CONSTRUCTION/CARPENTRY (CAR)

CAR 126 (3 credit hours)
Intro to Construction
Provides a discussion of the different employment opportunities of carpentry related careers within the construction industry including different construction systems and methods as well as basic management of a construction project. Emphasizes the different building materials and the correct use of hand and power tools. Includes shop and job-site safety. Lecture: 3 credits (45 contact hours).
Attributes: Technical
Components: LEC: Lecture

CAR 127 (1 credit hours)
Intro to Construction - Lab
Permits students to research different employment opportunities of carpentry-related careers. Introduces the student to different construction systems and methods as well as practice basic management methods of a construction project. Permits student to become familiar with common building materials and the correct use of hand and power tools. Implements shop and job-site safety standards. Laboratory: 1 credit (30 contact hours).
Co-requisite: CAR 126.
Attributes: Technical
Components: LAB: Laboratory

CAR 140 (3 credit hours)
Surveying & Foundations
Enables the student to become familiar with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as discussion on the use of the builders level, transit and laser levels. Covers the characteristics of concrete, excavation procedures, forming methods and material estimating. Lecture: 3 credits (45 contact hours).
Attributes: Technical
Components: LEC: Lecture

CAR 141 (2 credit hours)
Surveying & Foundations-Lab
Familiarizes the student with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as the application of the builders level, transit and laser levels. Covers the application of concrete procedures, excavation procedures, forming methods and material estimating. Laboratory: 2 credits (60 contact hours).
Co-requisite: CAR 140.
Attributes: Technical
Components: LAB: Laboratory

CAR 150 (3 credit hours)
Concrete Formwork
Introduces the carpentry student to heavy and commercial concrete form construction methods. Covers information about properties of concrete as a building material, rigging, concrete wall form systems, above grade floor systems, vertical piers and column form systems, on grade curb forms, horizontal beam forms, fire proofing encasement forms, stair forms, bridge and deck forms. Lecture: 3 credits (45 contact hours).
Attributes: Technical
Components: LEC: Lecture

CAR 151 (2 credit hours)
Concrete Formwork-Lab
Introduces the carpentry student to heavy and commercial concrete form construction methods. Provides for the application of information about the properties of concrete, rigging, concrete wall form systems, above grade floor systems, vertical piers and column form systems, on grade curb forms, horizontal beam forms, fire proofing encasement forms, bridge and deck forms. Familiarizes student with OSHA construction standards on Concrete and Shoring, and Excavations. Laboratory: 2 credits (60 contact hours).
Co-requisite: CAR 150.
Attributes: Technical
Components: LAB: Laboratory

CAR 190 (3 credit hours)
Light Frame Construction I
Emphasizes methods of floor, wall and stair framing, layout and construction. Provides discussion of industry safety standards and building codes. Lecture: 3 credits (45 contact hours).
Attributes: Technical
Components: LEC: Lecture

CAR 191 (2 credit hours)
Light Frame Const. I-Lab
Permits the student to practice floor, wall, and stair framing layout and construction techniques including the implementation of building codes and industry safety standards during lab or job-site practice. Laboratory: 2 credits (60 contact hours).
Co-requisite: CAR 190.
Attributes: Technical
Components: LAB: Laboratory

CAR 196 (3 credit hours)
Light Frame Construction II
Covers basic roof design and combination roof designs used in the construction industry including the layout and installation practices that will be used to fabricate and install ceiling and roof framing systems. Provides discussion of job-site safety practice, scaffold and ladder safety that deals with roof construction, and building code requirements for roof construction and material estimating. Lecture: 3 credits (45 contact hours).
Attributes: Technical
Components: LEC: Lecture

CAR 197 (2 credit hours)
Light Frame Const. II-Lab
Covers basic roof design and construction methods used in the construction industry including layout, cut and install ceiling joists, rafters, and roof decking materials. Includes layout and installation practices for roof truss systems, job-site safety practice, scaffold and ladder safety that deals with roof construction and building code requirements for roof construction and material estimating. Laboratory: 2 credits (60 contact hours).
Co-requisite: CAR 196.
Attributes: Technical
Components: LAB: Laboratory

CAR 198 (1-6 credit hours)
Special Topics in Carpentry
Includes various Construction Carpentry Technology topics, issues and trends. Topics may vary semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Lecture: 1-6 credits (15-90 contact hours). Laboratory: 1-6 credits (30-180 contact hours).
Pre-requisite: Consent of Instructor.
Attributes: Technical
Components: LEC: Lecture

CAR 200 (3 credit hours)
Light Frame Construction III
Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 3 credits (45 contact hours).
Attributes: Course Also Offered in Modules, Technical
Components: LEC: Lecture

CAR 201 (2 credit hours)
Light Frame Const. III-Lab
Provides an opportunity for students to perform basic applications of the concepts of interior and exterior finish methods for light frame construction. Laboratory: 2 credits (60 contact hours).
Co-requisite: CAR 200.
Attributes: Course Also Offered in Modules, Technical
Components: LAB: Laboratory

CAR 240 (3 credit hours)
Light Frame Construction IV
Covers the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops. Provides discussion of special finish trim techniques including finish stair construction and specialty millwork. Lecture: 3 credits (45 contact hours).
Attributes: Technical
Components: LEC: Lecture

CAR 241 (2 credit hours)
Light Frame Const. IV-Lab
Allows the student to practice the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops including special finish trim techniques of finish stair construction and specialty millwork. Laboratory: 2 credits (60 contact hours).
Co-requisite: CAR 240.
Attributes: Technical
Components: LAB: Laboratory

CAR 270 (3 credit hours)
Green Building
Integrates principles of green building technologies and methods of sustainable construction. Emphasizes green materials used in the construction of buildings along with alternative and/or renewable energy systems. Introduces Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard (NGBS) rating systems for the certification process of green buildings. Lecture: 3.0 credits (45 contact hours).
Attributes: Technical
Components: LEC: Lecture

CAR 298 (2 credit hours)
Practicum in Construction
Refines the techniques and skills taught in the previous carpentry courses. Provides supervised on-the-job experience related to the students educational and career training objectives. Practicum can be performed on the college campus with work assignments supervised by your program coordinator. Consists of a minimum of 150 contact hours. Two credit hours will be granted after completion. Students participating in the Practicum do not receive compensation as in the co-op program. Practicum: 2 credits (150 contact hours).
Pre-requisite: ISX 100 and/or Permission from program Instructor.
Attributes: Technical
Components: PCM: Practicum

CAR 299 (2 credit hours)
Co-op in Construction
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the students educational and career training objectives. The program will consist of a minimum of 150 contact hours. 2.0 credit hours will be granted after completion. Co-op: 2 credits (150 contact hours).
Pre-requisite: ISX 100 and/or permission from program Instructor.
Attributes: Technical
Components: COP: Co-op

CAR 2001 (1 credit hours)
Light Frame Construction III - Interior
Presents the concepts of interior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours).
Components: LEC: Lecture

CAR 2002 (1 credit hours)
Light Frame Construction III - Exterior
Presents the concepts of exterior finish materials and methods of installation. Lecture: 1.0 credits (15 contact hours).
Components: LEC: Lecture

CAR 2011 (1 credit hours)
Light Frame Construction III Lab Interior
Provides an opportunity for students to perform basic applications of the concepts of interior finish methods for light frame construction. Co-requisite: CAR 2001. Laboratory: 1.0 credits (30 contact hours).
Co-requisite: CAR 2001, Pre-requisite OR CAR 2001.
Components: LAB: Laboratory

CAR 2012 (1 credit hours)
Light Frame Construction III Lab Exterior
Provides an opportunity for students to perform basic applications of the concepts of exterior finish methods for light frame construction. Co-requisite: CAR 2002. Laboratory: 1.0 credits (30 contact hours).
Co-requisite: CAR 2002, Pre-requisite OR CAR 2002.
Components: LAB: Laboratory