

# MASTER OF SCIENCE IN ARCHITECTURE - ADVANCED PRODUCTION

## Program of Study

The Master of Science in Architecture with a concentration in Advanced Production focuses on integrating advanced design, computation and manufacturing technologies into workflows for the production of experimental spatial systems, material assemblies and buildings. Coursework for this concentration incorporates emerging design technologies including robotics and automation, Augmented Reality (AR) / Virtual Reality (VR), Small Unmanned Aerial Systems (SuAS; aka "Drones"), additive manufacturing (3d-printing), subtractive computer numerical control (CNC) manufacturing processes, parametric modelling and production logistics. Graduates from this program will be prepared to leverage expertise in advanced digital design and production as consultants to or embedded within progressive architectural firms, digital manufacturing operations and advanced technology start-ups. Additionally, this concentration positions graduates to further pursue research through academic faculty positions or as potential PhD candidates.

Code	Title	Credit Hours
<b>Required Courses:</b>		
ARCH 8803	Advanced Productions	3
ARCH 6511	Robotic Fabrication	3
ARCH 6506	Construction Materials, Systems, and Fabrications	3
ARCH 6507	Parametric Modeling and Design	3
ARCH 6502	Scripting for Architecture and Design	3
ARCH 6512	Research Colloquium	3
<b>Capstone:</b>		<b>6</b>
ARCH 6049 Design + Research Studio 1 or ARCH 6050 Design + Research Studio 2		
ARCH 8833	Special Topics <sup>1</sup>	
ARCH 7000 Master's Thesis		
<b>Electives:</b>		<b>6</b>
ARCH 6505 Geometric Constructs in Digital Space		
ARCH 6426 3D Modeling in Architecture		
ARCH 6427 Advanced Modeling and Animation in Architecture		
ARCH 6474 Architecture Modeling & Media 3		
ARCH 6501 Analog and Digital Design Computation		
ARCH 8833	Building Systems and Data	
<b>Total Credit Hours</b>		<b>30</b>

<sup>1</sup> Independent Study focused on Advanced Productions guided by Faculty