

**Ivy Tech Community College**  
**ENVIRONMENTAL DESIGN PROGRAM**  
**2016-2017 Curriculum Map**

* <b>LEARNING OUTCOMES</b> (I = Introduce; R = Reinforce; M = Mastery and PA = Exit Portfolio Assessment)	<b>REQUIRED COURSES and EXPERIENCES</b>											
	Design Theory	Inro to Env. Design	Constrc Graphics	Env. Design & Space Planning	Basic CAD	Lighting & Building System	Materl & Finishes	Prof Practice	Adv Env Design	Port Prep	History of Env Design	3-D CAD
<b>RESEARCH, DESIGN AND PROGRAMMING</b>	101	103	107	108	115	200	201	203	204	209	210	215
Research and analysis of the client's goals and requirements; and development of documents, drawings and diagrams that outline those needs.		I		R					M	PA		
Formulation of preliminary space plans and two and three dimensional design concept studies and sketches that integrate the client's program needs and are based on knowledge of the principles of interior design and theories of human behavior	I	I		R					M	PA	R	
Confirmation that preliminary space plans and design concepts are safe, functional, aesthetically appropriate, and meet all public health, safety and welfare requirements, including code, accessibility, environmental, and sustainability guidelines.		I		R					M	PA		
Selection of colors, materials and finishes to appropriately convey the design concept and to meet socio-psychological, functional, maintenance, lifecycle performance, environmental, and safety requirements	I	I		R					M	PA	R	
Communicates the design solution by developing a written and oral design statement to substantiate the project to the client.		I		R					M	PA		
Demonstrates knowledge of color theories and how color relates to space.	I	I		R					M	PA	R	
Demonstrates design solutions using the elements and principles of design to satisfy aesthetic criteria.	I	I		R					M	PA	R	
Demonstrates knowledge of historical styles in the built and natural environment, and shows awareness of current design trends.	I	I		R					M	PA	R	

Demonstrates application of human anthropometrics to design solutions.	I	I		R					M	PA		
Demonstrates knowledge of principles of sustainability to protect the public's health, safety and welfare in design projects.		I		R					M	PA		
Demonstrates application of universal design standards.		I		R					M	PA		
<b>RESIDENTIAL AND COMMERCIAL CONSTRUCTION SYSTEMS, CODES, GRAPHICS &amp; DELINEATION</b>	<b>101</b>	<b>103</b>	<b>107</b>	<b>108</b>	<b>115</b>	<b>200</b>	<b>201</b>	<b>203</b>	<b>204</b>	<b>209</b>	<b>210</b>	<b>215</b>
Demonstrates understanding of the building envelope including types of foundations, framing, roofing, windows and other materials on the impact of design solutions.			I	R	R	R	R		M	PA	R	R
Demonstrates understanding of energy efficiency, dangerous materials and organizations that regulate housing.			I	R	R	R	R		M	PA		R
Demonstrates understanding of building codes (NFPA, ADA and UBC)			I	R	R	R	R		M	PA		R
Demonstrates understanding of the implications of altering construction materials, systems as related to cost, structure, and design.			I	R		R	R		M	PA		
Demonstrates understanding and terminology of electrical systems and symbol application.			I	R	R	R			M	PA		R
Demonstrates understanding of light terminology, types of lights, and specification of appropriate quality and quantity of light.			I	R	R	R			M	PA		R
Demonstrates knowledge of plumbing, heating and cooling, and ventilation systems and their components to satisfy the design criteria.			I	R	R	R			M	PA		R
Recognizes the implications of altering the mechanical systems as related to the cost, structure, and design.			I	R		R			M	PA		
Demonstrates knowledge of installation procedures to achieve the expected levels of quality within time and budget.			I	R		R	R		M	PA		
Understanding of architectural blueprints/drawings in order to translate dimension and building features accurately.		I	I	R	R	R	R		M	PA		R
Demonstrates competency in producing drawings through the proper use of drafting equipment, scale applications, and measuring techniques incorporating professional graphic and presentation standards to convey the design solution clearly.		I	I	R	R	R	R		M	PA		R
Preparation of construction documents, consisting of plans, elevations, details and specifications, to illustrate non-structural and/or non-seismic partition layouts, power and communications locations, reflected ceiling plans and lighting designs, materials and finishes, and furniture layouts.			I	R	R	R	R		M	PA		R

Preparation of construction documents to adhere to regional building and fire codes, municipal codes, and any other jurisdictional statutes, regulations and applicable guidelines.			I	R	R	R	R		M	PA		R
<b>PRODUCT KNOWLEDGE, SELECTION AND SPECIFICATION, AND PROJECT MANAGEMENT</b>	<b>101</b>	<b>103</b>	<b>107</b>	<b>108</b>	<b>115</b>	<b>200</b>	<b>201</b>	<b>203</b>	<b>204</b>	<b>209</b>	<b>210</b>	<b>215</b>
Demonstrates knowledge of furniture styles, types, construction methods, materials, sizes, hardware and nomenclature.		I		R			R		M	PA	R	
Demonstrates product knowledge to specify appropriate material, equipment, fixtures, etc., to meet the needs of the consumer client.		I		R		R	R		M	PA	R	
Demonstrates competence in reading, ordering, and selecting materials from specification sheets as related to cost, size, client needs, energy, safety, and design		I		R		R	R		M	PA		
Demonstrates skill in identifying sources for new products and technologies.		I		R		R	R		M	PA	R	
Demonstrate competence in selection and specification of furniture, fixtures, equipment and millwork, including layout drawings and detailed product description; and provision of contract documentation to facilitate pricing, procurement and installation of furniture.		I		R		R	R		M	PA		
Demonstration provision of project management services, including preparation of project budgets and schedules				I		R	R	R	M	PA		
Demonstrate an understanding of the administration of contract documents, bids and negotiations as the client's agent.				I				R	M	PA		
Coordination and collaboration with other allied design professionals who may be retained to provide consulting services, including but not limited to architects; structural, mechanical and electrical engineers, and various specialty consultants				I				R	M	PA		
Confirmation that construction documents for non-structural and/or non-seismic construction are signed and sealed by the responsible interior designer, as applicable to jurisdictional requirements for filing with code enforcement officials.				I				R	M	PA		
Demonstrate an understanding of observation and reporting on the implementation of projects while in progress and upon completion, as a representative of and on behalf of the client; and conducting post-occupancy evaluation reports				I				R	M	PA		
<b>BUSINESS COMMUNICATION AND MANAGEMENT</b>	<b>101</b>	<b>103</b>	<b>107</b>	<b>108</b>	<b>115</b>	<b>200</b>	<b>201</b>	<b>203</b>	<b>204</b>	<b>209</b>	<b>210</b>	<b>215</b>
Demonstrate professional written and oral business communication	I	I		R			R	R	M	PA	R	

Demonstrates knowledge and application of business components by applying to the use of the business management forms								I	R	PA		
Demonstrates the knowledge of responsibility of the designers' role within the design build team and application of team work experience.								I	R	PA		
Demonstrates understanding of professional code of conduct, ethical standards of business conduct and professional service to ensure public confidence.								I	R	PA		
Demonstrates understanding of business management strategies to resolve and avoid conflicts that may surface during execution of the contract to satisfy the client.								I	R	PA		
Demonstrates application of systematic evaluation of all project components to establish selling price								I	R	PA		
Demonstrates application of processes to communicate with the client in oral, written, and visual presentations through various project stages.								I	R	PA		
Demonstrates knowledge of general business principles such as the process to form a business, basic accounting and record keeping, human resource management, and marketing								I	R	PA		
Demonstrate knowledge and first-hand experience of a working design studio										PA		

\*Outcomes based on NCIDQ, ASLA, and NKBA BOK VI professional design requirements