**University of Management and Technology**

**School of Architecture & Planning**

**Department of Architecture**

**Course code:** AR-636 **Course title:** Architectural Technology - I

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| Program | M-Arch |
| Credit Hours | 3+0 |
| Duration | One semester(16 weeks) |
| Prerequisites | None |
| Resource Person | **As per timetable** |
| Counseling Timing | **Kindly see office window** |
| Contact | - |

**Chairman/Director signature………………………………….**

**Dean’s signature…………………………… Date………………………………………….**

**Learning Methodology:**

* Lectures as provided in the schedule of the semester activities.
* Study of recommended books uploaded on the Moodle and class given notes.
* Discussion on Term Project.

**Grade Evaluation Criteria**

Following is the criteria for the distribution of marks to evaluate final grade in a semester.

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| --- | --- |
| **Marks Evaluation** | **Marks in percentage** |
| Quizzes | 5% |
| Assignments | 10% |
| Mid Term | 25% |
| Term Project | 10% |
| Final exam | 50% |
| Total | 100% |

**Reference Books:**

**Introduction to Architectural Technology** By: Peter Silver and William McLean

**Architectural Technology: Research and Practice** By: Stephen Emmitt

**Theory and design in the first machine age** By: Reyner Banham

**Rethinking Technology: A Reader in Architecture** By: Ed. William W. Braham, Jonathan Hale

**Architecture, Technology and Process** By Chris Abel

**Software Architecture in Practice** By Len Bass, Paul Clements, and Rick Kazman

**BIM Handbook: A Guide to Building Information Modeling for Owners, Designers, Engineers, Contractors, and Facility Managers, 3rd Edition** By Rafael Sacks, Chuck Eastman, Ghang Lee, Paul Teicholz

**Calendar of Course Contents to be covered during Semester**

**Course code:** AR-636  **Course title:** Architectural Technology-I

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| **Week** | **Course Contents** | **Reference Chapter(s)** |
| 1 | Introduction to the concept of “Information Society”.  **Introducing Assignment 1:** TBD | Research Paper:  Artificial Intelligence and Contemporary Japanese Architecture – Any Relationship?  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2019.1577212> |
| 2 | Figuring out the relationship between Information Society and Technological Innovations  **Submission of Assignment 1:** TBD | Research Paper:  Artificial Intelligence and Contemporary Japanese Architecture – Any Relationship?  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2019.1577212> |
| 3 | Understanding the relationship between Information Society, Technological Innovations and Architecture  **Quiz 1:** TBD | Research Paper:  Artificial Intelligence and Contemporary Japanese Architecture – Any Relationship?  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2019.1577212> |
| 4 | Case Studying the works of following architects as an example of Architecture in the Information Society:  1929: Le Corbusier  1929: Buckminster Fuller  1941: Siegfried Giedion | Rethinking Technology: A Reader in Architecture  By: Ed. William W. Braham, Jonathan Hale |
| 5 | Case Studying the works of following architects/technologists as an example of Technologically Advanced Architecture:  1950: Ludwig Mies van der Rohe  1954/1962: Team 10  1964: Marshall McLuhan | Rethinking Technology: A Reader in Architecture  By: Ed. William W. Braham, Jonathan Hale |
| 6 | Case Studying the works of following architects:  1970: Peter Cook  1972: Superstudio  1977: Kisho Kurokawa  **Introducing Assignment 2:** TBD | Rethinking Technology: A Reader in Architecture  By: Ed. William W. Braham, Jonathan Hale |
| 7 | Understanding Pattern Comparison of Industrial Society and the Information Society by Father of Information Society in Japan – Yoneji Masuda  **Submission of Assignment 2:** TBD | Research Paper:  Artificial Intelligence and Contemporary Japanese Architecture – Any Relationship?  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2019.1577212> |
| 8 | Discussing Technological Innovations encompassing Artificial Intelligence  **Quiz 2:** TBD | Research Paper:  Artificial Intelligence and Contemporary Japanese Architecture – Any Relationship?  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2019.1577212> |
| 9 | **MID TERM EXAMINATION** | |
| 10 | **Guest Lecture**:  Discussion on Architectural Technologies and Current Trends in Pakistan, Details TBD | |
| 11 | Discussion on the Probability of Automation of Architectural Profession | Research Paper:  Artificial Intelligence and Contemporary Japanese Architecture – Any Relationship?  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2019.1577212> |
| 12 | Case Studying the works of following architect/technology theoretician Toyo Ito: Sendai Mediatheque and Gifu Media Cosmos  **Introducing Term-Paper** | Rethinking Technology: A Reader in Architecture  By: Ed. William W. Braham, Jonathan Hale |
| 13 | Discussion on the relevance of Media Architectures and Artificial Intelligence | Research Paper:  Senses, experiences, emotions, memories: artificial intelligence as a design instead of for a design in contemporary Japan  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2020.1764327> |
| 14 | Exploring the attributes of Theory of Human Motivation that we seek in robotics and it’s relationship to Architecture  **Submission of Term-Paper** | Research Paper:  Senses, experiences, emotions, memories: artificial intelligence as a design instead of for a design in contemporary Japan  Author: Ar. Dr. Danyal Ahmed  DOI:  <https://doi.org/10.1080/17508975.2020.1764327> |
| 15 | **FINAL TERM EXAMINATION** | |