TMU Curriculum Insights

FEAS-ArchitecturalScience Bachelors | version: 2017

Learning Outcomes

LO	Description
LO 1a	Design -demonstrate a design process grounded in theory and practice, involving identification and application of design principles and methods, and the critical analysis of architectural precedents.
LO 1b	Design Skills - apply appropriate design theories, methods, and precedents to the conception, configuration and design of buildings, spaces, building elements, and tectonic components
LO 1c	Design Tools - Select and apply a broad range of design tools available to the architectural discipline, including a scope of techniques such as two- and three-dimensional representation, computational design, modeling, simulation, and fabrication.
LO 1d	Design Documentation - Produce and present the outcomes (deliverables?) of a design project using the broad range of architectural media and assemble documentation for the purposes of construction, through drawings and specifications.
LO 1e D	Design Processes - Identify, assess, and make appropriate use of emerging tools in relation to design, analysis, and documentation.
LO 2	Critical Thinking: Research, Analysis and Synthesis - determine and apply appropriate research strategies; record, assess and comparatively evaluate information; synthesize research findings and test potential alternative outcomes against relevant criteria and standards; reach well-supported conclusions related to a specific project or assignment.
LO 3a	Graphic Communication - effectively use a range of visual media to appropriately communicate subject matter related to the architectural discipline, both within the profession and with the general public.
LO 3b	Written Communication - write effectively using a range of written media to appropriately communicate subject matter related to the architectural discipline, both within the profession and with the general public
LO 3c	Oral/Presentation Communication - communicate orally appropriately and effectively on subject matter related to the architectural discipline, both within the profession and with the general public.
LO 3d	Communication Innovation - Identify, assess, and make appropriate use of emerging technologies to communicate architectural ideas (or perhaps ideas, plans, or concepts)
LO 4	Building Materials - analyze, evaluate and integrate building materials into an architectural design project, relative to/addressing issues of fundamental performance, aesthetics, durability, energy, resources, and environmental impact.

LO 5	Building Components and Assemblies - analyze, evaluate and design building envelope systems and associated assemblies relative to/addressing issues of fundamental performance, aesthetics, durability, energy, material resources and environmental impact.
LO 6a	Structural Systems - analyze, evaluate, select and integrate appropriate structural systems into an architectural design project.
LO 6b	Environmental Systems - analyze, evaluate, select and integrate appropriate passive and active environmental modification and building service systems.
LO 7a	Regulatory Considerations - interpret and apply building codes, regulations and standards, for a given building and site including universal design standards and the principles that inform the design and selection of life-safety systems.
LO 7b	Design Innovation - identify, assess, and make appropriate use of emerging building technologies.
LO 8	Architectural History - identify, discuss, critically analyze, interpret and write about the history of architecture and urban design in relation to cultural, political, ecological, morphological and technological factors that have influenced their development.
LO 9	Architectural Theory - recognize, investigate and synthesize conceptual and theoretical frameworks in the context of architecture and urban design.
LO 10a	Human Cultures and Ecologies - analyze and interpret the diverse needs, values, behavioural norms and social/spatial patterns that characterize different global cultures and individuals, and the broader ecologies that inform the design of buildings; recognize and discuss the implications of this diversity on the discipline of architecture.
LO 10b	Methodological Innovation - identify, assess, and make appropriate use of emerging tools for investigating architectural history and culture.
LO 11	Roles and Responsibilities in the AEC industry - describe the organization of the AEC industry in Canada; the regulatory frameworks within which it operates; identify the participants of the AEC industry and articulate their roles and responsibilities.
LO 12	Project Management - apply essential project management concepts and perform relevant calculations and analyses pertaining to cost, schedule, risk, scope, and procurement.
LO 13	Management Innovation - identify, assess, and make appropriate use of emerging processes and tools for resource management.
LO 14	Demonstration of Enhanced Proficiency in Building Science
LO 15	Demonstration of Enhanced Proficiency in Project Management
LO 16	LO 16 Demonstrate Enhanced Proficiency in Architecture