

Part Two (II): Education Outcomes and Curriculum

Section 1 – Student Performance: Educational Realms & Student Performance Criteria

II.1.1 Student Performance Criteria

Curriculum Overview

The School of Architecture has developed an eleven-semester curriculum—8 semesters for the Bachelor of Arts in Environmental Design undergraduate degree and 3 semesters for the Master of Architecture graduate program—focusing on conceptualization, use & context, building technologies, professional responsibilities and outreach/engagement while developing a critical position with regard to the environment and architecture:

- The first year of the Environmental Design Program is intended to encourage the greatest possible diversity of students to explore the opportunities and expectations of an environmental design education while allowing students to undertake their university core curriculum studies. Particular emphasis is placed on conceptualization and a heightened and diverse perception of their environment as well as the methodologies for translating and expressing design intent in the first year of the curriculum.
- The second year requires that students continue their university core courses to ensure a broad perspective from which to engage their environmental design education. Within the School's second year curriculum students acquire a broad historic understanding of architecture, the ability to design structural systems and utilize architectural graphics to communicate design concepts. The design studio introduces fundamental strategies of precedent analysis, the organization of human activities and sustainability while applying the knowledge acquired in structures and graphics courses. Particular emphasis is placed on use & context during the second year of the curriculum.
- Throughout the third year of our undergraduate program, students develop the ability to design environmental control and integrated building construction systems as well as the ability to utilize advanced graphic communication strategies. The design studios are intended to develop the student's understanding of how to integrate environmental control systems and building construction systems. In the third year, particular emphasis is placed on building tectonics within the curriculum.
- The fourth and final year of the Environmental Design program consists of one required studio course and a professional practice course during one semester and a selection from one of the option studios in the other semester. Every student must complete a capstone studio emphasizing professional responsibility in which the student synthesizes program development, site development, structural systems, environmental controls systems, principles of sustainability and graphic communication. The studio option semester allows students to explore an area of design and practice that is unique to their interests—focusing on internship, community design, study abroad or design-build opportunities. The emphasis remains on professional responsibility and outreach/engagement. With the satisfactory completion of the fourth year of study, students receive a Bachelor of Arts in Environmental Design degree.
- Students wishing to acquire the Masters of Architecture Degree must complete three semesters of graduate study. Throughout this graduate study, students choose from a variety of architectural studios, a required architectural research methods course and a broad range of architecture or non-architecture electives. All of the graduate design studios, required courses and electives are intended to emphasize the development of a critical position with regard to the environment and architecture.

The curriculum has been structured in such a way to allow students to complete the majority of their university core courses during their first two years of our program in order to allow for a broader and more holistic exploration of topics both in architecture and in other fields. The middle portion of our curriculum emphasizes the technical knowledge that students require in order to develop a mastery of their discipline which is an important aspect of the university and school missions. During the final year of a student's undergraduate program and throughout their graduate studies, students have a broad array of educational experiences that allow them to engage with broader social, cultural and global issues.

Matrix of NAAB Student Performance Criteria

On the following pages is the Required Course matrix showing the relationship between the NAAB Student Performance Criteria and the required courses offered in the School of Architecture curriculum.

Student Performance Criteria for required courses in the Master of Architecture professional degree program at MSU

Because 85-90% of the students in our M.Arch program complete their pre-professional degree program in the B.A. in Environmental Design program at MSU, we have developed the following Student Performance Criteria Matrix for required courses in **both** the Pre-professional and Professional degree programs at MSU.

Architectural Program Report Montana State University Required Courses Master of Architecture		Architectural Program Report Montana State University Required Courses Master of Architecture	
Ability	Communication Skills	A.1, A.2, A.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Design Thinking Skills	A.1, A.2, A.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Visual Communication Skills	A.4, A.5, A.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Technical Documentation	A.4, A.5, A.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Investigative skills	A.4, A.5, A.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Fundamental Design Skills	A.4, A.5, A.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Use of Precedents	A.4, A.5, A.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Ordering System Skills	A.7, A.8, A.9	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Historical Tradition and Global Culture	A.7, A.8, A.9	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Cultural Diversity	A.7, A.8, A.9	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Applied Research	A.7, A.8, A.9	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Pre-Design	B.1, B.2, B.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Accessibility	B.1, B.2, B.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Sustainability	B.1, B.2, B.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Site Design	B.4, B.5, B.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Life Safety	B.4, B.5, B.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Comprehensive Design	B.4, B.5, B.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Financial Considerations	C.1, C.2, C.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Environmental Systems	C.1, C.2, C.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Structural Systems	C.1, C.2, C.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Building Envelope Systems	C.1, C.2, C.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Building Service Systems	C.1, C.2, C.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Building Materials and Assemblies	C.1, C.2, C.3	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Ability	Collaboration	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Human Behavior	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Client Role in Architecture	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Project Management	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Practice Management	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Leadership	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Legal Responsibilities	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Ethics and Professional Judgment	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Understanding	Community and Social Responsibility	C.4, C.5, C.6	ARCH 551, ARCH 552, ARCH 557, ARCH 558
Architectural Program Report Montana State University Required Courses Master of Architecture			
GRADUATE YEAR COURSES ARCH 551 Advanced Architectural Design ARCH 552 Architectural Research Methods ARCH 557 Architectural Design Studio ARCH 558 Advanced Building Studio			

Architectural Program Report Montana State University Required Courses B.A. Environmental Design + Master of Architecture	Ability	Ability	Ability	Ability	Ability	Ability	Ability	Understanding	Understanding	Understanding	Understanding	Ability	Ability	Ability	Ability	Ability	
	Communication Skills	Design Thinking Skills	Visual Communication Skills	Technical Documentation	Investigative skills	Fundamental Design Skills	Use of Precedents	Ordering System Skills	Historical Tradition and Global Culture	Cultural Diversity	Applied Research	Pre-Design	Accessibility	Sustainability	Site Design	Life Safety	Comprehensive Design
	A.1	A.2	A.3	A.4	A.5	A.6	A.7	A.8	A.9	A.10	A.11	B.1	B.2	B.3	B.4	B.5	B.6
FIRST YEAR COURSES																	
1st Semester																	
ARCH 121A Introduction to Design																	
ARCH 151RA Design Fundamentals I																	
2nd Semester																	
ARCH 152 Design Fundamentals II																	
SECOND YEAR COURSES																	
1st Semester																	
ARCH 241 Building Construction																	
ARCH 243 Arch Structures I																	
ARCH 261 Architectural Graphics I																	
ARCH 322IA World Architecture I																	
2nd Semester																	
ARCH 244 Arch Structures II																	
ARCH 253 Architectural Design I																	
ARCH 262 Architectural Graphics II																	
ARCH 323IA World Architecture II																	
THIRD YEAR COURSES																	
1st Semester																	
ARCH 331 Environmental Controls I																	
ARCH 354 Architectural Design II																	
ARCH 363 Architectural Graphics III																	
2nd Semester																	
ARCH 322 Environmental Controls II																	
ARCH 340 Building Construction II																	
ARCH 355 Architectural Design III																	
FOURTH YEAR COURSES																	
1st Semester																	
ARCH 3B Professional Practice																	
ARCH 456 Architectural Design IV																	
Option Studios																	
Student Performance Criteria expected to have been met in preparatory or pre-professional education (i.e. B.A. in Environment																	
Student Performance Criteria met in our NAAB-accredited Program																	
GRADUATE YEAR COURSES																	
ARCH 551 Advanced Architectural Design																	
ARCH 552 Architectural Research Methods																	
ARCH 557 Architectural Design Studio																	
ARCH 558 Advanced Building Studio																	

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Architectural Program Report

Montana State University Required Courses B.A. Environmental Design + Master of Architecture

Financial Considerations	Environmental Systems	Structural Systems	Building Envelope Systems	Building Service Systems	Building Materials and Assemblies	Collaboration	Human Behavior	Client Role in Architecture	Project Management	Practice management	Leadership	Legal Responsibilities	Ethics and Professional Judgment	Community and Social Responsibility	Understanding
B.7	B.8	B.9	B.10	B.11	B.12	C.1	C.2	C.3	C.4	C.5	C.6	C.7	C.8	C.9	Understanding
FIRST YEAR COURSES															
1st Semester															
															ARCH 121A Introduction to Design
															ARCH 151RA Design Fundamentals I
2nd Semester															
															ARCH 152 Design Fundamentals II
SECOND YEAR COURSES															
1st Semester															
															ARCH 241 Building Construction
															ARCH 243 Arch Structures I
															ARCH 261 Architectural Graphics I
															ARCH 322IA World Architecture I
2nd Semester															
															ARCH 244 Arch Structures II
															ARCH 253 Architectural Design I
															ARCH 262 Architectural Graphics II
															ARCH 323IA World Architecture II
THIRD YEAR COURSES															
1st Semester															
															ARCH 331 Environmental Controls I
															ARCH 354 Architectural Design II
															ARCH 363 Architectural Graphics III
2nd Semester															
															ARCH 322 Environmental Controls II
															ARCH 340 Building Construction II
															ARCH 355 Architectural Design III
FOURTH YEAR COURSES															
1st Semester															
															ARCH 313 Professional Practice
															ARCH 456 Architectural Design IV
															Option Studios
2nd Semester															
GRADUATE YEAR COURSES															
															ARCH 551 Advanced Architectural Design
															ARCH 552 Architectural Research Methods
															ARCH 557 Architectural Design Studio
															ARCH 558 Advanced Building Studio