هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

# Course Specification

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|---|
| Course Title: Environmental Interior Design (بيئة التصميم الداخلي) |
| Course Code: IND 855 |
| Program: Interior Design Program |
| Department: Architecture Department |
| College: College of Engineering and Information Technology |
| Institution: Onaizah Private Colleges |
| Version: Third Version |
| Last Revision Date: 2025-05-20 |

| Previous Course Specification |
|---|
| https://drive.google.com/file/d/18_n8fK5JAAtzaFMEYhvHE0cdySgD5f57/view |

# Table of Contents:

# A. General information about the course:

| Course Identification | |
|---|---|
| 1. Credit hours: | 2 Credit Hours [Theoretical] |
| 2. Course type<br>a. University ☐ College ☐ Department ☒ Track ☐ Others ☐<br>b. Required ☒ Elective ☐ | |
| 3. Level/year at which this course is offered: | Eighth Level / Fourth Year |
| 4. Course general Description<br>This course explores the relationship between interior design and the natural and built environment, with a focus on creating sustainable, healthy, and responsive interior spaces. Students are introduced to key principles of environmental interior design, including sustainable material selection, indoor air quality, energy-efficient lighting, thermal comfort, and acoustic performance. The course emphasizes environmentally responsible design strategies that reduce ecological impact and enhance user well-being. Through lectures, case studies, and project-based learning, students will analyze environmental performance in interior settings and apply sustainable practices to both residential and commercial design projects in alignment with recognized global standards and green building certifications. | |
| 5. Pre-requirements for this course (if any):<br>None | |
| 6. Co- requirements for this course (if any):<br>None | |
| 7. Course Main Objective(s)<br>The objective of this course is to equip students with the knowledge and skills necessary to design interior spaces that promote environmental sustainability, energy efficiency, and human well-being. Students will explore environmentally responsible design strategies, assess the environmental impact of materials and build systems, and apply sustainable design solutions to improve indoor environmental quality. The course emphasizes critical thinking, ethical responsibility, and practical application in addressing environmental challenges through interior design. | |

## 1. Teaching mode

| No. | Mode of Instruction | Contact Hours | Percentage |
|---|---|---|---|
| 1 | Traditional classroom | 30 | 100% |
| 2 | E-learning | | |
| 3 | Hybrid<br>• Traditional classroom<br>• E-learning | | |
| 4 | Distance learning | | |

## 2. Contact Hours (based on the academic semester)

| No. | Activity | Contact Hours |
|---|---|---|

| | | |
|---|---|---|
| 1 | Lectures | 30 |
| 2 | Laboratory/Studio | |
| 3 | Field | |
| 4 | Tutorial | |
| 5 | Others (specify) | |
| **Total** | | **30** |

## B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|---|---|---|---|---|
| **1.0** | **Knowledge and understanding** | | | |
| IND 855.C LO.K.1 | Explain the fundamental principles of environmental interior design, including sustainable materials, energy efficiency, indoor environmental quality, and their impact on user well-being | K.4(التصميم برنامج الداخلى Interior Design) | Primary: Lecture<br>Additional: Research (Individual or Group) | Formative: Quiz (Online or F2F)<br>Summative: Written Exam (MCQ or Essay / F2F or Online) |
| **2.0** | **Skills** | | | |
| IND 855.C LO.S.1 | Apply sustainable and eco-friendly materials and finishes considering reuse, recycling, and environmental performance in interior design projects | S.1(التصميم برنامج الداخلى Interior Design) | Primary: Interactive Lecture \ Demonstration<br>Additional: Discussion (or similar active learning strategies) | Formative: Presentation (Individual or Group) (Rubric)<br>Summative: Case Study (Individual or Group) (Rubric) |
| IND 855.C LO.S.2 | Analyze and implement sustainable and ecological design strategies to address environmental | S.2(التصميم برنامج الداخلى Interior Design) | Primary: Project or Research (Individual or Group)<br>Additional: Discussion (or similar active | Formative: Presentation (Individual or Group) (Rubric)<br>Summative: Research |

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|---|---|---|---|---|
| | challenges and improve interior environmental quality | | learning strategies) | Assessment (Rubric) |
| IND 855.C LO.S.3 | Develop comprehensive sustainable interior design proposals supported by research, case studies, and environmental performance assessment | S.5(التصميم برنامج الداخلى Interior Design) | Primary: Interactive Lecture \ Demonstration<br>Additional: Project or Research (Individual or Group) | Formative: Case Study (Individual or Group) (Rubric)<br>Summative: Research Assessment (Rubric) |
| **3.0** | **Values, Autonomy, and Responsibility** | | | |
| IND 855.C LO.V.1 | Demonstrate ethical responsibility, safety awareness, and professional conduct while addressing sustainability and environmental considerations in interior design projects | V.2(التصميم برنامج الداخلى Interior Design) | Primary: Discussion (or similar active learning strategies)<br>Additional: Independent Study or Research | Formative: Case Study (Individual or Group)<br>Summative: Oral Exam or Interview (Rubric) |
| IND 855.C LO.V.2 | Exhibit commitment to sustainable design ethics and responsible decision-making that promote environmental | V.3(التصميم برنامج الداخلى Interior Design) | Primary: Group Work (competitive or cooperative / Online or F2F)<br>Additional: Fieldwork | Formative: Case Study (Individual or Group)<br>Summative: Student Portfolio |

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|---|---|---|---|---|
| | stewardship in professional practice | | | |

## C. Course Content

| No. | List of Topics | Contact Hours |
|---|---|---|
| 1 | Course Description, Schedule and Introduction:<br>- Definition & importance in interior spaces.<br>- Relationship between built environments and ecosystems. | 2 |
| 2 | Environmental Interior Design Definitions and Historical Background.<br><br>Principles of Sustainable Interior Design:<br>- The 3 Pillars: Environmental, Social, Economic Sustainability.<br>- Green materials, energy use, waste reduction.<br><br>Discussion: Analyzing Sustainable vs. Non-Sustainable Interiors. | 2 |
| 3 | Climate & Environmental Factors in Interiors:<br>- Impact of climate on building materials & design choices.<br>- Indoor air quality, natural ventilation, daylighting.<br>- Environmental Pollution and Negative Impacts Controlling and Decreasing. | 2 |
| 4 | Environmental Interior Design Elements and Features.<br><br>1. Sustainable Materials & Finishes:<br>Using materials that are renewable, recycled, or locally sourced reduces the carbon footprint of interiors.<br>- Eco-Friendly Flooring:<br>▪ Bamboo, cork, reclaimed wood, terrazzo, linoleum.<br>▪ Low-VOC (Volatile Organic Compound) adhesives & finishes.<br>- Sustainable Wall Finishes:<br>▪ Recycled wood panels, natural stone, clay-based paints.<br>▪ Biodegradable wallpapers & non-toxic coatings.<br>- Furniture & Textiles:<br>▪ FSC-certified (Forest Stewardship Council) wood<br>▪ Organic cotton, hemp, wool, and linen fabrics<br>▪ Recycled metal & glass elements. | 2 |
| 5 | 2. Energy Efficiency & Lighting:<br>Natural Daylighting Usages and Controlling Indoor Artificial Lighting Usages. Efficient energy use reduces carbon emissions and operational costs.<br>- Natural Lighting Strategies:<br>▪ Large windows, skylights, solar tubes. | 2 |

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| | ▪ Light shelves & reflective surfaces for daylight diffusion.<br>- Energy-Efficient Artificial Lighting:<br>▪ LED & CFL bulbs (lower energy consumption, longer lifespan).<br>▪ Motion sensors & dimmable lighting systems.<br>- Smart Lighting Control:<br>▪ IoT-connected lighting, daylight sensors, and automated blinds.<br>▪ Smart switches for optimized energy consumption. | |
| 6 | 3. Indoor Air Quality & Healthy Materials:<br>Natural Ventilation Usages and Controlling Indoor HVAC Systems Usages.<br>- Low-VOC & Non-Toxic Materials:<br>▪ Avoiding paints, adhesives, and furniture with harmful emissions.<br>- Air-Purifying Plants & Ventilation Systems:<br>▪ Smart HVAC systems with HEPA filters & natural cross-ventilation.<br>- Eco-Friendly Carpets & Rugs:<br>▪ Wool, jute, or recycled PET fiber rugs (avoiding synthetic ones with harmful emissions). | 2 |
| 7 | Biophilic Design & Indoor Greenery.<br>Bringing nature indoors improves air quality, mental well-being, and productivity.<br>- Green Walls & Vertical Gardens:<br>▪ Moss walls, hydroponic systems, and air-purifying plants.<br>- Indoor Plants & Planters.<br>- Water Elements & Natural Textures.<br>▪ Indoor waterfalls, natural stone features, bamboo partitions.<br>- Daylight & Views to Nature.<br>▪ Maximizing window placements & using glass partitions for better outdoor connectivity. | 2 |
| 8 | Mid Term Exam. | 2 |
| 9 | Waste Reduction & Circular Design:<br>Reducing, reusing, and recycling materials minimizes waste production.<br>- Reclaimed & Upcycled Furniture:<br>▪ Reusing old furniture with new finishes and treatments. | 2 |

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| | - Modular & Flexible Design:<br>▪ Furniture and partitions that can be reconfigured for different uses.<br>- Zero-Waste Design Principles:<br>▪ Designing spaces for longevity with minimal replacements. | |
| 10 | Water Conservation & Smart Plumbing:<br>Efficient water use is essential for sustainability in interior design.<br>- Water-Efficient Fixtures:<br>▪ Low-flow faucets, dual-flush toilets, and sensor-based taps.<br>- Greywater Recycling & Rainwater Harvesting:<br>▪ Reusing water for irrigation and flushing systems.<br>- Permeable & Water-Absorbing Surfaces:<br>▪ Using materials that reduce water runoff and support rain absorption. | 2 |
| 11 | Resilient & Climate-Responsive Design:<br>Interiors must be designed to withstand climate challenges like heat, floods, and earthquakes.<br>- Thermal Insulation & Passive Cooling Strategies:<br>▪ Insulated walls, double-glazed windows, and cross-ventilation.<br>- Flood & Fire-Resistant Materials:<br>▪ Water-resistant flooring, flame-retardant finishes.<br>- Earthquake-Resistant Interior Features:<br>▪ Flexible joinery, lightweight furniture, anchored shelving. | 2 |
| 12 | Green Building Certifications & Policies:<br>Ensuring compliance with international sustainability standards.<br>- LEED (Leadership in Energy and Environmental Design):<br>▪ Sustainable site planning, energy efficiency, indoor environmental quality.<br>- WELL Building Standard:<br>▪ Focused on occupant health and well-being.<br>- BREEAM (Building Research Establishment Environmental Assessment Method):<br>▪ Evaluates energy use, materials, pollution control, and water management.<br>- Passive House & Net-Zero Energy Interiors:<br>▪ Ultra-low energy interiors using high insulation and airtight design. | 2 |

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| 13 | Environmental Interior Design Buildings Project. | 2 |
| 14 | Research Submission and Presentation. | 2 |
| 15 | Final Exam. | 2 |
| **Total** | | **30** |

## D. Students Assessment Activities

| No. | Assessment Activities* | Assessment Timing (in Week No.) | Percentage of Total Assessment Score |
|---|---|---|---|
| 1 | Case Study (Individual or Group) (Rubric) | 7th | 5% |
| 2 | Written Exam (Midterm Exam) (MCQ or Essay / F2F or Online) | 8th - 10th | 25% |
| 3 | Written Exam (Final Exam) (MCQ or Essay / F2F or Online) | 16th | 45% |
| 4 | Research Assessment (Rubric) + Case Study (Individual or Group) | 12th | 5% |
| 5 | Quiz (Online or F2F) | 3rd | 5% |
| 6 | Student Portfolio | 15th | 5% |
| 7 | Oral Exam or Interview (Rubric) | | 5% |
| 8 | Presentation (Individual or Group) (Rubric). | | 5% |
| | | | **100%** |

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

# E. Learning Resources and Facilities

## 1. References and Learning Resources

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|---|---|
| **Essential References** | - Experimental Eco-Design, Cara Brower, 2005.<br>- The Hok Guidebook to Sustainable Design, Sandra Mendler, 2006.<br>- Ecological Architecture: a Critical history, James Steele, 2005.<br>- The Green Imperative: ecology and ethics in design and architecture, Victor Papanek, 1995.<br>- Material Architecture: materials for ecological construction, John Fernandez, 2006.<br>- Environmental Design: An Introduction to Architects and Engineers, Ed: Randall Thomas, 1999.<br>- The Environmental Dictionary, David Kemp, Routledge, 1998.<br>- Environmental Encyclopedia, William Cunningham, 1998.<br>- Green Buildings A to Z : understanding the language of green buildings, 2007.<br>- Ecological Design Handbook. Sustainable strategies for architecture, landscape, interior design, and planning, Fred Sitt, 1999. |
| **Supportive References** | None. |
| **Electronic Materials** | - www.aiasdrg.org<br>- www.nps.gov |
| **Other Learning Materials** | None. |

## 2. Required Facilities and Equipment

| Items | Resources |
|---|---|
| **Facilities**<br>(Classrooms, Laboratories, Exhibition Rooms, Simulation Rooms, etc.) | Lecture Hall, Studio Hall. |
| **Technology Equipment**<br>(Projector, Smart Board, Software) | Data Show, Smart Board, Applications Software. |
| **Other Equipment**<br>(Depending on the nature of the specialty) | None. |

## F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|---|---|
| Effectiveness of teaching | Peer Reviewer | Direct (peer classroom observation according to the approved Rubric) |
| Effectiveness of students' assessment | Faculty/Instructor | Direct (analysis of CLOs assessment results and grade distributions) |
| Quality of learning resources | Students | Indirect (course evaluation survey) |
| The extent to which CLOs have been achieved | Faculty/Instructor | Direct (CLOs assessment and analysis of results according to CLOs targets) |
| | Students | Indirect (Students through course evaluation survey) |
| Commitment to learning and teaching strategies and assessment methods included in the program and course specifications | Peer Reviewer | Direct (Peer- classroom observation according to the approved Rubric in OC-QMS) |
| | Department Chair through Students Focus Groups | Indirect (Chair – survey questions to a focus group of students according to OC QMS) |
| Action Plan Continuity (Closing the Loop) | QAC (Quality Assurance Committee) | Direct (periodic review of course reports and submitting comments to course instructor/coordinator) |
| Instructor's Support to Students | Students | Indirect (course evaluation survey) |

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

## G. Specification Approval Data

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| **COUNCIL /COMMITTEE** | Department of Architecture Council |
| **REFERENCE NO.** | 11 |
| **DATE** | 2023-05-09 |

Learning outcomes of this course, as well as CLOs/Teaching Strategies/Assessment Methods matrix have been evaluated and reviewed by multiple OC parties according to OC-QMS. You can access results of these final reviews by scanning the QR code on the right, which contains a link to the reviews on OC-E-QMS.

Click Here