

# THE SCHOOL OF ARCHITECTURE AND PLANNING

ARCHITECTURE  
AND  
ENVIRONMENTAL  
DESIGN

CONSTRUCTION  
MANAGEMENT



## SCHOOL OF ARCHITECTURE AND PLANNING

### Dr. Mary Anne Alabanza Akers, Dean

The School of Architecture and Planning (SA+P) is committed to the fundamental qualities that bring together a balanced educational program in the exploration and documentation, design, planning and management of the built and natural environment through an interdisciplinary learning process, applied research, and community-based outreach. It emphasizes responsible leadership, social responsibility, and professional practice.

#### Core Values

Core values are the essential and enduring tenets of each academic unit. The primary core values for the School of Architecture and Planning are: *Ethics, Diversity, Collaboration, Social Responsibility, Environmental Stewardship, Possibility and Choice, and Applied Research*. To support these values the School conducts its required academic, administrative, and management responsibilities so that qualities leading to an outstanding environment for teacher-student learning are ensured, encouraged and implemented.

#### Mission Statement

*Education Mission:* The School of Architecture and Planning (SA+P) provides professional preparation for future Architects, Landscape Architects, Constructors and Planners. We provide access to all students, including those with less demonstrable preparation. Through our graduates, our programs advance sustainability and enrich and preserve cultural and built environments.

*Research Mission:* SA+P embraces an interdisciplinary agenda that promotes sustainability in its broadest sense. It engages research that value design and practice leading to problem solving and theory building, which focus on urban core areas of the region.

*Service and Outreach:* SA+P's service and outreach priority rests within our desire to support the neighborhoods of Baltimore. Service is provided to communities and nonprofit organizations through collaborative ventures.

*Diversity:* SA+P fosters knowledge and appreciation for the cultures and contributions of diverse segments of humanity and their environments. We promote the inclusion of students who have been traditionally excluded from the study

of the built and natural environment.

### BACHELOR OF SCIENCE IN ARCHITECTURE AND ENVIRONMENTAL DESIGN (BSAED)

#### Gabriel Kroiz, Program Director

The Bachelor of Science in Architecture and Environmental Design (BSAED) program is a four year pre-professional degree program that prepares students for careers in Architecture and Environmental Design professions. The program is based on the understanding that the skills required for designing the built environment come from a broad education that draws on science, technology, humanities and the arts. The BSAED curriculum provides a balanced course of study including courses in graphic skills, technology, history, and theories of the built environment as well as courses throughout the university. The core of the program are the design studio courses where students synthesize what they have learned in the exploration of hypothetical and real life design projects. BSAED graduates are prepared for entry level positions in architecture and environmental design fields, and for advancement to professional degree programs, including the MSU Graduate Programs in Architecture, Landscape Architecture, and City and Regional Planning.

#### Mission

The BSAED program supports the mission of the Morgan State University and the School of Architecture and Planning to:

1. Provide access to the architecture and environmental design professions for African American and minority students. The ability to increase minorities in the decision making processes that shape the built environment is beneficial to our students, the design professions and the larger community.
2. Engage in continued research on the urban design and architectural issues involved in the sustainable redevelopment of Baltimore City. Through coursework and design projects, students will become familiar with the issues and concerns affecting design within our region and within the urban context.

#### Program Overview

The BSAED program requires 126 credits for the completion of the program and offers students curriculum options for Architecture, Landscape Architecture and City and Regional Planning. The Program consists of an introductory freshman year in which students focus on General Education Requirements (GER) with 9 credits of

in-major introductory coursework. Based on the successful completion of introductory coursework, students proceed to the 2nd – 4th year program and will typically take 12 credits in-major including 6 credits of design studio, 3 credits of a technology subject, and 3 credits of a history or theory subject. The second year is focused on basic design skills. The third year exposes all students to projects ranging from urban design to individual buildings. The fourth year allows students to select from a range of advanced design studios based on individual interest.

### The 3+2 Program (5-year Masters of Architecture Program)

Advanced BSAED students are encouraged to apply for the 5-year, 168-credit Master of Architecture Program. Students are admitted to this competitive program based on GPA, portfolio, letter of intent and letters of recommendation. Upon completion of the 3+2 program, the student earns both bachelor's and master's degrees. This is an NAAB accredited degree program which prepares a student to pursue a career as a licensed architect.

### Requirements for BSAED degree

1. Students must complete all University General Education, and Core requirements
2. Students must earn a cumulative average of 2.0 or better.
3. Students must earn a 2.0 or better in their major courses with no outstanding grades below “C” (which includes all required supporting courses).
4. Students must perform satisfactorily in the University Speech and Writing proficiency examinations
5. Students must earn the final thirty (30) credits of their degree at Morgan.
6. Students must complete 78 credits in major and 126 credits total.

The Required courses are listed under the following five subgroups:

#### A. General Education Requirements

Students majoring in Architecture and Environmental Design must complete the following courses:

Course	Description	Credits
ORAP 107	Freshman Orientation for ARCH majors	1
ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

MATH 126*	Analytical Geometry	4
PHIL 109	Intro to Logic	3
HEED 100	Health Education	2
PHED XXX	Physical Ed. Activity Elective	1
PHYS 101*	Intro to Physics	4
HIST 101/105	World History I/US History I	3
HIST 102/106	World History II/US History II	3
HIST 350	Intro to African Diaspora	3
HUMA 201	Intro to Humanities I	3
HUMA 202	Intro to Humanities II	3
BIOL 101	Intro to Biology I	4
GENL 201	Computer Literacy	2
MHTC 103**	Intro to Group Dynamics	3
XXX	Humanities Elective	3
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### B. Core Requirements

Course	Description	Credits
ARCH 101	Concepts & Theories of Built Environ I	3
ARCH 103	Communication Skills I	3
ARCH 104	Communication Skills II	3
ARCH 201	Design I	6
ARCH 202	Design II	6
ARCH 205	History of the Built Environment I	3
ARCH 206	History of the Built Environment II	3
ARCH 207	Site Design	3
ARCH 208	Building Materials	3
ARCH 301	Design III	6
ARCH 302	Design IV	6
ARCH 401/403	Design V or Urban Design I	6
ARCH 402/404	Design VI or Urban Design II	6
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\*PHYS 101 and MATH 126 are supporting courses for BSAED majors. Students must earn a minimum grade of “C”.

\*\*Fulfills social and behavioral science elective.

### C. History and Theory Electives (Any three of the following)

ARCH 102	Concepts/Theories Built Env. II	3
ARCH 304	Urban Development of Baltimore	3
ARCH 305	Design and Human Behavior	3
ARCH 331	Environmental Justice	3
ARCH 406	History of the Built Environment III	3
ARCH 415	Historic Preservation	3
ARCH 416	Office Practice and Management	3
ARCH 418	History and Theory Seminar	3
ARCH 431	Public Space Planning	3
ARCH 445	Seminar in the Built Environment	3
		<b>9</b>



**D. Technology Electives (Any three of the following)**

ARCH 303	Sustainability	3
ARCH 311	Statics and Strength of Materials***	3
ARCH 312	Building Structural Systems***	3
ARCH 321	Grading & Drainage	3
ARCH 420	Environmental Controls	3
ARCH 422	Production Techniques	3
ARCH 423	Advanced Building Structures	3
ARCH 426	Plant Materials	3
ARCH 428/429	Technology Seminar I/II	3
		<b>9</b>

**E. Core Elective**

ARCH XXX	ARCH Elective	3
<b>TOTAL</b>		<b>78</b>

\*\*\*Students considering applying for the 168-credit Master in Architecture program must select ARCH 311 and 312 as two of their three technology electives in the third year.

**BACHELOR OF SCIENCE IN CONSTRUCTION MANAGEMENT (BSCM)**

The Bachelor of Science in Construction Management (BSCM) program develops students who understand the complexity of construction projects, appreciate the values of sustainable principles and their applications, and are able to manage people in the field site. The BSCM curriculum is guided by the accreditation standards and criteria of the American Council for Construction Education.

**Mission:** The mission of the BSCM program is to educate students on basic construction management principles and practices, as well as their application to sustainable construction projects. With emphasis on green building technologies, materials and processes, the students will be well prepared to handle projects that require an integrated approach to environmental stewardship. The curriculum is challenging and extremely rewarding with emphasis on technical (i.e., architectural and engineering) content areas. Students receive a solid base in the management basics required of the construction industry.

At the end of the program of study, students will have a foundation of skills and knowledge in construction science, particularly in the areas of design and construction systems, construction graphics, construction surveying, methods and materials, as well as estimating, planning and scheduling, construction accounting and finance, project management, and safety procedures and practices.

**Program Overview:** To fulfill the mission of the program, the BSCM curriculum requires 131 credits hours for

completion of core and general education.

1. Students must complete all University, General Education, Supporting Course, Business & Management, Civil Engineering & Core requirements.
2. Students must complete 131 credits total.
3. Students must earn a cumulative average of 2.0 or better.
4. Students must earn a 2.0 or better in their core and supporting courses with no outstanding grades below "C" (which includes all required Business & Management and Civil Engineering courses).
5. Students must perform satisfactorily in the University Speech and Writing proficiency requirements.
6. Students must earn the final thirty (30) credits of their degree at Morgan.

The required courses are listed under the following six subgroups:

**A. General Education/University Requirements**

Course	Description	Credits
ORAP 107	Fresh. Orientation for ARCH majors	1
PHEC XXX	Physical Ed. Activity Elective	1
ENGL 101	Freshman Composition I	3
MATH 141	Precalculus	4
ENGL 102	Freshman Composition II	3
PHIL 109	Intro. to Logic	3
HUMA 201	Introduction to Humanities I	3
HUMA 202	Introduction to Humanities II	3
HIST 101/105	World History I/US History I	3
HIST 102/106	World History II/US History II	3
ECON 212	Principles of Economics II	3
HIST 350	Intro. to African Diaspora	3
XXX	Humanities Elective*	3
BIOL 101	Introductory Biology I	4
PHYS 101	Introductory to Physics	4
HEED 100	Healthful Living	2
GENL 201	Computer Literacy	2
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\*PHIL 220 Recommended

**B. Supporting Course Requirements**

SPCH 101	Prin. of Speech Communication	3
MATH 242	Calculus I	4
PHYS 203	General Physics I	4
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**C. Business and Management Requirements**

MGMT 324	Organizational Behavior	3
ACCT 201	Principles of Accounting I	3
FIN 343	Managerial Finance	3

BUAD 361	Fundamentals of Risk Management	3
BUAD 381	The Legal & Ethical Env. of Business	3
<b>AND either</b>		3
MGMT XXX	or Management Elective or	
BUAD 202	Business Leadership Seminar	

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**D. Construction Science Requirements**

ARCH 103	Communication Skills I	3
ARCH 208	Building Materials	3
ARCH 311	Statics and Strength of Materials	3
ARCH 312	Building Structural Systems	3
ARCH 420	Environmental Controls	3
CEGR 436 or	Elementary Structural Design or	
CEGR XXX	Elective	3
CMGT 201	Construction Methods I	3
CMGT 301	Site Planning and Surveying	3
CMGT 401	Sustainable Construction Practices	3

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**E. Construction Requirements**

ARCH 241	Intro to Construction Management	3
ARCH 242	Construction Operations	3
ARCH 441	Production Techniques	3
ARCH 442	Construction Cost Estimating	3
CEGR 498 or	Special Topics in Engineering or	3
CEGR 400	Civil Engineering Project Management	
CMGT 211	Construction Planning and Scheduling	3
CMGT 311	Construction Safety Management	3
CMGT 411	Construction Law	3

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**F. Internship**

CMGT498	Construction Management Internship	3
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**ARCHITECTURE COURSE OFFERINGS**

**ARCH 101 CONCEPTS AND THEORIES OF THE BUILT ENVIRONMENT I** – *Three hours; 3 credits.* This course will introduce students to research methodologies, critical thinking and theoretical frameworks for understanding Architecture and the Built Environment. The concepts and theories addressing formal, cultural and technological issues of the built environment will provide the foundation for advanced study in the BSAED program. (FALL)

**ARCH 102 CONCEPTS AND THEORIES OF THE BUILT ENVIRONMENT II** – *Three hours; 3 credits.* This course is a continuation of Concepts and Theories of

the Built Environment I, ARCH 101. Topics discussed will focus on recent conceptual and technological developments and their impact on the Environmental Design disciplines. ARCH 102 fulfills a history and theory elective requirement. **Prerequisite:** ARCH 101 or approval of the Program Director. (SPRING).

**ARCH 103 COMMUNICATION SKILLS I** – *Five hours; 3 credits.* This course introduces the fundamental hand skills of drafting, freehand drawing and model building, as well as computer skills required to create a portfolio. Drafting exercises will introduce the conventions of two and three-dimensional representation, freehand drawing exercises will introduce techniques for observing and recording the environment, and model building assignments will introduce students to materials and techniques for building models. The preparation of a portfolio for the semester will introduce computer skills including concepts of file management, digital photography, scanning, and software for photo editing and desktop publishing. (FALL).

**ARCH 104 COMMUNICATION SKILLS II** – *Five hours; 3 credits.* This course continues the student's development of hand drawing, model building and computer skills. Hand drawing techniques will include drawing types and scales common to the design professions. Students will be introduced to further model building and basic woodworking techniques and build scale models and full scale prototypes. Computer skills will include introduction to CAD and 3D modeling software as well as the use of digital fabrication technologies. **Prerequisite:** ARCH 103. (SPRING).

**ARCH 201 DESIGN I (FORM, SPACE & ORDER)** – *Eight hours studio, two hours lecture; 6 credits.* This studio course will develop the student's understanding of the fundamentals of visual perception and the natural and formal ordering systems that inform two and three-dimensional design, architectural composition, and urban design. Conceptual design projects will focus on the time/space experience of architectural form. Exercises will progress from abstract 2-D and 3-D compositions to designs that address specific programmatic and symbolic goals. **Prerequisites:** ARCH 101, ARCH 104. [Formerly ARCH 303; and Formerly Basic Design] (FALL).

**ARCH 202 DESIGN II (SITE & STRUCTURE)** – *Eight hours studio, two hours lecture; 6 credits.* This studio course will expand on the fundamental design principals from ARCH 201 and introduce physical and

environmental concerns to the design of sites, buildings, and interior spaces. Students will analyze traditional and vernacular design precedents to understand their material properties, structural concepts, as well as responses to site, environmental and cultural factors. Students will apply the lessons of structure and material, and environmentally responsive design to a series of studio projects of increasing complexity. (Formerly Design Studio I). **Prerequisite:** ARCH 201. (SPRING).

**ARCH 203 COMMUNICATION SKILLS III** – *Four hours; 3 credits.* This course introduces students to advanced hand-graphics as a tool to conceive, analyze, simulate and experience the built environments. The knowledge and skills furnish students with the abilities necessary to perform competently in the design studio and/or professional office. **Prerequisites:** ARCH 104. (FALL/SUMMER).

**ARCH 204 COMMUNICATION SKILLS IV** – *Four hours; 3 credits.* This course introduces students to advanced computer 3-dimensional geometric modeling as a tool to conceive, analyze, simulate and experience the built environments. The knowledge and skills furnish students with the abilities necessary to perform competently in the design studio or professional office. **Prerequisite:** ARCH 104. (SPRING/SUMMER).

**ARCH 205 HISTORY OF THE BUILT ENVIRONMENT I (ANTIQUITY – 18th CENTURY)** – *Three hours; 3 credits.* This survey course introduces students to global examples of architecture, landscape and urban design, from Antiquity through the 18th century. Students are introduced to formal patterns as well as the technological and cultural dynamics that influenced the development of the built environment in both western and non-western examples. **Prerequisite:** ARCH 101 or approval of Program Director (FALL)

**ARCH 206 HISTORY OF THE BUILT ENVIRONMENT II (19th CENTURY – PRESENT)** – *Three hours; 3 credits.* This survey course introduces students to global examples of architecture, landscape and urban design, from the 19th century to the Present. Students are introduced to formal patterns as well as technological and cultural dynamics that influenced the development of the built environment in both western and non-western examples. **Prerequisite:** ARCH 101 or approval of Program Director (SPRING).

**ARCH 207 SITE DESIGN** – *Two hours lecture, two hours lab; 3 credits.* This course introduces students to the principles and practices of site planning and design that take place within a biophysical and social context to accommodate human needs and aspirations. The course focuses on spatial information and mapping; site selection and programming;

site inventory and analysis; design and implementation: conceptual development and design development. **Prerequisite:** ARCH 103,104 [Formerly ARCH 303 (Formerly Site Planning)]. (FALL).

**ARCH 208 BUILDING MATERIALS** – *Two hours lecture, two hours lab; 3 credits.* This course will introduce methods and materials commonly used in building construction as well as criteria for their evaluation and selection as part of the building design process. Students will become familiar with common building practices within our region as well as their environmental impact and alternative sustainable technologies. **Prerequisite:** ARCH 104. (Formerly ARCH 417). (SPRING).

**ARCH 241 INTRODUCTION TO CONSTRUCTION MANAGEMENT** – *Three hours; 3 credits.* This course is an introduction to basic principles and skills required to organize and manage large construction projects, including the issues of liability and coordination responsibilities of the owner, project manager, general contractor, sub-contractor, and design professionals. (Formerly ARCH 451, Formerly ARCH 341). (FALL).

**ARCH 242 CONSTRUCTION OPERATIONS** – *Three hours; 3 credits.* This course introduces the basic principles and elements required to organize, operate and manage small-, medium-, and large-sized construction companies. It focuses on the operation from the executive perspective: contractual responsibilities and the roles of contractor owner, and design and engineering professionals. It also explores the issues of labor relations and dispute resolution. **Prerequisite:** ARCH 241. (Formerly ARCH 342). (SPRING).

**ARCH 249 CONSTRUCTION OBSERVATION** – *One hour, 1 credit.* This one credit lecture class will provide the opportunity for students to visit a construction site of a project on campus (The new CBEIS Building) on a weekly basis to both observe the actual progress of construction and learn about the construction management and construction administration processes. (FALL/SPRING)

**ARCH 301 DESIGN III (INTRO TO URBAN DESIGN)** – *Eight hours studio, two hours lecture; 6 credits.* This course introduces students to urban design for sites in Baltimore City. Students will analyze the existing settlement patterns, architectural character, environmental factors, transportation, use, history, demographics and other concerns affecting the areas of study. Students will then work individually and in groups on projects including master plans, streetscapes, individual blocks and infill buildings. **Prerequisites:** ARCH 202. (Formerly Design Studio II). (FALL).

**ARCH 302 DESIGN IV (HOUSING STUDIO)** – *Eight hours studio, two hours lecture; 6 credits.* This course focuses on the design of a series of infill projects of increasing scale and complexity for urban sites in Baltimore City. Projects will include a single residence, housing and mixed-use and develop skills including site design, program organization, structural organization, code analysis, vertical circulation and façade development. **Prerequisites:** ARCH 301. (SPRING).

**ARCH 303 SUSTAINABILITY** – *Three hours; 3 credits.* This course explores “green technology” as well as the relationship between the built environment and such vital challenges as energy consumption, power supply, alternative energy sources, and building materials. Students further examine the social, ecological, and economic impact of built form on the environment by studying the relationship among natural, biological, ecological processes, urban sprawl, and environmental resources. The content of this course will be examined through the lens of the following six principles of “green design:” conserving energy, working with climate, minimizing new resources, respect for users, respect for site and holism. **Prerequisites:** ARCH 104. (Formerly ARCH 405). (FALL).

**ARCH 304 URBAN DEVELOPMENT OF BALTIMORE** – *Three hours; 3 credits.* The course introduces students to the principles and practices of urban planning using the Baltimore/Washington metropolitan areas as a case study. Students organize and carry out on-site case studies. **Prerequisites:** ARCH 101, 205, 206. (FALL).

**ARCH 305 DESIGN AND HUMAN BEHAVIOR** – *Three hours; 3 credits.* This course covers the cultural, social, and psychological factors of human behavior that must be taken into consideration when designing the environment. This includes considering the characteristics, causes, and consequences of acts, meanings, participation, relationships, and settings; plus the forms they assume and variations they display. Theories and methods of environmental assessment and design are studied based on an understanding of mutually supportive relationships between people and their physical environments. **Prerequisites:** ARCH 101, 205, 206. (Formerly ARCH 421). (SPRING).

**ARCH 311 STATICS AND STRENGTH OF MATERIALS** – *Three hours; 3 credits.* This course is devoted to the development and application of the principles of static mechanics and strength of materials as they relate to the analysis of building structures. **Prerequisites:** PHYS 101 & MATH 126 or Calculus-Based Course (Formerly ARCH 305). (FALL).

**ARCH 312 BUILDING STRUCTURAL SYSTEMS** – *Three hours; 3 credits.* This course will familiarize

students with common Building Structural Systems including masonry, wood, steel, and concrete. Students will gain a conceptual understanding of how these systems perform as well as a familiarity with the organization, components, sizes, connections, methods of assembly, resistance to horizontal forces, cost and other factors affecting their application in buildings. **Prerequisite:** ARCH 311. (Formerly ARCH 411). (SPRING)

**ARCH 321 GRADING & DRAINAGE** – *Three hours; 3 credits.* This course is the study of the shaping of the earth's surface in an ecological, technical and aesthetic manner with an emphasis on the technical ability to transform design ideas into physical reality. Specific topics include contours and slope analysis, the grading process, earthwork, storm runoff analysis, and grading as design. **Prerequisite:** ARCH 207. (Formerly ARCH 422). (FALL).

**ARCH 322 TECHNOLOGY RESOURCES FOR PLANNERS** – *Three hours; 3 credits.* This course is an introduction to Geographic Information Systems and its specific application to the built environment profession. Topics include: spatial modeling, visual analysis, resource management, site design, master planning, and public advocacy. **Prerequisite:** ARCH 104. (Formerly ARCH 436). (FALL).

**ARCH 331 ENVIRONMENTAL JUSTICE** – *Three hours; 3 credits.* This course incorporates complex issues of environmental justice and social equity as important components to discussing community planning and public policy actions. This includes community-related environmental projects, e.g., public transportation services, housing supply, community development, public infrastructure, public education and health. The focus is to determine not only the social needs but also revenue and policy constraints so that environmental decisions become better informed, more accurate and less harmful. (SPRING).

**ARCH 401 DESIGN V** – *Eight hours studio, two hours lecture; 6 credits.* This topical design studio will combine research activities with focused design project. Students will perform directed research and develop a level of expertise in a particular building type. This will be applied to design project(s). The design results will both reflect the students accumulated skills in addressing program, site, structure and building design and the depth of knowledge acquired from the research portion of the studio. **Prerequisites:** ARCH 302, ARCH 312. (Formerly Design Studio IV). (FALL)

**ARCH 402 DESIGN VI** – *Eight hours studio, two hours lecture; 6 credits.* The premise of integrated design is that bringing the project team together early and



often in the design process is essential to the production of high performance buildings. This course will both look at contemporary practices in high performance buildings and simulate the integrated design process within the studio including bringing mechanical, structural and other design consultants as students develop projects to a Design Development level of completion. **Prerequisites:** ARCH 401, ARCH 312. (Formerly Design Studio V). (SPRING).

**ARCH 403 URBAN DESIGN I** – *Eight hours studio, two hours lecture; 6 credits.* This studio is focused on community design with the physical environment viewed as a catalyst for community enhancement and revitalization. Typical issues of concern include, community identity, the role of open space in urban neighborhoods, and sustainability, safety and livability. **Prerequisite:** ARCH 301, ARCH 302 (FALL).

**ARCH 404 URBAN DESIGN II** – *Eight hours studio, two hours lecture; 6 credits.* This studio will focus on a mixed-use redevelopment project as a tool for physical, social and economic revitalization of urban areas. Issues of land use, transportation, preservation, sustainability and urban form will inform the planning and design process. **Prerequisite:** ARCH 301, ARCH 302 (SPRING).

**ARCH 406 HISTORY OF THE BUILT ENVIRONMENT III** – *Three hours; 3 credits.* This course focuses on the relation between architecture and architectural theory through the study of writings and built works by significant 19th and 20th Century Architects. Students will perform research and situate examples of contemporary practices within the context of theoretical traditions. **Prerequisite:** ARCH 206. (Formerly ARCH 406). (FALL).

**ARCH 412 ADVANCED WALL SYSTEM DESIGN** – *Three hours; 3 credits.* This course will expand upon the structural, mechanical, and design lessons students have accumulated to instruct students in intricate and innovative wall system construction. Information about recent construction industry innovations will complement extensive technical instruction about new uses of wall systems in environmental design. Throughout this course, techniques for designing and documenting wall section details will be introduced systematically, affording each student a repertoire of technical vocabulary and graphic skills suitable both for practical work and for design assembly explorations. **Prerequisites:** ARCH 208 (FALL).

**ARCH 415 HISTORIC PRESERVATION** – *Three hours; 3 credits.* This course introduces the student to the field of historic preservation, examining the history and

theory of preservation in architecture and the built environment. Course work includes historical aspects, the issue of sustainability, state and local guidelines, preservation standards, career opportunities, and professional practices. (FALL).

**ARCH 416 OFFICE PRACTICE AND MANAGEMENT** – *Three hours; 3 credits.* This course introduces students to IDP, NCARB and the ARE exams as preparation for professional careers. Students are also introduced to the office work environment, business models, AIA Contract Documents and the roles and responsibilities of the members of the building process. **Prerequisite:** Seniors Only. (Formerly ARCH 308). (SPRING).

**ARCH 418 HISTORY/THEORY SEMINAR** – *Three hours; 3 credits.* This seminar will introduce students to advanced topics relating to the history and theory of architecture and environmental design. The topics will reflect individual faculty research interest and expertise. **Prerequisite:** Approval of the Program Director. (FALL/SPRING).

**ARCH 420 ENVIRONMENTAL CONTROLS** – *Three hours; 3 credits.* This course covers basic principles of plumbing, HVAC systems, electric, illumination, and acoustics in environmental design and construction. It expands the student's understanding of the nature and characteristics of various environmental systems as well as to develop their ability to make choices between systems that best resolve the problems associated with cost, social accommodation, operating efficiency, durability, scheduling, safety, and aesthetics. **Prerequisite:** ARCH 208. (FALL).

**ARCH 422 PRODUCTION TECHNIQUES FOR LANDSCAPE ARCHITECTS** – *Three hours; 3 credits.* The course introduces the principles, techniques, and activities necessary to develop a set of construction documents as related to the Landscape Architecture profession, including schedules and specifications. (FALL).

**ARCH 423 ADVANCED BUILDING STRUCTURES** – *Three hours; 3 credits.* This course will look at advanced and non-traditional building structural systems and material applications. Sources will include structures found in nature, traditional and non-western structures and contemporary explorations in structural design. The course involves a lab in which students will use the schools model shop to develop and test designs of structural materials and assemblies. **Prerequisite:** ARCH 312. (FALL)

**ARCH 424 INTERIOR MATERIALS AND FINISHES** – *Three hours; 3 credits.* The purpose of this class is to intro-



duce students to materials, finishes and technologies used in interior design. Students will become familiar with material details, product specification and cost, durability and other factors affecting the design of interior spaces. **Prerequisite:** ARCH 104. (Formerly ARCH 313-Intro to Interior Design). (SPRING).

**ARCH 426 PLANT MATERIALS** – *Three hours; 3 credits.* This course is an introduction to plant materials in terms of their botanical identification, design characteristics and ecological requirements. Trees, shrubs, vines, and ground covers commonly used in urban planting design are emphasized. **Prerequisite:** Permission of the Instructor. (SPRING).

**ARCH 428 TECHNOLOGY SEMINAR I** – *Three hours; 3 credits.* This seminar will introduce students to advanced topics in building technology. The topics will reflect individual faculty research interest and expertise. **Prerequisite:** ARCH 208 (FALL/SPRING).

**ARCH 429 TECHNOLOGY SEMINAR II** – *Three hours; 3 credits.* This seminar will introduce students to advanced topics in building technology. The topics will reflect individual faculty research interest and expertise. **Prerequisite:** ARCH 208 (FALL/SPRING).

**ARCH 431 PUBLIC SPACE PLANNING** – *Three hours; 3 credits.* This course investigates the physical, cultural and regulatory factors contributing to the design of public spaces. Case studies and field research will look at context and environmental factors including transportation networks, green spaces, land use patterns, and infrastructure, and performance standards including safety, government codes and regulations, accessibility guidelines etc. (Formerly Public Facilities Planning). **Prerequisite:** ARCH 207. (FALL).

**ARCH 432 INTRODUCTION TO REAL ESTATE PLANNING I** – *Three hours; 3 credits.* This course explores the theory, principles and practices of the various facets of the real estate industry, that impact on land use policy and thought, and the shaping of communities. Students learn the products and programs in use today to finance community development, as well as they explore innovative construction technologies that influence decision-making in real estate development and land use planning. **Prerequisite:** ARCH 207 or approval of Program Director. (SPRING).

**ARCH 435 INTRODUCTION TO REAL ESTATE PLANNING II** – *Three hours; 3 credits.* This course expands upon the theories, principles and practices of the

real estate industry presented in Course I and incorporates a project management approach to address a land-use-planning situation. Students will work in teams to propose strategies, and design components that comprise a community development project plan. Students will structure the specifics of the project being designed and identify and propose the task to be undertaken for project implementation. **Prerequisite:** ARCH 207 or permission of the Instructor. (FALL).

**ARCH 441 PRODUCTION TECHNIQUES** – *Three hours; 3 credits.* This course introduces the steps and activities necessary to develop a set of construction documents, including schedules and specifications as related to detailed plans for structures and site development. **Prerequisite:** ARCH 104. (SPRING).

**ARCH 442 CONSTRUCTION COST ESTIMATING** – *Three hours; 3 credits.* This course introduces the role of cost estimating in the various phases of the construction process. It explores the cost data and review procedures, quantity take-off rules and procedures, and construction cost estimating. **Prerequisite:** ARCH 241. (SPRING).

**ARCH 445 SEMINAR IN BUILT ENVIRONMENT STUDY** – *Three hours; 3 credits.* This seminar will introduce students to advanced topics relating to the history and theory of architecture and environmental design. The topics will reflect individual faculty research interest and expertise. **Prerequisite:** Approval of Program Director. (FALL).

**ARCH 498 ENVIRONMENTAL DESIGN INTERNSHIP I** – *Nine hours; 3 credits.* This course provides the opportunity for the student to obtain valuable supervised work experience at a professional firm, government agency, non-profit group or organization that is involved with planning, design or management practices that are related to the academic objectives within the BSAED curriculum. **Prerequisite:** Must be approved by Department. (Formerly ARCH 430). (FALL).

## CONSTRUCTION MANAGEMENT COURSE OFFERINGS

**CMGT 201 CONSTRUCTION METHODS I** – *Three hours; 3 credits.* The study, analysis, and application of project planning, work methods, materials, equipment, and power tool and equipment safety methods employed on residential construction projects. **Prerequisite:** ARCH 241 (SPRING)

**CMGT 211 CONSTRUCTION PLANNING AND SCHEDULING**

– *Three hours; 3 credits.* The course deals with the planning and design of construction processes. Course topics include production systems, behavior of construction systems and workers, the relationships between subsystems in the construction process, and scheduling and queueing systems. (SPRING).

**CMGT 301 SITE PLANNING AND SURVEYING**

– *One hour lecture, four hours laboratory; 3 credits.* This course introduces students to the principles and practices of site planning and surveying. The planning section focuses on spatial information and mapping, topographic surveys, site selection and programming, site inventory and analysis; while the surveying section covers coordinates, directions, distances and elevations. **Prerequisite:** ARCH 103. (FALL).

**CMGT 311 CONSTRUCTION SAFETY MANAGEMENT**

– *Three hours; 3 credits.* This course will cover construction safety with Occupational Safety and Health Administration (OSHA) emphasis, general safety and health provisions, records, and safety management programs. (SPRING).

**CMGT 401 SUSTAINABLE CONSTRUCTION PRACTICES I**

– *Three hours; 3 credits.* This course will cover components of the LEED rating system, including benefits of green building, return on investment (ROI), green building tools and resources, and case studies with lessons learned. (FALL).

**CMGT 411 CONSTRUCTION LAW**

– *Three hours, 3 credits.* The course presents the legal aspects of construction contracts and documents and the application of Maryland and federal case law to construction and development claims and litigation. **Prerequisite:** BUAD 381. (SPRING).

**CMGT 498 CONSTRUCTION MANAGEMENT INTERNSHIP**

– *Nine hours; 3 credits.* Supervised professional experiences in firms or companies involved in the construction industry. A presentation by the student will be held to summarize his/her internship experience. **Prerequisite:** At least 9 credits of core construction management courses. Must be approved by Department. (SUMMER).

**MORGAN STATE UNIVERSITY  
SCHOOL OF ARCHITECTURE AND PLANNING  
BACHELOR OF SCIENCE IN ARCHITECTURE & ENVIRONMENTAL DESIGN  
SUGGESTED CURRICULUM SEQUENCE**

**FRESHMAN YEAR (FIRST SEMESTER)**

ARCH 101	CONCEPTS AND THEORIES BUILT ENVIRONMENT I	3
ARCH 103	COMMUNICATIONS SKILLS I	3
ORAP 107	ORIENTATION FOR ARCH MAJORS	1
HIST 101/105	WORLD HIST./US HIST. I	3
ENGL 101	ENGLISH COMPOSITION I	3
MHTC 103*	INTRO TO GROUP DYNAMICS	3
		<b>16</b>

**FRESHMAN YEAR (SECOND SEMESTER)**

ARCH 104	COMMUNICATIONS SKILLS II	3
HIST102/106	WORLD HIST./US HIST. II	3
ENGL 102	ENGLISH COMPOSITION II	3
MATH 126	ANALYTICAL GEOMETRY	4
HEED 100	HEALTHFUL LIVING	2
PHEC XXX	PHYS. ED. ELECTIVE	1
		<b>16</b>

**SOPHOMORE YEAR (FIRST SEMESTER)**

ARCH 201	DESIGN I	6
ARCH 205	HIST. BUILT ENVIRONMENT I	3
ARCH 207	SITE DESIGN	3
BIOL 101	INTRO TO BIOLOGY	4
		<b>16</b>

**SOPHOMORE YEAR (SECOND SEMESTER)**

ARCH 202	DESIGN II	6
ARCH 206	HIST. BUILT ENVIRONMENT II	3
ARCH 208	BUILDING MATERIALS	3
PHYS 101	INTRO TO PHYSICS	4
		<b>16</b>

**JUNIOR YEAR (FIRST SEMESTER)**

ARCH 301	DESIGN III	6
ARCH XXX	HISTORY/THEORY ELECTIVE	3
ARCH XXX**	TECHNOLOGY ELECTIVE**	3
HUMA 201	INTRO TO HUMANITIES I	3
GENL 201	COMPUTER LITERACY	2
		<b>17</b>

**JUNIOR YEAR (SECOND SEMESTER)**

ARCH 302	DESIGN IV	6
ARCH XXX	HISTORY/THEORY ELECTIVE	3
ARCH XXX**	TECHNOLOGY ELECTIVE**	3
HUMA 202	INTRO TO HUMANITIES II	3
		<b>15</b>

**SENIOR YEAR (FIRST SEMESTER)**

ARCH 401/403	DESIGN V/URBAN DESIGN I	6
ARCH XXX	HISTORY/THEORY ELECTIVE	3
ARCH XXX	TECHNOLOGY ELECTIVE	3
HIST 350	AFRICAN DIASPORA	3
		<b>15</b>

**SENIOR YEAR (SECOND SEMESTER)**

ARCH 402/404	DESIGN VI/URBAN DESIGN II	6
ARCH XXX	ARCH ELECTIVE	3
PHIL 109	INTRO TO LOGIC	3
XXX	HUMANITIES ELECTIVE	3
		<b>15</b>

**TOTAL CREDIT HOURS****126**

\*MHTC 103 – Intro to Group Dynamics fulfills Social and Behavioral Science Elective

\*\*BSAED Students considering applying for the 3+2 Master in Architecture program must register for the following Technology Elective courses in the junior year: ARCH 311 and ARCH 312.



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**BACHELOR OF SCIENCE IN CONSTRUCTION MANAGEMENT**  
**SUGGESTED CURRICULUM SEQUENCE**

**FRESHMAN YEAR (FIRST SEMESTER)**

ORAP 107	ORIENTATION FOR ARCH MAJORS	1
ARCH 103	COMMUNICATIONS SKILLS I	3
ENGL 101	ENGLISH COMPOSITION I	3
HIST 101/105	WORLD HIST./US HIST. I	3
HEED 100	HEALTHFUL LIVING	2
SPCH 101	PRIN. OF SPEECH COMM.	3

**15****SOPHOMORE YEAR (FIRST SEMESTER)**

ARCH 241	INTRO CONSTRUCTION MNG'T	3
MATH 241	CALCULUS I	4
HUMA 201	INTRO TO HUMANITIES I	3
PHYS 203	GENERAL PHYSICS I	4
GENL 201	COMPUTER LITERACY	2

**16****JUNIOR YEAR (FIRST SEMESTER)**

ARCH 311	STATICS & STRENGTH OF MATERIALS	3
ARCH 442	CONSTRUCTION COST ESTIMATING	3
CMGT 301	SITE PLANNING & SURVEYING	3
ECON 212*	PRINCIPLES OF ECONOMICS II	3
MGMT 324	ORGANIZATIONAL BEHAVIOR	3
CEGR 436 or XXX	ELEMENTARY STR. DESIGN or CEGR ELECTIVE	3

**18****SUMMER**

CMGT 498	CONSTRUCTION MNG'T INTERN	3
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**SENIOR YEAR (FIRST SEMESTER)**

ARCH 420	ENVIRONMENTAL CONTROLS	3
CMGT 401	SUSTAINABLE CONST. PRACT I	3
BUAD 361	FUND. OF RISK MANAGEMENT	3
BUAD 381	LEGAL & ETHICAL ENV OF BUS.	3
HIST 350	AFRICAN DIASPORA	3

**15****FRESHMAN YEAR (SECOND SEMESTER)**

ENGL 102	ENGLISH COMPOSITION II	3
HIST102/106	WORLD HIST./US HIST. II	3
MATH 141	PRECALCULUS	4
PHYS 101	INTRO TO PHYSICS	4
PHYC XXX	PHYS. ED. ACTIVITY ELECTIVE	1

**15****SOPHOMORE YEAR (SECOND SEMESTER)**

ARCH 208	BUILDING MATERIALS	3
CMGT 201	CONSTRUCTION METHODS I	3
HUMA 202	INTRO TO HUMANITIES II	3
BIOL 101	INTRODUCTORY BIOLOGY	4
ACCT 201	PRINCIPLES OF ACCOUNTING I	3

**16****JUNIOR YEAR (SECOND SEMESTER)**

ARCH 242	CONSTRUCTION OPERATIONS	3
ARCH 312	BUILDING STRUCTURAL SYSTEMS	3
ARCH 441	PRODUCTION TECHNIQUES	3
CMGT 211	CONSTRUCTION PLAN. & SCHEDULING	3
FIN 343	MANAGERIAL FINANCE	3
BUAD 202 or MGMT XXX	BUS. LEADERSHIP SEM. or MANAGEMENT ELECTIVE	3

**18****SENIOR YEAR (SECOND SEMESTER)**

CMGT 311	CONSTRUCTION SAFETY MNG'T	3
CMGT 411	CONSTRUCTION LAW	3
CEGR 498 or CEGR 400	SP. TOPICS IN ENGR. or CIVIL ENGR. PROJECT MNG'T	3
PHIL 109	INTRO TO LOGIC	3
PHIL 220**	ETHICS AND VALUES	3

**15****TOTAL CREDIT HOURS****131**

\*BSCM Students are required to register and pass ECON 212 with a minimum grade of "C". ECON 212 fulfills the Social and Behavioral Requirement.

\*\*PHIL 220 fulfills the Humanities Elective Requirement