

Masonry Structures (3) Syllabus

CATALOG DESCRIPTION

This course provides an understanding of the behavior and strength of masonry structures. This includes both reinforced and unreinforced walls, columns and beams. Material properties of different masonry units (brick, block and tile) and construction details are examined. Lateral loads and shear walls are included.
Pre-requisite: ARCH 324 or equivalent

OBJECTIVES

Students are introduced to the basic masonry materials of clay brick, concrete block, mortar and grout as well as reinforcing. Basic analysis and design procedures based on applicable codes of practice are explored. This includes both reinforced and unreinforced walls, columns and beams as well as masonry vaulting. Use is made of the appropriate codes including the TMS 402, the NCMA TEK Notes and Manuals and the BIA Technical Notes.

ORGANIZATION

The course is lecture based, and the concepts and procedures are taught in this context with classroom and homework problems solved by the students. The course has a website, which is used for the posting of lecture material and for students to enter homework solutions.

<http://www.frames.tcaup.umich.edu/>

EVALUATION

Evaluation is based upon two exams (midterm and final); a series of homework problems (approximately one per week) spaced throughout the semester and a special project. All work will be set on a 100 point scale with grades assigned as follows:

	A	100 – 93.0	A-	92.9 – 90.0	
B+	89.9 – 87.0	B	86.9 – 83.0	B-	82.9 – 80.0
C+	79.9 – 77.0	C	76.9 – 73.0	C-	72.9 – 70.0
D+	69.9 – 67.0	D	66.9 – 63.0	D-	62.9 – 60.0
	E	59.9 – 0.0			

By University policy the minimum passing grade is a D (63.0).

Scores for the grades are proportioned as follows:

Topic Quiz (Canvas)	45%
Homework Problems	40%
Prism Testing	15%

TOPIC QUIZZES

Topic quizzes are questions covering the lectures. They are found on the course Canvas site.

TEXTS

The text used are the *TMS402/602-19* code (excerpt on Canvas), and also *Masonry Structures: Behavior and Design* by Robert Drysdale, Ahmad Hamid and Lawrie Baker will be referenced (not required).

COURSE WEB SITE

Course notes will be maintained through a course web site <http://www.frames.tcaup.umich.edu/>
This will include homework submissions. Some material will also be posted on the Canvas site.

Course Evaluation

Online course evaluations will be available at the end of the term. Every student is encouraged to fill out the evaluation. Any comments or suggestions for the ongoing improvement of the course are most welcome.



Accommodations for Students with Disabilities

If you think you need an accommodation for a disability, please inform the instructor. Some aspects of this course – including assignments, and in-class activities – may be modified to facilitate your participation and progress. We will work with Services for Students with Disabilities to determine appropriate academic accommodations. We will treat any information you provide as private and confidential.

Taubman College Academic and Professional Student Conduct Policies

[These policies](#) apply to all Taubman College students as well as non-Taubman College students who take courses within the college. Although this website provides definitions of academic dishonest and plagiarism, you might want to specifically write the plagiarism definition into your syllabus. It is also worth repeating when handing out assignments. Here is the definition and a summary of the associated policy: "Plagiarism is knowingly presenting another person's ideas, findings, images or written work as one's own by copying or reproducing without acknowledgement of the source. It is intellectual theft that violates basic academic standards. In order to uphold an equal evaluation for all work submitted, cases of plagiarism will be reviewed by the individual faculty member and/or the Program Chair and Associate Dean of Academic Affairs. Punitive measures will range from failure of an assignment to expulsion from the University."

Information on sources for assistance in writing

Individual English Language Support is available this semester for any student in Taubman College for whom English is not their first language. To sign up for an individual appointment, email kbecky@umich.edu. All clinic appointments will be held via Zoom. Please note that this is not a paper-editing service - you will work with an ELI faculty member on the writing assignments or presentations you are doing for your classes this semester. Do not wait until the day an assignment is due to make an appointment!

The resources of the Sweetland Center for Writing are available for both undergraduate and graduate students. They offer classes, one-on-one assistance in a variety of modalities, and resource guides.

Sweetland Writing Center: <http://lsa.umich.edu/sweetland>

Link to resource guides (designed for undergraduates, but even grad students might find them useful):

<http://www.lsa.umich.edu/sweetland/undergraduate/writingguides>

Statement on Student Physical Health and Well-being

The health and well-being of faculty, staff, and students is the college's primary focus this academic year. We expect everyone to do their part to keep our community safe. The guidelines listed below are subject to change as public health recommendations evolve. Students will find additional information on the university's Campus Maize and Blueprint website. Reminders of and changes to these policies and practices will be communicated through our This Week at Taubman College weekly emails and monthly Taubman Together emails.

- Access to the building has been by MCard only. We will be starting open hours soon, but please have your MCard with you at all times. The proposed schedule is:
Monday - Friday: 7:30am-7:30pm (Building unlocked)
Saturday - Sunday: 6:00am-12:00am (MCard Only)
- We ask that you complete the ResponsiBLUE attestation daily and do not come to the building if you have any of the symptoms or are not feeling well.
- Individuals who are fully vaccinated and self-report their status to the university are generally exempt from the indoor masking requirements; however, such individuals must still wear a mask in classrooms, on U- M transportation, or in healthcare areas in patient settings
- Some staff will be working a hybrid schedule with some in person and some remote work to but are still available to assist you. In their absence, the Media Center will act as a central hub and resource for the college community, providing support by answering questions and helping to connect you to appropriate personnel who are working offsite.

Statement on Student Mental Health and Wellbeing

Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, mental health, alcohol or other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help is a courageous thing to do for yourself and those who care about you. If the source of your stressors is academic, please contact me so that we can find solutions together. For personal concerns, U-M offers many resources, some of which are listed at Resources for Student Well-being on the Well-being for U-M Students website. You can also search for additional resources on that website.

Statement on Diversity, Equity, and Inclusion

Taubman College affirms the principles of diversity, equity, and inclusion as we organize resources and priorities that align with our values. We seek to have a diverse group of persons at all levels of the college - students, faculty, staff and administrators - including persons of different race and ethnicity, national origin, gender and gender expression, socioeconomic status, sexual orientation, religious commitment, age, and disability status. We strive to create a community of mutual respect and trust, a community in which all members and their respective backgrounds, identities, and views are represented without any threat of bias, harassment, intimidation, or discrimination.