

## Spring 2020 Course Highlights

### AMST 7000 American Studies Scholarship

Synchronous meetings will be held via Skype on Mondays from 7:00 - 9:00 p.m.

### ARCH 1002 Architecture Studio II

This course builds and elaborates upon the skills and subjects introduced in Architecture Studio I by engaging design problems at scales larger than in the previous studio and by investigating more complex problems, including building language and elements. It culminates with a capstone design project that summarizes and measures the learning of the first year, and prepares students for the second year.

### ARCH 1241 Design Communication

This course offers lecture and practicum providing fundamentals of design communication through principles of drawing conventions and related techniques including orthographic projections, paraline drawings, and perspective construction systems to represent design ideas and built forms. This involves use of manual media, 2D image manipulation and 3D modeling using digital media. The intention of the course is to develop visual literacy through visual thinking and to develop skills to represent objects and simple buildings in both two and three-dimensions.

### ARCH 2004 Architecture Studio IV

This course continues the development and use of generative design concepts begun in Architecture Studio III with projects of increased size and scope. Building programming and basic building codes are introduced and emphasis is placed on the introductory design of materials and material systems.

### ARCH 2111 Arch Culture I: Early Civil & Medi

The Architecture Culture sequence is designed as a historical survey of Architectural history and theory. Its aim is to develop an understanding of how architecture manifests the socio-cultural conditions of an era by examining the relationship between architecture and other cultural discourses such as philosophy, aesthetics, science, religion, politics and technology. It also examines how architecture, as a cultural artifact, transforms through time in response to alterations in its surrounding cultural context. This course introduces early architectural traditions and the formulation of European traditions through the Gothic.

### ARCH 3012 Architecture Studio VI

This course is a continuation of ARCH 3011 and the integration of building technologies. Students design a medium to large-scale project within a dense urban setting with a focus on the contemporary workplace. Emphasis is placed on site context and systems and materials research in support of design intent. The first half of the semester is devoted to project design and the latter half is spent examining construction tectonics through large-scale physical models.

### ARCH 3113 Arch Culture III: Hist Emerg Nw Trad

This course explores the innate relationship between the making of architecture and architectural theory as the events of the nineteenth and twentieth centuries unfold. Nineteenth century historicism in Europe and the United States is introduced and followed by an examination of the changing relationship to history that precedes the turn of the twentieth century. This course then begins an investigation of the diverse regional and conceptual approaches to modernity, covered up to the International Style Exhibition.

### ARCH 3212 Arch Struc III Concrete Lateral

This course builds on ARCH 3211 with a focus on design and analyses of statically determinate and indeterminate concrete structure systems, mainly frames. Upon completion students would be able to apply design techniques in defining a frame system

and selecting or sizing concrete members, particularly beams and columns, walls, foundations, and slabs. Knowledge and skills are applied in a final team project that highlights a structural form employing concrete.

### **ARCH 3314 EnvTech III:Lght,Elec&Acoustic**

This course is the culmination of the environmental technology sequence. Lectures elaborate upon prior coursework and place focus upon natural and artificial lighting, electrical systems, and building acoustical design. Students will continue to explore the connection between building form and environmental design strategies to develop and enhance interior atmospheres.

### **ARCH 4014 Arch Studio VIII Urban Lab**

This course focuses on designing urban environments and aims to expand students' design skills to a larger scale than single buildings or single sites. Integrating experiential data to conventional analysis, the studio aims to teach creating humane, just, aesthetically pleasing and livable urban environments.

### **ARCH 4226 Prof PracticIII-Prac&Ethics**

This course introduces the study of professional ethics, laws governing the practice of architecture and contractual relationships. It seeks to develop a working knowledge of how the American Institute of Architects (AIA) Document Series influences the method and legality of architectural practice. It emphasizes office management, professional liability and insurance, the owner-architect agreement, the architect-consultant agreement, owner-contractor agreement, bidding procedures and conditions of the contract management.

### **CM 1000 Orientation to Construction**

An introduction to construction industry careers; an overview of construction industry sectors and the industry's impact on the economy; and discussion of the basics of the construction process. Also includes a preview of the construction degree curriculum and an overview of Southern Polytechnic policies, procedures, and resources.

### **CM 2000 Construction Graphics**

A study of the fundamentals of graphic language used by construction professionals, with an emphasis on developing skills in expressing concepts in visual form and in reading architectural and engineering construction documents.

### **CM 2210 Introduction to Structures**

The study of basic structural design and analysis. Primary aim of this course is to develop and present structural concepts, introduce structural theory, provide a sound understanding of statics and strength of materials to establish a basis for understanding structural principles as it relates to building components.

### **CM 3000 Computer App in Construction**

An introduction to microcomputers and commercial software. Students learn DOS and Windows manipulations, spreadsheets, word processing, visualization, and presentation software by actively using tutorials and help screens in a structured laboratory setting. Scheduling and estimating software are introduced.

### **CM 3040 Bldg Info Modeling App**

A course on study of building information modeling for pre-construction applications. The course will enable the students to develop and modify building information models. It includes integration of estimates and schedules with building information

models. It also prepares the students to identify conflicts caused by architectural, structural, mechanical, plumbing, and electrical systems during pre-construction stages.

### **CM 3110 Residential&LightCnstMethods**

A study of materials, techniques, and methods used in residential and light construction. Foundations, wood frame and masonry structural systems, interior and exterior finishes, residential electrical, plumbing, and mechanical systems are included. Also included are residential building code requirements.

### **CM 3170 Heavy Construction Practices**

Introduction to the various heavy and civil construction systems such as roads, bridges, sewer/water treatment facilities, and other transportation systems. Topics include: contract analysis, work breakdown, equipment selection, site logistics planning, and project scheduling, cost control, productivity and performance management, quality control, and risk management.

### **COM 3180 Mech & Elec Building Systems**

A study of mechanical and electrical system types, how they are built, and how they affect the construction project. Topics will include air conditioning, heating, plumbing, fire protection, electrical power, electrical lighting, and building control materials and systems. The analysis of current construction drawings will be integrated into each topic.

### **CM 3290 Facilities Management**

Students in this course will study the methods and techniques for managing facilities. The core consists of knowledge on process and techniques for strategic planning, estimating and budgeting, life cycle costing, and integrated decision making. Students also learn about the role and responsibilities of facility manager in different business forms and organization models. FM technology and its future is discussed and explored.

### **CM 3310 Real Estate Develop Practices**

The course provides an overview of the land development process and provides a foundation for the advanced land development courses. The course focuses on the steps in planning and carrying out the land development project and on the legal issues encountered in the land development profession. The course includes lectures, readings from the texts and closed library reserves, class discussion, problems, exercises and student presentations.

### **CM 3400 Risk & Quality Management**

This course focuses on Exposure analysis, risk management, risk transfer and the costs associated with each. The costs of safety and the lack of it is examined. Workers' compensation insurance cost is integrated into the issues of safety along with the development of a comprehensive risk management plan.

### **CM 3410 Const Quantity Surveying**

A study of techniques in the process of construction estimating, with an emphasis on development of the quantity survey. The completion of a specification takeoff and a quantity survey of commercial construction are required.

### **CM 3420 ConstEstimating&BidPrep**

The continued study of the estimating process emphasizing pricing the general contractor's work including: estimating procedures, development of direct and indirect unit costs, evaluation of subcontractor's bids, bidding strategy, and bid opening.

The completion of an estimate, bid submission, and development of a schedule of values are required. Also included is an introduction to conceptual estimating.

### **CM 3440 Heavy Estimating**

Advanced estimating techniques and bid preparation for heavy construction projects. Study of the principles used in developing cost estimates for heavy construction projects. Includes interpretation of contract documents, quantity take-off, pricing, and preparation of unit-price bid documents. Introduction and practice with takeoff software for bidding earthwork, paving, utilities, roads, and bridges.

### **CM 3500 Building Codes**

This course will provide an overview of building codes from the perspective of construction managers and superintendent. Various issues related to building codes, which must be considered by the PM/CM/superintendent, will be discussed and follow the scheduled reading assignments.

### **CM 3800 Construction Finance**

Students in this course will study the fundamentals of real estate development process. The roles and responsibilities of the private and the public sector professionals and other partners involved in the process will be investigated along with the development constraints such as land use controls, physical, environmental and off-site constraints. Students will also learn the fundamentals of property, asset, and portfolio management.

### **CM 3910 Sustainable Residential Prac**

This course emphasizes the techniques and methods of sustainable construction for the residential building industry. Students will explore green building rating systems and emerging trends for homes and neighborhood development. Topics will include performance certification techniques for sustainable sites, location & connectivity, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation, and design.

### **CM 4190 Sustainable Oper&Maint**

This course will emphasize the techniques and methods used in sustainable operations and maintenance. Importance of a collaborative team effort from owner, occupant, facility management, and maintenance providers will be integrated into the course. Influences on the Environment, society, maintenance and energy needs will be analyzed. Topics will include LEED green building operations and maintenance (Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation In Operations). MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be discussed from a sustainable operations and maintenance perspective.

### **CM 4480 Design/Build MEP Systems**

A study of the design-build delivery method applied to construction projects. The study starts with details of the process and how it differs from other project delivery methods. Topics will include building MEP systems (air-conditioning, heating, ventilation, plumbing, electrical power, electrical lighting and building control) and how they are planned and delivered in a design-build project. The analysis of current construction drawings will be integrated into the course.

### **CM 4510 Construction Scheduling**

A study of the management techniques used in controlling the progress of construction projects, including development of a commercial project schedule, as well as simulation of updating and monitoring progress using critical path methodology. Commonly used commercial software packages are introduced.

### **CM 4560 Cons Project Management**

A study of traditional, design-build and construction management delivery methods, the management of field operations and administration of the construction contracts. Contract documents, project organization, supervision, working with owners and design professionals, procurement, management of subcontractors.

### **CM 4620 Develop Process & Finance**

Students in this course will study financial feasibility and economic desirability of income producing properties. They will learn various financial feasibility analysis techniques and prepare financial pro-forma models for various stages of the development process. The concepts that will be covered are net operating income, time value of money, different forms of financing, and business entities for development process. Acquisition, development, and construction (ADC) loans will be studied and student will prepare their loan amortization schedule.

### **CM 4660 Adv Scheduling&Project Mgmt**

Course focuses on Communication, Industry Software, Target Value Design and other best Practices as they pertain to Project Management. Erosion Control Supervisor, and Work Zone Traffic Control Certification requirements are examined. Skills generally required for sound project management in a variety of management settings are studied in addition to specific management issues typically associated with construction companies.

### **CM 4710 Construction Safety**

A study of construction safety and loss control principles and practices. Topics include project security control, construction accident prevention, safety information sources, weather precautions, emergency planning, and OSHA procedures and regulations.

### **CM 4760 Const & Property Law**

A study of Construction Contract Documents and Claims. Topics include: analyses of AIA B141, A101, A201, and contractual graphic and technical documents. Other supporting construction contract documents such as bid bonds, payment and performance bonds and construction modifications are studied. The traditional tri-union construction contract formation process is examined in relation to the owner, contractor, material men, and subcontractors. Discussions regarding damages for differing and unforeseen conditions, defective workmanship, and construction delay claims are surveyed in conjunction with AAA construction arbitration rules regarding emerging construction manager contracting processes.

### **CM 4900 Capstone Project**

Simulations and case studies of events that affect the construction organization and project. Topics and event simulations will include problems typically encountered in the construction industry such as changed conditions, strikes, inconsistencies in documents, and surety assumption of the contract. Presentations by prominent industry representatives pertinent to the event being simulated are included.

### **CM 6620 Sustainable Operations & Maint**

This course will emphasize the techniques and methods used in sustainable operations and maintenance. Influences on the Environment, society, maintenance and energy needs will be analyzed. MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be discussed from a sustainable operations and maintenance perspective.

### **CM 6710 Facilities Management Practices**

Students in this course will study the methods and techniques for managing facilities. The core consists of knowledge on process and techniques for strategic planning, estimating and budgeting, life cycle costing, and integrated decision making. Students also learn about the role and responsibilities of facility manager in different business forms and organization models. FM technology and its future is discussed and explored.

### **CM 6901 Artificial Intelligence**

The course focuses on the design-build delivery method of construction projects starting with details of the process and how it differs from other project delivery methods. Topics will include building mechanical and electrical systems (A/C, heating, plumbing, electrical power, electrical lighting and building control) and how they are finalized and delivered in a design-build project. The analysis of current construction drawings also will be part of the course.

### **ES 3100 Group Exercise Leadership**

Class held in Employee Fitness Center next to the KSU Center. ALLOW EXTRA TRAVEL TIME TO and FROM class. This class is not on the main campus. Also first day check D2L to see where meeting.

### **GEOG 3315 Intro Geographic Information**

This is a hybrid course. It consists of in-class lectures, which meet every other Thursday; and online instruction and work each week.

### **GEOG 3900 Biogeography**

This is a hybrid course. It consists of 2/3 in-class meetings, and 1/3 online content. Students will produce a publishable manuscript at the end of the course.

### **JOUR 4435 Adv Investigative Rpt II**

Class will meet in the Center for Sustainable Journalism at Chastain Point, suite 310.

### **MATH 1111 College Algebra (Sections: 23, 41, 42, 43, 44, 45, 46, 47, 91, 92)**

This section of College Algebra is self-paced and technology driven. Meetings are held in a computer classroom staffed by an instructor and learning assistants. The adaptive learning software system ALEKS will be used as a teaching and testing component of the course. During scheduled class time and additional lab hours students will receive one-on-one assistance from the instructor and learning assistants when needed. In addition, targeted lectures will be conducted during some class hours. Throughout the semester students may progress at different paces and can complete course requirements before the end of the term.

### **MATH 1112 College Trigonometry (Sections: 41, 42, 91, 92)**

This section of College Trigonometry is self-paced and technology driven. Meetings are held in a computer classroom staffed by an instructor and learning assistants. The adaptive learning software system ALEKS will be used as a teaching and testing component of the course. During scheduled class time and additional lab hours students will receive one-on-one assistance from the instructor and learning assistants when needed. In addition, targeted lectures will be conducted during some class hours. Throughout the semester students may progress at different paces and can complete course requirements before the end of the term.

**MENT 4485 Media Entertmnt Studies Capstn**

All-production "moMENTum productions" section of Capstone.

**PR 4465 Public Relations Campaigns**

Agency section. By application only.

**TPS 1600 (Sections: C01, C02)**

The World of the Scholar Artist: Theatre and Performance Studies Majors

This Learning Community is designed for second semester Theatre and Performance Studies Majors. It combines the development of skills in performance storytelling, poetry, and performance art with behind the scenes experience on a theatrical production.

**TPS 2713 (Section: C02)**

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This Learning Community is designed for second semester Theatre and Performance Studies Majors. It combines the development of skills in performance storytelling, poetry, and performance art with behind the scenes experience on a theatrical production.