

# CONSTRUCTION

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## ASSOCIATE DEGREE AND DIPLOMA PROGRAMS

The associate degree and diploma programs in Construction are designed for students who wish to prepare for a career in some aspect of construction or construction supervision. Topics include laying footings and foundations, framing, roofing, interior and exterior finishing, computer-aided construction drafting, building codes, scheduling, and contracting.

## CAREER OPPORTUNITIES

Program graduates qualify for positions as general maintenance and repair workers, first-line construction trades and extraction workers, and manufactured building and mobile home installers. The Georgia Department of Labor (G-DOL) forecasts increased opportunities for construction employment in Northeast Georgia through 2016. G-DOL projects a 9.5 percent increase in employment opportunities for construction and building inspectors, 16.8 percent for construction and extraction occupations, 29.4 percent for all other construction and related workers, and 23.1 percent for construction laborers.

## PROGRAM EXPENSES

The recent reauthorization of the Higher Education Act requires all colleges and universities to notify stu-

dents and prospective students of all program costs for which they will be responsible. Students will be responsible for the following expenses:

- Quarterly tuition (\$45 per credit hour)
- Quarterly student activity fees (\$16)
- Quarterly registration fee (\$26)
- Quarterly accident insurance fee (\$4)
- Quarterly instructional and technology supply fee (\$35)
- Supply fee (Varies – See course descriptions for specific fees)
- Textbooks (Approximately \$1,750 for the associate degree program and \$1,000 for diploma program)

The expenses are based on costs in effect at the time this catalog was published. Prices are subject to change.

## ADMISSION REQUIREMENTS

Applicants must submit the following information to the Admissions Office:

- a. Completed and signed application for admission and a \$20 nonrefundable application fee;
- b. Official high school or GED transcripts and/or official college transcripts from all colleges attended in the past; and
- c. Valid COMPASS, ASSET, SAT, or ACT test scores.

## CONSTRUCTION CURRICULUM OUTLINE

*Diploma Program (Major Code: CM02)*

*Credit Required for Graduation: 88 quarter credit hours*

### General Core

EMP	1000	Interpersonal Relations and Professional Development
ENG	1010	Fundamentals of English I
MAT	1012	Foundations of Mathematics

### Credits

**13**

3

5

5

### Occupational Core

CAR	107	Site Layout, Footings, and Foundations
CAR	110	Floor Framing
CAR	111	Wall Framing
CAR	112	Ceiling and Roof Framing
CAR	114	Roof Coverings
CAR	115	Exterior Finishes and Trim
CAR	117	Interior Finishes I
CFC	100	Safety
CFC	101	Introduction to Construction
CFC	102	Professional Tool Use and Safety
CFC	103	Construction Materials
CFC	105	Construction Print Reading
SCT	100	Introduction to Microcomputers

**47**

5

3

3

6

2

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2

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3

<b>Occupational Major</b>			<b>28</b>
ACC	1101	Principles of Accounting I	6
CMT	201	Residential Estimating Review	4
CMT	202	Construction Drafting I	4
CMT	205	Residential Code Review	5
CMT	213	Computerized Construction Scheduling	4
CMT	217	Construction Contracting	5

### CONSTRUCTION CURRICULUM OUTLINE

*Associate of Applied Science Degree Program (Major Code: CM03)  
Credit Required for Graduation: 105 quarter credit hours*

			<b>Credits</b>
<b>General Education</b>			<b>30</b>
ENG	1101	Composition and Rhetoric	5
ENG	1102	Literature and Composition	5
	OR		5
HUM	1101	Introduction to Humanities	5
ENG	1105	Technical Communications	5
MAT	1111	College Algebra	5
MAT	1112	College Trigonometry	5
	OR		5
MAT	1113	Pre-Calculus	5
PSY	1101	Introduction to Psychology	5
	OR		5
ECO	2105	Principles of Macroeconomics	5
	OR		5
ECO	2106	Principles of Microeconomics	5
<b>Occupational Core</b>			<b>47</b>
CAR	107	Site Layout, Footings, and Foundations	5
CAR	110	Floor Framing	3
CAR	111	Wall Framing	3
CAR	112	Ceiling and Roof Framing	6
CAR	114	Roof Coverings	2
CAR	115	Exterior Finishes and Trim	5
CAR	117	Interior Finishes I	4
CFC	100	Safety	2
CFC	101	Introduction to Construction	2
CFC	102	Professional Tool Use and Safety	4
CFC	103	Construction Materials	3
CFC	105	Construction Print Reading	5
SCT	100	Introduction to Microcomputers	3
<b>Occupational Major</b>			<b>28</b>
ACC	1101	Principles of Accounting I	6
CMT	201	Residential Estimating Review	4
CMT	202	Construction Drafting I	4
CMT	205	Residential Code Review	5
CMT	213	Computerized Construction Scheduling	4
CMT	217	Construction Contracting	5

## ACCOUNTING

Department Code: ACC

### ACC 1101

#### Principles of Accounting I (4-4-6)

Banner Title: Principles of Accounting I

This course introduces the basic concepts of the complete accounting cycle and provides students with the necessary skills to maintain a set of books for sole proprietorships. Topics include accounting vocabulary and concepts, the accounting cycle and accounting for personal service businesses and merchandising enterprises, and cash control. Laboratory work demonstrates theory presented in class.

*Prerequisite: Diploma-level program admission*

*Offered quarterly*

## CARPENTRY

Department Code: CAR

### CAR 107

#### Site Layout, Footings and Foundations (4-3-5)

Banner Title: Site Layout/Footing/Foundation

This course introduces the concepts and practices of basic site layout, footings, and foundation construction. Students will use layout equipment for on-site laboratory practice. Topics include zoning restrictions and codes, batter board installation, builder's level, squaring methods, footings, plot plan interpretation, materials estimation, foundation types, foundation forms, edge forms, waterproofing, soil testing and excavation.

*Prerequisite: CFC 105*

*Offered Fall term*

### CAR 110

#### Floor Framing (2-3-3)

Banner Title: Floor Framing

This course introduces materials identification, materials estimation, and installation procedures of floor and sill framing members. On-site construction procedures will be emphasized. Topics include size selection of girders and joists, materials estimation, and layout and installation procedures.

*Prerequisites: CFC 101, CFC 103, CFC 105*  
*Offered Winter term*

### CAR 111

#### Wall Framing (2-3-3)

Banner Title: Wall Framing

This course provides instruction in identification, materials estimation, and framing production of wall and partition members. Instruction emphasizes the practical application of competencies. Topics include

estimation and computation procedures, rough opening layouts, construction and erection of wall members, and sheathing installation.

*Prerequisites: CFC 101, CFC 103, CFC 105*  
*Offered Winter term*

### CAR 112

#### Ceiling and Roof Framing (4-6-6)

Banner Title: Ceiling/Roof Framing

This course introduces the terminology, concepts, and procedures used in the identification, estimation, layout, and installation of ceiling and roof framing systems. Topics include the identification of ceiling systems, ceiling system materials estimation, ceiling system layout procedures, scaffolding and ladder safety, ceiling system installation procedures, roof system terminology, roof system estimation and layout, roof system installation and decking, and vent systems.

*Prerequisites: CFC 101, CFC 103, CFC 105*  
*Offered Winter term*

### CAR 114

#### Roof Coverings (1-3-2)

Banner Title: Roof Coverings

This course introduces the identification, estimation, and installation of roof covering materials. Topics include materials identification, estimation, layout procedures, installation, and safety precautions. Students must pay a \$75 supply fee when registering for this course.

*Prerequisites: CFC 101, CFC 103*

*Offered Spring term*

### CAR 115

#### Exterior Finishes and Trim (2-8-5)

Banner Title: Exterior Finishes/Trim

This course introduces materials identification, estimation, and installation procedures for exterior finish and trim materials to include window and door units. Instruction emphasizes competency development through laboratory practice. Topics include doors and windows, siding types, materials identification, materials estimation, and installation procedures.

*Prerequisites: CFC 101, CFC 103, CFC 105*  
*Offered Spring term*

### CAR 117

#### Interior Finishes I (1-9-4)

Banner Title: Interior Finishes I

This course introduces procedures for the identification, estimation, and installation of interior trim. Topics include insulation methods identification, insulation material handling, insulation application methods, thermal and sound control, wall and ceiling materials estimation, gypsum wallboard installation and finishing

procedures, wall and ceiling materials identification, paneling installation, and acoustical ceiling tile.

*Prerequisites: CFC 101, CFC 103, CFC 105*  
*Offered Spring term*

## CONSTRUCTION

Department Code: CFC

### CFC 100

#### Safety (2-0-2)

Banner Title: Safety

This course provides a review of general safety rules and practices and provides students with information about state and federal regulations including OSHA Hazard Communication Standard and Material Safety Data Sheets (MSDS). Instruction emphasizes electrical, fire, lifting, and ladder and scaffolding hazards. Topics include overview of safety rules and regulations; personal protective equipment; signs, signals, and barricades; flammable materials; electrical hazards; ladders and scaffolds; safety in trenches and excavations; and an introduction to rigging.

*Prerequisite: Provisional admission*

*Offered quarterly*

### CFC 101

#### Introduction to Construction (1-2-2)

Banner Title: Intro to Construction

This course covers the introduction to the different crafts in the building trades through an overview of the building process. The student is also introduced to the attitudes and life skills required to succeed in the construction industry. Topics include an introduction to the construction trades and the building process, workplace expectations, quality of work, professional ethical standards, proper practices, fundamentals of measurement, working in teams, learning for success, and life skills.

*Prerequisite: Provisional admission*

*Offered quarterly*

### CFC 102

#### Professional Tool Use and Safety (2-5-4)

Banner Title: Pro Tool Use/Safety

This course provides instruction in the use of professional tools for the construction trades. Instruction emphasizes the safe use of each tool covered. Topics include layout and measuring tools, sawing tools, shaping and cutting tools, fastening tools, drilling and boring tools, finishing tools, job site setup, and shop tool use. Students must pay a \$75 supply fee when registering for this course.

*Prerequisite: Program admission*

*Offered Fall term*

### **CFC 103**

#### **Construction Materials (3-0-3)**

*Banner Title: Construction Materials*

This course introduces the fundamental array of building materials used in residential and commercial construction. Topics include concrete products, masonry materials, plumbing materials, fasteners, wood products, finishing materials, manufactured products for construction, and an introduction to estimation of products and services.

*Prerequisite: Program admission*

*Offered quarterly*

### **CFC 105**

#### **Construction Print Reading Fundamentals (5-0-5)**

*Banner Title: Construction Print Reading*

This course introduces the reading and interpretation of prints and architectural drawings for all construction trades. Topics include types of plans, scales, specifications, conventions, and schedules.

*Prerequisite: Program admission*

*Offered Fall term*

## **CONSTRUCTION MANAGEMENT**

*Department Code: CMT*

### **CMT 201**

#### **Residential Estimating Review (4-0-4)**

*Banner Title: Residential Estimating*

*Review*

This course covers the complete estimating process from excavation to completed residence. Topics include the sequence of construction, materials calculation, blueprint interpretation, methods of construction, working with subcontractors, and final estimate assembly.

*Prerequisite: ACC 1101, SCT 100*

*Offered Summer term*

### **CMT 202**

#### **Construction Drafting (1-6-4)**

*Banner Title: Construction Drafting*

This course provides instruction in producing residential floor plans and elevations using computer-aided drafting and design (CAD) software. Topics include system setup and system management, software menus and basic functions, prototype drawings, and two dimensional drafting and dimensioning.

*Prerequisites: CAR 105, SCT 100*

*Offered Summer term*

### **CMT 205**

#### **Residential Code Review (5-0-5)**

*Banner Title: Residential Code Review*

This course covers building codes as they apply to typical residential applications. Topics include standard building code,

International Code Council (ICC) code, working with building inspectors, permits and inspections, and site visits.

*Prerequisite: CAR 105, SCT 100*

*Offered quarterly*

### **CMT 213**

#### **Computerized Construction Scheduling (3-2-4)**

*Banner Title: Construction Scheduling*

This course provides instruction in the use of application software for scheduling construction work. Instruction emphasizes the use of contemporary construction scheduling and management software. Topics include software overview, scheduling methods and requirements, and computerized scheduling of a simulated construction job.

*Prerequisite: CMT 204, SCT 100*

*Offered Summer term*

### **CMT 217**

#### **Construction Contracting (5-0-5)**

*Banner Title: Construction Contracting*

This course provides an in-depth study of the contractual relationship between the parties involved in building construction contracting. Topics include bonds, insurance, bidding, awarding, and subcontracting types and conditions.

*Prerequisite: CMT 201, SCT 100*

*Offered summer term*

## **ECONOMICS**

*Department Code: ECO*

### **ECO 2105**

#### **Principles of Macroeconomics (5-0-5)**

*Banner Title: Macroeconomics*

This course provides a description and analysis of macroeconomic operations in contemporary society. Students develop an understanding of macroeconomic concepts, theories, and policies. Topics include basic economic principles; macroeconomic principles, theories, and policies; money and banking; and the United States economy in perspective.

*Prerequisites: ENG 099 with a grade of C\* or better or placement by diagnostic testing, MAT 097 with a grade of C\* or better and MAT 099 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

### **ECO 2106**

#### **Principles of Microeconomics (5-0-5)**

*Banner Title: Microeconomics*

This course provides a description and analysis of microeconomic operations in contemporary society. Students develop

an understanding of microeconomic concepts and theories as they apply to daily life. Topics include basic economic principles; theories of the corporate firm; the market system; market structures, pricing, and government regulations; resource markets; and international trade.

*Prerequisites: ENG 099 with a grade of C\* or better or placement by diagnostic testing, MAT 097 with a grade of C\* or better and MAT 099 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

## **EMPLOYABILITY SKILLS**

*Department Code: EMP*

### **EMP 1000**

#### **Interpersonal Relations and Professional Development (3-0-3)**

*Banner Title: Interpersonal Relations*

Students study human relations and professional development in today's changing world in order to prepare themselves for living and working in a complex society. Topics include human relations skills, job acquisition skills and communications, job retention skills, job advancement skills, and professional image skills.

*Prerequisite: Provisional admission*

*Offered quarterly*

## **ENGLISH**

*Department Code: ENG*

### **ENG 1010**

#### **Fundamentals of English I (5-0-5)**

*Banner Title: Fundamentals of English I*

This course emphasizes the development and improvement of written and oral communication abilities. Topics include analysis of writing techniques, applied grammar and writing skills, editing and proofreading skills, research skills, and oral presentation skills.

*Prerequisites: ENG 097 with a grade of C\* or better and RDG 097 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

### **ENG 1101**

#### **Composition and Rhetoric (5-0-5)**

*Banner Title: Composition and Rhetoric*

Students practice various modes of writing ranging from exposition to argumentation and persuasion. The course also explores the analysis of literature and articles about issues in the humanities and in society. The course includes a review of standard grammatical and stylistic usage in proofreading and editing. An introduction to library

resources lays the foundation for research. Topics covered in the course include writing analysis and practice, revision, and research. Students write a research paper using library resources and using a formatting and documentation style appropriate to the purpose and audience.

*Prerequisites: ENG 099 with a grade of C\* or better and RDG 098 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

### **ENG 1102 Literature and Composition (5-0-5)**

*Banner Title: Literature and Composition*  
This course emphasizes the ability of students to read literature analytically and meaningfully and to communicate clearly. Students analyze the form and content of literature in historical and philosophical contexts. Topics include reading and analysis of fiction, poetry, and drama; research, and writing about literature.

*Prerequisite: ENG 1101 with a grade of C or better*

*Offered quarterly*

### **ENG 1105 Technical Communications (5-0-5)**

*Banner Title: Technical Communications*  
This course emphasizes practical knowledge of technical communications techniques, procedures, and reporting formats used in industry and business. Topics include reference use and research, device and process description, formal technical report writing, business correspondence, and oral technical report presentation.

*Prerequisite: ENG 1101 with a grade of C or better*

*Offered quarterly*

## **HUMANITIES**

*Department Code: HUM*

### **HUM 1101 Introduction to Humanities (5-0-5)**

*Banner Title: Introduction to Humanities*  
This course explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, and literature. Instructors present the humanities as a source of subjective insights for the understanding of people and society. Topics include historical and cultural developments and

contributions of the humanities. Students will complete a research project as part of this course.

*Prerequisite: ENG 1101 with a grade of C or better*

*Offered Fall, Winter, and Spring terms*

## **MATHEMATICS**

*Department Code: MAT*

### **MAT 1012 Foundations of Mathematics (5-0-5)**

*Banner Title: Foundations of Mathematics*

This course emphasizes the mathematical skills that can be applied to the solution of occupational and technical problems. Topics include properties of numbers, fractions, decimals, percents, ratios and proportions, measurement and conversions, formula manipulation, technical applications, and basic statistics.

*Prerequisite: MAT 097 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

### **MAT 1111 College Algebra (5-0-5)**

*Banner Title: College Algebra*

This course emphasizes techniques of problem solving using algebraic concepts. Topics include fundamental concepts of algebra, equations and inequalities, functions and graphs, systems of equations, analytic geometry, and optional topics, including sequences, series, and probability.

*Prerequisite: MAT 097 with a grade of C\* or better and/or MAT 099 with a grade of C\* or better or placement by diagnostic testing*

*Offered Quarterly*

### **MAT 1112 College Trigonometry (5-0-5)**

*Banner Title: College Trigonometry*

This course emphasizes techniques of problem solving using trigonometric concepts. Topics include trigonometric functions and properties of trigonometric functions, vectors and triangles, inverse of trigonometric functions and graphing, logarithmic and exponential functions, and complex numbers.

*Prerequisite: MAT 1111 with a grade of C or better*

*Offered Summer term*

### **MAT 1113 Pre-Calculus (5-0-5)**

*Banner Title: Pre-Calculus*

This course prepares students for calculus. Topics include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions, and their graphs. Applications include simple maximum and minimum problems and exponential growth and decay.

*Prerequisites: MAT 1111 with a grade of C or better*

*Offered Fall, Winter, and Spring terms*

## **PSYCHOLOGY**

*Department Code: PSY*

### **PSY 1101 Introduction to Psychology (5-0-5)**

*Banner Title: Introduction to Psychology*  
This course emphasizes the basics of psychology. Topics include the science of psychology; social environments; life stages; physiology and behavior; personality; emotions and motives; conflicts, stress, and anxiety; abnormal behavior; and perception, learning, and intelligence.

*Prerequisites: ENG 099 with a grade of C\* or better and RDG 098 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

## **SCIENCE AND TECHNOLOGY**

*Department Code: SCT*

### **SCT 100 Introduction to Microcomputers (1-4-3)**

*Banner Title: Intro to Microcomputers*  
This course introduces the fundamental concepts and operations necessary to use microcomputers. Course content emphasizes basic functions and familiarity with computer use. Topics include computer terminology and an introduction to the Windows environment, networking, word processing, spreadsheets, presentation graphics, and databases.

*Prerequisite: Provisional admission*

*Offered quarterly*