmitted within 1 week
- Homework must be submitted to Canvas by the date and time indicated to achieve full credit. A 25% penalty will be applied for late homework, however homework submitted more than one week late will not be accepted.
- A water resources engineer’s best friend is Microsoft Excel. You are expected to be competent in use of formulas and conditional statements.
University Policies:

- Student Honor Code and Academic Integrity
  - Become familiar with the honor Code developed and endorsed by the Missouri S&T Student Council: [http://stuco.mst.edu/about/honor-code](http://stuco.mst.edu/about/honor-code)
  - Page 30 of the Student Academic Regulations handbook describes the student standard of conduct relative to the University of Missouri System’s Collected Rules and Regulations section 200.010, and offers descriptions of academic dishonesty including cheating, plagiarism or sabotage: [http://registrar.mst.edu/academicregs/index.html](http://registrar.mst.edu/academicregs/index.html)
  - Other informational resources for students regarding ethics and integrity can be found online at [http://ugs.mst.edu/academicintegrity/studentresources-ai](http://ugs.mst.edu/academicintegrity/studentresources-ai)

- Academic Alert System: [http://academicalert.mst.edu](http://academicalert.mst.edu)
  - The purpose of the Academic Alert System is to improve the overall academic success of students by improving communication among students, instructors and advisors; reducing the time required for students to be informed of their academic status in a course; and informing students of actions necessary by them in order to meet the academic requirements in their courses.

- S&Tconnect: [https://canvas.mst.edu/](https://canvas.mst.edu/) (S&Tconnect icon on left toolbar)
  - S&Tconnect provides an enhanced system that allows students to request appointments with their instructors and advisors via the S&Tconnect calendar, which syncs with the faculty or staff member’s Outlook Exchange calendar. S&Tconnect will also facilitate better communication overall to help build student academic success and increase student retention. S&Tconnect Early Alert has replaced the Academic Alert system used by Missouri S&T. If training is needed, please contact Rachel Morris at rachelm@mst.edu or 341-7600.

- Classroom Egress Maps:
  - The class producer will explain where the classroom emergency exits are located for Rolla students. Please familiarize yourselves with the classroom egress maps posted online at [http://designconstruction.mst.edu/floorplan/](http://designconstruction.mst.edu/floorplan/)

- Accessibility and Accommodations:
  - It is the university’s goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please contact Disability Support Services at (573) 341-6655, dss@mst.edu, or visit [http://dss.mst.edu](http://dss.mst.edu) for information, or go to [http://mineraccess.mst.edu](http://mineraccess.mst.edu) to initiate the accommodation process.
  - *Please be aware that any accessible tables and chairs in this room should remain available for students who find that standard classroom seating is not usable.

- LEAD Learning Assistance ([http://lead.mst.edu](http://lead.mst.edu))
  - The Learning Enhancement Across Disciplines Program (LEAD) sponsors free learning assistance in a wide range of courses for students who wish to increase their understanding, improve their skills, and validate their mastery of concepts and content in order to achieve their full potential. LEAD assistance starts no later than the third
week of classes. Check out the online schedule at http://lead.mst.edu/assist, using zoom buttons to enlarge the view. Look to see what courses you are taking have collaborative LEAD learning centers (bottom half of schedule) and/or Individualized LEAD tutoring (top half of the schedule). For more information, contact the LEAD office at 341-7276 or email lead@mst.edu.

• The Burns & McDonnell Student Success Center
  o The Student Success Center is a centralized location designed for students to visit and feel comfortable about utilizing the campus resources available. The Student Success Center was developed as a campus wide initiative to foster a sense of responsibility and self-directedness to all S&T students by providing peer mentors, caring staff, and approachable faculty and administrators who are student centered and supportive of student success. Visit the B&MSSC at 198 Toomey Hall; 573-341-7596; success@mst.edu; facebook: www.facebook.com/SandTssc; web: http://studentsuccess.mst.edu/

• Title IX
  o Missouri University of Science and Technology is committed to the safety and well-being of all members of its community. US Federal Law Title IX states that no member of the university community shall, on the basis of sex, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any education program or activity. Furthermore, in accordance with Title IX guidelines from the US Office of Civil Rights, Missouri S&T requires that all faculty and staff members report, to the Missouri S&T Title IX Coordinator, any notice of sexual harassment, abuse, and/or violence (including personal relational abuse, relational/domestic violence, and stalking) disclosed through communication including but not limited to direct conversation, email, social media, classroom papers and homework exercises.
  o Missouri S&T’s Title IX Coordinator is interim chief diversity officer Neil Outar. Contact him (naoutar@mst.edu; (573) 341-6038; Temporary Facility A-1200 N. Pine Street) to report Title IX violations. To learn more about Title IX resources and reporting options (confidential and non-confidential) available to Missouri S&T students, staff, and faculty, please visit http://titleix.mst.edu.