

Syllabus and Course Information

TIME AND PLACE

Lectures: **001:** MWF 8:50am - 9:40am, 1240 CS
 002: MWF 11:00am-11:50am, 1240 CS

Discussion: Wednesday, 6-7 PM, 3418 EH; Thursday, 4-5 PM, 3418 EH

Demo groups: Location: 3650 Engr. Hall (detailed grouping will be decided)

Sec.	Date and Time	Group	Sec.	Date and Time	Group
601	M, 3:45 - 5:45 PM	A	602	M, 3:45 - 5:45 PM	B
603	W, 2:25 - 4:25 PM	A	604	W, 3:30 - 5:30 PM	B
605	R, 2:25 - 4:25 PM	A	606	R, 3:30 - 5:30 PM	B
607	R, 7:00 - 9:00 PM	A	608	W, 7:00 - 9:00 PM	B
609	W, 7:00 - 9:00 PM	A	610	T, 7:00 - 9:00 PM	B

INSTRUCTORS

001: Marta E. Prada
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Office hours: TBA

002: Yu Hen Hu
3625 Engineering Hall, Phone: 262-6724
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TEACHING ASSISTANTS

Kasturi Bidarkar
Sean Franey
Shreesh Srinath
Meng Shi

All TA office hours are held in **3650 EH**
Office hour times to be announced later
TA email: ece352@cae.wisc.edu

CREDITS 3

PREREQUISITE ECE 252 or equivalent

CLASS HOMEPAGE <http://www.ece.wisc.edu/~hu/ece352/> .

Private course materials are posted at Learn@UW at <https://learnuw.wisc.edu/>

GOALS

To be able to analyze and design digital logic systems by understanding formal foundations and selected design techniques.

TOPICS

Boolean algebra, logic components, combinational logic analysis and synthesis, synchronous & asynchronous logic analysis and synthesis, digital subsystems, basic computer organization and design.

TEXTBOOK

- M. Mano and C. R. Kime, **Logic and Computer Design Fundamentals**, 4th Ed., Pearson Prentice Hall, 2007.
- ECE 352 Course materials posted online (Learn@UW) are also required reading.

COMPUTER USE

Applied Homeworks will require using CAD software on CAE (Computer-Aided Engineering) workstations to perform simulation and design verification. Learn@UW will be used for the main course website, including online grade access and course material distribution. Email will be used extensively to communicate with the class. Students should verify that their UW email information is correct, and check their email *daily* during the course for important class announcements.

HOMEWORKS

The course will have both Written and Applied Homeworks. Assigned homework provides essential practice of class concepts and deepens topic understanding, which in turn is essential to preparation for midterms and the final examination.

- **Written Homework:** Written Homework provides practice with lecture concepts, vital feedback to students as to how well they understand course topics, and a mechanism to grade students' understanding of lecture materials. Approximately 10 Written Homeworks will be assigned.
- **Applied Homework:** Applied Homeworks provide hands-on experience, a more in-depth understanding of the application of course concepts, and a mechanism to grade students' ability to synthesize and apply lecture material to real problems. Five Applied Homeworks will be assigned. Work is to be completed prior to the demo times ("Lab" in the Timetable). Students will also be required to write short pre- and post-demo reports for each Applied Homework.

Note that for the Applied Homework, the required effort occurs primarily prior to the demonstration. Computers will be available in the demo room for students to use in completing these assignments. However, most work can be completed on any CAE computer. Specific instructions will be provided for each Applied Homework.

GRADING POLICY

15%	Written Homework
25%	Applied Homework
30%	Midterm Exams
30%	Final Exam