MASTER OF SCIENCE IN ARCHITECTURE / DESIGN TECHNOLOGY

Curriculum

A minimum of 45 quarter credits will be required for the completion of the program. The program will require 36 credits of coursework and 9 credits of thesis. The program requirements will be structured to fit the individual areas of specialization; however, certain common course requirements are required of all M.S. Design Technology stream students. The core curriculum of 24 credits is comprised of a series of three classes that combine discipline-specific knowledge building with a focus on applied research skills and the thesis proposal and master's thesis. The final 21 credits of course work involve a series of design technology selectives that are determined in consultation with a faculty adviser.

Course Schedule

24 credits core curriculum courses
21 credits design technology selectives

Year 1		
Autumn Quarter	Winter Quarter	Spring Quarter
Arch 592 Research Methods (3)	**Arch 586 Computation and Design Technology Seminar (3)**	**Arch 597 Research Practicum (5)**
Selective (3)	Selective (3)	Selective (3)
Selective (3)	Selective (3)	Selective (3)
Selective (3)	Selective (3)	
12 credits	*12 credits*	11 credits

Year 2		
Autumn Quarter	Winter Quarter	Spring Quarter
Arch 599 Thesis Prep (4)	**700 Master's Thesis (9)**	700 Master's Thesis (if required)
Selective (3)		
7 credits	*9 credits*	

Note 1: The Master of Science in Architecture curriculum includes a total of 45 course credits. Generally, the requirements for this degree, including thesis, can be fulfilled in 5 or 6 quarters.

Note 2: 21 credits of selective courses can be selected from design technology selectives or any other relevant University of Washington courses numbered 400 and above, as approved by a program advisor.

DESIGN TECHNOLOGY SELECTIVES

ARCH 478 – CAD and Working Drawings
ARCH 481 – 3D Modeling & Rendering
ARCH 487 – Fundamentals of BIM
ARCH 527 – Intro to Digital Design & Fabrication
ARCH 528 – Digital Design for Fabrication
ARCH 529 – Advanced Digital Projects
ARCH 530 – Integrated Systems
ARCH 523 – Design Technology IV
ARCH 524 – Design Technology V
ARCH 525 – Life Cycle Assessment and Arch.
ARCH 526 - High Performance Buildings
ARCH 534 – Green Technology
ARCH 535 – Daylighting Design Seminar
ARCH 536 – Designing Living Systems
ARCH 537 – Traditional Building Methods
ARCH 582 – Computation Lighting Design
ARCH 598 – Performative Driven Design
ARCH 598 – Computational Design
ARCH 598 – Sustainable Design Case Studies
ARCH 598 – Onouye Studio Seminar
ARCH 598 – Designing for Changing Climates
ARCH 598 – Biophilic Design

APPROVED SELECTIVES OFFERED BY OTHER UW DEPARTMENTS

Registration for courses outside our department prioritize degree seeking students in these programs. Courses which receive a lot of interest from non-majors will post instructions for non-major registration in the UW Time Schedule course notes. If no instructions are provided, contact the department for non-major registration procedures. Here is a directory of graduate programs and contact information: https://www.grad.washington.edu/admission/find-a-program/

Course descriptions below as posted on UW course catalog: https://www.washington.edu/students/crscat/inde.html

M E 515 Life Cycle Assessment (3) *Cooper*
Presents and discusses the computation structure and data sources for environmental Life Cycle Assessment. Uses Life Cycle Assessment to analyze materials, products, and services. The analysis either identifies opportunities for improvements or selects a superior alternative on the basis of pollution prevention and resource conservation. Offered: W.

Some statistics work would be valuable. Available applied statistics courses include:

Q SCI 482 Statistical Inference in Applied Research I: Hypothesis Testing and Estimation for Ecologists and Resource Managers (5) NW *I. Ganguly*
Analysis of variance and covariance; chi square tests; nonparametric procedures multiple and curvilinear regression; experimental design and power of tests. Application to biological problems. Use of computer programs in standard statistical problems. Prerequisite: either STAT 311 or Q SCI 381. Offered: AW.

CESI 524 Statistical Methods for Construction (1)
Overview of basic statistical measures used in construction and materials decision making including data distributions, hypothesis testing, regression analysis, sampling and quality control/assurance. Credit/non-credit only. Offered: A.

ENVIR 502 Business Strategy and the Natural Environment (4)
Applies economic and business principles (marketing, accounting, operations) to understand interactions between business and the natural environment and how environmental issues influence business strategy. Theory and case studies explore strategies that both respond to and seek competitive advantage from firms' interactions with the environment.

ENVIR 500 Graduate Seminar in Environmental Studies (15, max. 15)
Exploration of interdisciplinary themes in environmental science communication. Topics vary.

CEWA 560 Risk Assessment for Environmental Health Hazards (4)
Examines context, methodologies, data, uncertainties, and institutional arrangements for risk assessment. Qualitative and quantitative approaches to identification, characterization, and control of environmental hazards to health emphasized through didactic and case studies. Offered: jointly with ENV H 577/PUBPOL 589; A.

USER INTERFACE DESIGN AND ENGINEERING COURSES

CSE 440 Introduction to HCI: User Interface Design, Prototyping, and Evaluation (5)

Human-Computer Interaction (HCI) theory and techniques. Methods for designing, prototyping, and evaluating user interfaces to computing applications. Human capabilities, interface technology, interface design methods, and interface evaluation tools and techniques. Prerequisite: CSE 332.DXARTS 470 Sensing &Control Syst for Dig Arts (5)

HCDE 418 Advanced Projects in Human Centered Design and Engineering (5, max. 10)

Explores advanced topics in human centered design. Students engage with and discuss an advanced topic and then apply it by researching, designing, and implementing a solution to a design challenge. Team-based investigations culminate in a project response to the challenge. Prerequisite: either HCDE 318, INFO 360, or CSE 440; recommended: Students should have completed at least one project-based human centered design or human-computer interaction course (e.g., HCDE 318).

HCDE 455 User Interface Design (4)

Design oriented to cover fundamentals of user interface design; models on human computer interaction, software psychology, input devices, usability, cognitive and perceptual aspects of human-computer interaction, advanced interface, and research methodologies are discussed. Offered: jointly with IND E 455; A.

IND E 455 User Interface Design (4)

Design oriented to cover fundamentals of user interface design; models on human computer interaction, software psychology, input devices, usability, cognitive and perceptual aspects of human-computer interaction, advanced interface, and research methodologies are discussed. Offered: jointly with HCDE 455; A

IND E 549 Research Methods in Human Factors (3)

Includes fundamental guidelines for survey design, controlled experiments, quasi-experimental, and observational studies. Focus on safety, productivity, functionality, and usability. Review of journal articles on research methods and design issues, given functional, psychological, physiological, and environmental constraints. Recommended: introductory class in human factors. Offered: jointly with ENV H 549; Sp.