

**Western Kentucky University**  
**School of Engineering and Applied Sciences**  
**AMS 375: Special Architectural Problems (Indoor Environmental Quality)**  
**Winter 2022**

**Instructor:** O.E. Mansour  
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**Office:** EST 222  
**Office Hours:** By appointment  
**Phone:** 270-745-3367  
**Pre-requisites/Co-requisites:** none  
**Credit:** 3 hours

**[An interdisciplinary elective about indoor environment and healthy building design](#)**

**Catalog Description:** A research project that includes a written report and an innovative design of a non-standard dwelling done on CAD or with conventional drafting tools.

**Upon successful completion of this course, students will be able to:**

1. Identify the indoor environmental quality problems in buildings.
2. Understand the air pollutants and the potential health hazards of poor indoor air quality.
3. Analyze indoor air quality testing results.
4. Propose solutions to improve the indoor environmental quality.

**Topics covered in the course:**

Indoor Environmental Quality, indoor air quality, sick building syndrome, indoor air pollutants, indoor air pollutants source control, building engineering systems involved in indoor environmental quality, design standards and building codes related to indoor air quality, approaches and methods of improving the indoor air quality through design.

**Course Structure and Design:**

This project-based course introduces the indoor environmental quality as an interdisciplinary architectural engineering problem. Students will be introduced to the topic through introductory readings/lectures and research assignments. By the end of the course, students will be asked to report and analyze the indoor air quality of an architectural space, they will also need to propose a solution for improvements.

**Textbook:**

This course is a project-based course guided by the instructor, the main source of instructional materials is the lectures/readings, and the research tasks assigned to the students. However, students can rely on the following reference in case they want to expand their knowledge in this topic.

Hess-Kosa, K. (2018). *Indoor air quality: the latest sampling and analytical methods*. CRC press.

**Grade Allocation:**

4 Assignments	(40%)
4 weekly discussions	(30%)
Project report	(30%)

**Grades Breakdown:**

Outstanding, A – 90-100%  
Commendable, B – 89-80%  
Competent, C – 79-70%  
Unacceptable, F – 0-69%

**Title IX Misconduct/Assault Statement:**

*Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and*

*Discrimination and Harassment Policy (#0.2040) at [https://wku.edu/policies/hr\\_policies/2040\\_discrimination\\_harassment\\_policy.pdf](https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf).*

*Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.*

*Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.*

**Ogden Student Course Attendance Statement:**

The faculty and staff of Ogden College of Science and Engineering are committed to providing you with learning experiences and opportunities. You must assume ownership of your education and be an active participant in the classroom and laboratory to take advantage of these opportunities. **Active participation requires you to attend.** Scientific studies have shown that attendance during scheduled classroom and laboratory meetings is directly correlated to your performance on assignments and exams and the potential to earn higher grades. Additionally, if you do not regularly attend class, you are missing important information about course topics, due dates, and assignment details that are crucial to your success in the course. Therefore, as a student enrolled in an Ogden course, you are expected to attend every class meeting and to inform your instructor regarding the reasons for any absences as soon as practical. **Your instructor may incorporate class attendance/participation as part of the grading criteria.**

**ADA Accommodation Statement:**

*In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at [sarc.connect@wku.edu](mailto:sarc.connect@wku.edu) . Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.*