Division	Degree	Course(s)	Title	Required/Elective	Certificate Description & Course(s) Pertaining to Sustainability Outcome/Objective	Grads 14	Grads 15	Grads 16	Grads 3yr
Technology	Construction Management Technology Certificate				The construction management certificate is designed to address the management training needs of supervisors in the construction industry. Necessary management skills include construction methods, safety, estimating and management; personnel supervision; business management; and financial and data management. Construction management practices are directed toward those encountered by small- to medium-sized contractors.	4	3	1	8
Technology	Construction Management Technology Certificate	CET 105	Construction Methods	Required	This course introduces the student to the terms, methods, procedures, sequences of operation, and types of construction and planning in civil and building construction.				
Technology	Construction Management Technology Certificate	DRAF 129	Interpreting Arch. Drawing	Required	Drafting courses underwent a department-wide sustainability incorporation process. Students discuss materials and the ways that good design can reduce materials use.				
Technology	Construction Management Technology AAS				The construction management technology degree prepares individuals to manage, coordinate, and supervise the construction process from concept development through project completion on timely and economic bases. Topics include construction processes and techniques; construction contracting; organization and scheduling; applicable codes and regulations; cost estimating; building information modeling (BIM); personnel management and labor relations; business skills; site safety; and sustainable building fundamentals.	4	13	6	23
Technology	Construction Management Technology AAS	CET 105	Construction Methods	Required	This course introduces the student to the terms, methods, procedures, sequences of operation, and types of construction and planning in civil and building construction.				
Technology	Construction Management Technology AAS	CET 160	Green Building Fundamentals	Required	This course introduces the student to sustainable design and green building practices used in the construction industry. The goal of the course is to improve the energy and environmental performance of buildings through a better understanding of standard practices used by industry professionals, as well as, to provide students preparation for the Leadership in Energy and Environmental Design (LEED) Professional Accreditation Exam. Course content will focus on sustainable practices as prescribed in the LEED Green Building Rating System.				
Technology	Construction Management Technology AAS	CET 205	Advanced Construction Methods	Required	This course explores various building materials and how they are assembled during the construction process. Topics include wood, brick masonry, steel, concrete, and sustainable construction. Emphasis is placed on field construction techniques over building materials, which is presented in the introductory construction methods course.				
Technology	Construction Management Technology AAS	CET 260	Advanced Construction Management	Required	This course builds on the introductory construction management course. The emphasis is on using sustainability to safely and efficiently manage a commercial construction job. Topics include earthmoving and heavy equipment; concrete, masonry, and steel construction; and construction process management. By building with the environment in mind, we can produce buildings that use our limited resources efficiently and provide a healthier environment for the occupants.				
Technology	Computer-Aided Drafting and Design Technology AAS				Drafting technicians are engineering communication specialists who apply mathematics, computer applications and manual skills to develop specifications and drawings for the manufacturing and construction of virtually everything made in the world. JCCC's drafting technology program offers students up-to-date equipment in facilities located in the Industrial Training Center on the JCCC campus. In addition, the program offers departmental specialty courses. The program provides students with the skills necessary to produce detailed shop drawings, land plats, erection drawings and designs for manufacturing, building, production, commercial building and site construction as well as detailed drawings and designs of components, assemblies and systems used in manufactured products.	7	11	7	25
Technology	Computer-Aided Drafting and Design Technology AAS	DRAF 129	Interpreting Arch. Drawing	Required	This beginning course will explain the fundamentals of interpreting (reading) architectural drawings. Upon successful completion of this course, students should be able to understand plan and elevation views, sections, details, schedules, specifications, symbols and abbreviations found on most residential and commercial construction drawings.				
Technology	Computer-Aided Drafting and Design Technology AAS	DRAF 222	Mechanical Design and Drafting	Required	Students successfully completing this course should be able to draw details and assembly views of mechanical parts. The types of parts discussed in this class include castings, sheet metal pieces, jigs and fixtures, and gauges. Important concepts include dimensioning, form and position tolerancing, coordinate tolerancing, and calculations related to material allowances and manufacturing. Students will use the Machinery's Handbook and other technical publications to research and design projects. Project assignments will be completed using computer-aided drafting (CAD) software.				
Technology	Electrical Technology, AAS				The certificate in Electrical Technology is designed to give students the basic skills to gain entry level employment in the residential and commercial electrical trade. As a requirement for completion, students will sit for their local licensure exam. After attainment of the certificate, students can complete advanced studies towards the Electrical Technology Associate of Applied Science. This program prepares students to enter the electrical trade in electrical estimating, industrial controls and electrical design.	8	12	6	26
Technology	Electrical Technology, AAS	ELTE 150	Solar Electrical Systems	Required	Solar Electric Systems presents the key components of photovoltaic (PV) conversion systems to produce electricity from sunlight. Solar module types and properties, balance of system components, stand-alone and utility interface, energy management and economics for a variety of PV applications are studied.				
Business	Hospitality Management - Chef Apprenticeship AAS				The hospitality management program at JCCC is a comprehensive study of the food service and public lodging industries. The program is accredited by the American Culinary Federation Educational Institute Accrediting Commission. The career program features formal course work along with the opportunity to actually practice such skills as baking, menu planning, food purchasing, beverage control and food preparation. After job placement, you join the American Culinary Federation Educational Institute for registered apprentice membership. Likewise, you register with the Department of Labor and will be officially indentured to supervising chefs and the sponsoring American Culinary Federation affiliate chapter for 6,000 hours. The program consists of 75 credit hours and leads to an associate of applied science degree.	27	25	18	70
Business	Hospitality Management - Chef Apprenticeship AAS	HMGT 121	Perpsectives of Hospitality Management	Required	This introductory course is designed to provide students with current information on topics relevant to career exploration, employment and operational specifics of the various segments of the hospitality industry. The course includes exploration of the tourism, lodging, food and beverage and related industries, along with the operational characteristics unique to each and the critical concepts of service management. The identification of current events and trends will be included along with the evaluation of impact on the hospitality industry. This course also identifies and explores career opportunities and includes the professional profiles and job search materials directly related to the hospitality industry.				

Business	Hospitality Management - Chef Apprenticeship AAS	HMGT 123	Professional Cooking I	Required	This is the first of two courses in professional cooking methods for students enrolled in hospitality management programs. Upon completion of this course, the student should be able to demonstrate skills in basic cooking methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to safely operate common food service equipment used in commercial kitchens.				
Business	Hospitality Management - Chef Apprenticeship AAS	HMGT 230	Professional Cooking II	Required	This is the second of two courses in professional cooking methods for students enrolled in hospitality management programs. Upon completion of this course, the student should be able to demonstrate advanced level skills in cooking methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to safely operate advanced food service equipment used in commercial kitchens. This course consists of lecture, demonstration and participation in food preparation.				
Business	Hospitality Management - Chef Apprenticeship AAS	DIET 151	Nutrition and Meal Planning	Required	This course covers the food groups and their function and nutritional values as applied to meal planning. Assessment of personal dietary intake will also be explored. In addition to the current trends in nutrition this course covers energy balance, sustainability and nutrition in the life span. This is a required course for the food and beverage management, chef apprenticeship and dietary manager programs.				
Business	Hospitality Management - Chef Apprenticeship AAS	HMGT 220	American Regional Cuisine	Required	This course introduces the student to regional American cooking from nine regional culinary traditions and two specialty traditions within American cuisine. Students will study the cuisine of New England; the Mid-Atlantic states; the Deep South; Florida and the Caribbean; Cajun and Creole; the Central Plains and Rocky Mountain states; Tex-Mex and the American Southwest; California and Hawaii; the Pacific Northwest, as well as vegetarian cuisine and kosher dietary laws. Upon completion of this course, the student should be able to demonstrate skills in cooking and presenting classic American dishes in their traditional forms within a restaurant setting.				
Business	Hospitality Management - Dietary Manager Certificate				Upon completion of this certificate, the students will be eligible to take the credentialing exam to become a certified dietary Manager. This certificate is accredited by the Association of Nutrition & Foodservice Professionals. Certified dietary managers supervise and oversee dietetic services in long-term care facilities, hospitals, schools, correctional institutions and other non-commercial foodservice settings. They are trained to understand the basic nutritional needs of their clientele. Dietary managers work in partnerships with registered dietitians. The dietary manager is responsible for purchasing, sorting, preparing, and delivering balanced nutritional meals. They provide menu variety while maintaining nutritional requirements within cost/profit objectives. The curriculum is separated into four major classroom components: nutrition and medical nutrition therapy, management of foodservices, human resource management, sanitation and food safety.	14	21	11	46
Business	Hospitality Management - Dietary Manager Certificate	DIET 251	Nutrition Applications	Required	This course explores the application of nutrition in four areas of emphasis: clinical, community, research and food science. This course requires a minimum of 25 hours of coordinated field experience.				
Business	Hospitality Management - Dietary Manager Certificate	DIET 151	Nutrition and Meal Planning	Required	This course covers the food groups and their function and nutritional values as applied to meal planning. Assessment of personal dietary intake will also be explored. In addition to the current trends in nutrition this course covers energy balance, sustainability and nutrition in the life span. This is a required course for the food and beverage management, chef apprenticeship and dietary manager programs.				
Business	Hospitality Management - Food and Beverage Management AAS				The JCCC food and beverage management program prepares graduates to enter restaurant, club or food service management as a trainee or assistant manager. Courses in the 68-credit-hour program include supervisory management, hospitality accounting, hospitality law, food management, design techniques and advanced hospitality management. In addition, students learn food preparation skills through courses in basic and intermediate food preparation, menu planning, purchasing, nutrition and beverage control.		1		1
Business	Hospitality Management - Food and Beverage Management AAS	HMGT 121	Perpsectives of Hospitality Management	Required	This introductory course is designed to provide students with current information on topics relevant to career exploration, employment and operational specifics of the various segments of the hospitality industry. The course includes exploration of the tourism, lodging, food and beverage and related industries, along with the operational characteristics unique to each and the critical concepts of service management. The identification of current events and trends will be included along with the evaluation of impact on the hospitality industry. This course also identifies and explores career opportunities and includes the professional profiles and job search materials directly related to the hospitality industry.				
Business	Hospitality Management - Food and Beverage Management AAS	HMGT 123	Professional Cooking I	Required	This is the first of two courses in professional cooking methods for students enrolled in hospitality management programs. Upon completion of this course, the student should be able to demonstrate skills in basic cooking methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to safely operate common food service equipment used in commercial kitchens.				
Business	Hospitality Management - Food and Beverage Management AAS	HMGT 230	Professional Cooking II	Required	This is the second of two courses in professional cooking methods for students enrolled in hospitality management programs. Upon completion of this course, the student should be able to demonstrate advanced level skills in cooking methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to safely operate advanced food service equipment used in commercial kitchens. This course consists of lecture, demonstration and participation in food preparation.				
Business	Hospitality Management - Food and Beverage Management AAS	DIET 151	Nutrition and Meal Planning	Required	This course explores the application of nutrition in four areas of emphasis: clinical, community, research and food science. This course requires a minimum of 25 hours of coordinated field experience.				
Business	Hospitality Management - Food and Beverage Management AAS	HMGT 221	Design and Facilities Management	Required	This course includes detailed information about food service design that covers layout, design and equipment specifications. In addition, facilities operations will be discussed regarding electrical, water and transportation systems; refrigeration; waste disposal; energy management; and HVAC. Preventive maintenance will be emphasized.				
Business	Hospitality Management - Food and Beverage Management AAS	HMGT 126	Food Management	Required	This course offers an overview of restaurant management practices used in the hospitality industry. Emphasis will be on demonstrating the components of menu planning and the styles of food service used for various occasions -- buffet service and French, Russian and American service. The student will participate in the operation of the campus restaurant, including food preparation, service, sales promotion, purchasing and costing.				

Business	Hospitality Management - Hotel and Lodging Management AAS				The JCCC hotel and lodging management program prepares the graduate to enter hotel and lodging management, usually as a trainee or department supervisor. Courses in supervisory management, hotel accounting, hotel sales and marketing, and advanced hospitality management provide a comprehensive management background. In addition the students learn basic skills through courses in housekeeping, front office management, basic and intermediate food preparation, and beverage control.	14	15	13	42
Business	Hospitality Management - Hotel and Lodging Management AAS	HMGT 121	Perpsectives of Hospitality Management		This introductory course is designed to provide students with current information on topics relevant to career exploration, employment and operational specifics of the various segments of the hospitality industry. The course includes exploration of the tourism, lodging, food and beverage and related industries, along with the operational characteristics unique to each and the critical concepts of service management. The identification of current events and trends will be included along with the evaluation of impact on the hospitality industry. This course also identifies and explores career opportunities and includes the professional profiles and job search materials directly related to the hospitality industry.				
Business	Hospitality Management - Hotel and Lodging Management AAS	HMGT 123	Professional Cooking I		This is the first of two courses in professional cooking methods for students enrolled in hospitality management programs. Upon completion of this course, the student should be able to demonstrate skills in basic cooking methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to safely operate common food service equipment used in commercial kitchens.				
Business	Interior Design AAS				Interior Design: Marketing and Management AAS prepares students for careers in the interior design industry and provides coursework required to transfer for a Bachelor's degree program under an existing transfer agreement.	12	18	14	44
Business	Interior Design AAS	ITMD 121	Interior Design I	Required	This course is an introduction to interior design. Upon successful completion of this course, the student should recognize the significance of interior design, apply the elements and principles of design and color theory, use the basis of the design process to solve a design problem and present design information visually and verbally in a professional manner. Finally identify the significance of sustainability in the built environment.				
Business	Interior Design AAS	ITMD 125	Interior Textiles	Required	This course is an examination of textiles used in the built environment. Upon successful completion of this course, the student should be able to differentiate fibers, yarns and textiles according to their specific characteristics and to select appropriate textiles for applications. Specific course content includes properties and characteristics of natural and man-made fibers; yarn construction, textile construction methods; and various finishing processes. Furthermore, students will study the sustainability of these textile elements. The course will concentrate on textiles designed for interior built environment applications.				
Business	Interior Design AAS	ITMD 129	Design Communication	Required	This is an intermediate course focusing on artistic presentation techniques of 2D and 3D. Manual and digital drawing methods used in the interior design profession will be explored. Upon successful completion of this course, the student should demonstrate skill in conceptual and technical processes to convey visual information. Color palette use, light source and shading, surface and detail texturing and entourage will be used to successfully illustrate design solutions. Additionally the student will organize and demonstrate visual and verbal presentations to communicate a design solution.				
Business	Interior Design AAS	ITMD 132	Materials and Resources	Required	This course is an intermediate course focusing on the materials and resources used in the built environment. The student will evaluate the quality of materials; demonstrate the ability to locate and use product information resources; identify manufacturing and construction techniques used in products; recognize the sustainability and environmental impact of materials; use correct terminology to describe the various types of materials; and compare the design, use, durability and cost of materials.				
Business	Interior Design AAS	ITMD 185	Construction Methods, Building Systems, and Regulations for the Interior Designer	Required	This course will focus on construction methods, building systems and regulations that affect the interior designer. Upon successful completion of this course, the student should be able to identify and articulate various construction assemblies, recognize building systems vs. interior systems and define the impact on the built environment, and understand regulations affecting the built environment. Furthermore, students will understand construction documents related to these portions of the built environment. Additionally, the student will be able to define and use vocabulary related to the built environment as well as identify and explain the importance of sustainable components in these portions of the built environment.				
Business	Interior Design AAS	ITMD 202	Interior Design II	Required	This course focuses on the design process. Upon successful completion of this course, the student should be able to define and apply the design process from programming through design development to effectively solve a design problem. The design solutions will also incorporate anthropometrics, proxemics and universal design elements. The course will introduce students to varying psychological dynamics and how they will affect the built environment. Furthermore, the student will incorporate National Kitchen and Bath (NKBA) standards and sustainable concepts as required for the design solution. Design solutions will be presented in verbal and visual formats appropriate for interior design.				
Business	Interior Design AAS	ITMD 215	Environmental Systems for the Interior Designer	Required	This is an intermediate course focusing on environmental systems such as: lighting design, acoustical design, thermal design and indoor air quality as it effects the interior designer's decisions in the built environment. Upon successful completion of this course, the student should be able to define and use vocabulary relating to environmental systems, recognize and explain environmental systems application and technology, and understand environmental systems impact on human behavior. The student should be able to identify and describe proper fixtures and equipment for lighting environmental systems and understand proper designs for specific applications. Furthermore, students will learn the significant impact sustainable practices have on environmental systems.				
Business	Interior Design AAS	ITMD 219	Issues in Interior Design	Required	This course is designed to educate the student on the current issues that affect the interior design profession such as environmental design, green/sustainable design and universal design, etc. These topics may vary based on current industry concerns. Upon successful completion of this course, the student should be able to identify, explain and analyze ramifications to the industry that arise from the economy, politics and social culture.				
Business	Interior Design AAS	ITMD 271	Budgeting and Estimating	Required	Upon successful completion of this course, the student will demonstrate an ability to measure accurately for project components, apply cost parameters to project components, effectively prepare material and labor cost estimate analysis, understand cost controls such as value engineering, and evaluate sustainable material and labor cost. Students will use interior design business procedures and documents to complete project analysis.				

Business	Interior Design AAS	ITMD 273	Practices and Procedures	Required	Upon successful completion of this course, the student will be able to use proper interior design industry terminology, appropriate business forms and contracts, define the types of business legal structures and solve business organizational and ethical problems.				
Business	Interior Design AAS	ECON 230	ECON 230	Required	Upon successful completion of this course, the student should be able to use economic terminology and principles to explain and discuss basic macroeconomic concepts, including supply of and demand for products, national income determination, money and banking, and monetary and fiscal policy. All students in ECON 230 also complete a unit on environmental economics.				
Business	Interior Design AAS	DRAF 164	Architectural Drafting/Residential Interior Design	Required	Upon completion of this course the student should be able to interpret and draft residential architectural drawings and utilize industry references and resources. Drawings studied include floor plans, elevations, sections, reflected ceiling plans and schedules. Students will draft on a variety of relevant materials. Drafting courses underwent a department-wide sustainability incorporation process. Students discuss materials and the ways that good design can reduce materials use.				
Business	Interior Design Sales Certificate				The interior design sales certificate is a program designed for students employed in or seeking positions in the retail or wholesale interior design market.		1	3	
Business	Interior Design Sales Certificate	ITMD 121	Interior Design I	Required	This course is an introduction to interior design. Upon successful completion of this course, the student should recognize the significance of interior design, apply the elements and principles of design and color theory, use the basis of the design process to solve a design problem and present design information visually and verbally in a professional manner. Finally identify the significance of sustainability in the built environment.				
Business	Interior Design Sales Certificate	ITMD 125	Interior Textiles	Required	This course is an examination of textiles used in the built environment. Upon successful completion of this course, the student should be able to differentiate fibers, yarns and textiles according to their specific characteristics and to select appropriate textiles for applications. Specific course content includes properties and characteristics of natural and man-made fibers; yarn construction, textile construction methods; and various finishing processes. Furthermore, students will study the sustainability of these textile elements. The course will concentrate on textiles designed for interior built environment applications.				
Business	Interior Design Sales Certificate	ITMD 132	Materials and Resources	Required	This course is an intermediate course focusing on the materials and resources used in the built environment. The student will evaluate the quality of materials; demonstrate the ability to locate and use product information resources; identify manufacturing and construction techniques used in products; recognize the sustainability and environmental impact of materials; use correct terminology to describe the various types of materials; and compare the design, use, durability and cost of materials.				
Business	Interior Design Sales Certificate	ITMD 271	Budgeting and Estimating	Required	Upon successful completion of this course, the student will demonstrate an ability to measure accurately for project components, apply cost parameters to project components, effectively prepare material and labor cost estimate analysis, understand cost controls such as value engineering, and evaluate sustainable material and labor cost. Students will use interior design business procedures and documents to complete project analysis.				
Business	Interior Design Sales Certificate	DRAF 164	Architectural Drafting/Residential Interior Design	Required	Upon completion of this course the student should be able to interpret and draft residential architectural drawings and utilize industry references and resources. Drawings studied include floor plans, elevations, sections, reflected ceiling plans and schedules. Students will draft on a variety of relevant materials. Drafting courses underwent a department-wide sustainability incorporation process. Students discuss materials and the ways that good design can reduce materials use.				
Business	Interior Design Marketing and Management AAS				Interior Design: Marketing and Management AAS prepares students for careers in the interior design industry and provides coursework required to transfer for a Bachelor's degree program under an existing transfer agreement. The JCCC Interior Design Program provides relevant curriculum with experiential learning that emphasizes the student's ability to think creatively, critically and collaboratively in preparation of entering professional employment. Theory and application dovetail in the classroom and community, providing exposure to business and industry standards, professional practices and progressive design opportunities through cultivated industry relationships.	6	4	10	14
Business	Interior Design Marketing and Management AAS	ITMD 121	Interior Design I	Required	This course is an introduction to interior design. Upon successful completion of this course, the student should recognize the significance of interior design, apply the elements and principles of design and color theory, use the basis of the design process to solve a design problem and present design information visually and verbally in a professional manner. Finally identify the significance of sustainability in the built environment.				
Business	Interior Design Marketing and Management AAS	ITMD 125	Interior Textiles	Required	This course is an examination of textiles used in the built environment. Upon successful completion of this course, the student should be able to differentiate fibers, yarns and textiles according to their specific characteristics and to select appropriate textiles for applications. Specific course content includes properties and characteristics of natural and man-made fibers; yarn construction, textile construction methods; and various finishing processes. Furthermore, students will study the sustainability of these textile elements. The course will concentrate on textiles designed for interior built environment applications.				
Business	Interior Design Marketing and Management AAS	ITMD 132	Materials and Resources	Required	This course is an intermediate course focusing on the materials and resources used in the built environment. The student will evaluate the quality of materials; demonstrate the ability to locate and use product information resources; identify manufacturing and construction techniques used in products; recognize the sustainability and environmental impact of materials; use correct terminology to describe the various types of materials; and compare the design, use, durability and cost of materials.				
Business	Interior Design Marketing and Management AAS	ITMD 185	Construction Methods, Building Systems, and Regulations for the Interior Designer	Required	This course will focus on construction methods, building systems and regulations that affect the interior designer. Upon successful completion of this course, the student should be able to identify and articulate various construction assemblies, recognize building systems vs. interior systems and define the impact on the built environment, and understand regulations affecting the built environment. Furthermore, students will understand construction documents related to these portions of the built environment. Additionally, the student will be able to define and use vocabulary related to the built environment as well as identify and explain the importance of sustainable components in these portions of the built environment.				

Business	Interior Design Marketing and Management AAS	ITMD 202	Interior Design II	Required	This course focuses on the design process. Upon successful completion of this course, the student should be able to define and apply the design process from programming through design development to effectively solve a design problem. The design solutions will also incorporate anthropometrics, proxemics and universal design elements. The course will introduce students to varying psychological dynamics and how they will affect the built environment. Furthermore, the student will incorporate National Kitchen and Bath (NKBA) standards and sustainable concepts as required for the design solution. Design solutions will be presented in verbal and visual formats appropriate for interior design.				
Business	Interior Design Marketing and Management AAS	ITMD 271	Budgeting and Estimating	Required	Upon successful completion of this course, the student will demonstrate an ability to measure accurately for project components, apply cost parameters to project components, effectively prepare material and labor cost estimate analysis, understand cost controls such as value engineering, and evaluate sustainable material and labor cost. Students will use interior design business procedures and documents to complete project analysis.				
Business	Interior Design Marketing and Management AAS	ITMD 129	Design Communication	Required	This is an intermediate course focusing on artistic presentation techniques of 2D and 3D. Manual and digital drawing methods used in the interior design profession will be explored. Upon successful completion of this course, the student should demonstrate skill in conceptual and technical processes to convey visual information. Color palette use, light source and shading, surface and detail texturing and entourage will be used to successfully illustrate design solutions. Additionally the student will organize and demonstrate visual and verbal presentations to communicate a design solution.				
Business	Interior Design Marketing and Management AAS	ITMD 215	Environmental Systems for the Interior Designer	Required	This is an intermediate course focusing on environmental systems such as: lighting design, acoustical design, thermal design and indoor air quality as it effects the interior designer's decisions in the built environment. Upon successful completion of this course, the student should be able to define and use vocabulary relating to environmental systems, recognize and explain environmental systems application and technology, and understand environmental systems impact on human behavior. The student should be able to identify and describe proper fixtures and equipment for lighting environmental systems and understand proper designs for specific applications. Furthermore, students will learn the significant impact sustainable practices have on environmental systems.				
Business	Interior Design Marketing and Management AAS	ITMD 219	Issues in Interior Design	Required	This course is designed to educate the student on the current issues that affect the interior design profession such as environmental design, green/sustainable design and universal design, etc. These topics may vary based on current industry concerns. Upon successful completion of this course, the student should be able to identify, explain and analyze ramifications to the industry that arise from the economy, politics and social culture.				
Business	Interior Design Marketing and Management AAS	ITMD 273	Practices and Procedures	Required	Upon successful completion of this course, the student will be able to use proper interior design industry terminology, appropriate business forms and contracts, define the types of business legal structures and solve business organizational and ethical problems.				
Business	Interior Design Kitchen and Bath AAS				Interior Design: Kitchen and Bath AAS degree graduates are qualified to take the Associate Kitchen and Bath Design certification exam, AKBD, after completing one year of work experience.	6	4	10	20
Business	Interior Design Kitchen and Bath AAS	ITMD 121	Interior Design I	Required	This course is an introduction to interior design. Upon successful completion of this course, the student should recognize the significance of interior design, apply the elements and principles of design and color theory, use the basis of the design process to solve a design problem and present design information visually and verbally in a professional manner. Finally identify the significance of sustainability in the built environment.				
Business	Interior Design Kitchen and Bath AAS	DRAF 164	Architectural Drafting/Residential Interior Design	Required	Upon completion of this course the student should be able to interpret and draft residential architectural drawings and utilize industry references and resources. Drawings studied include floor plans, elevations, sections, reflected ceiling plans and schedules. Students will draft on a variety of relevant materials. Drafting courses underwent a department-wide sustainability incorporation process. Students discuss materials and the ways that good design can reduce materials use.				
Business	Interior Design Kitchen and Bath AAS	ITMD 132	Materials and Resources	Required	This course is an intermediate course focusing on the materials and resources used in the built environment. The student will evaluate the quality of materials; demonstrate the ability to locate and use product information resources; identify manufacturing and construction techniques used in products; recognize the sustainability and environmental impact of materials; use correct terminology to describe the various types of materials; and compare the design, use, durability and cost of materials.				
Business	Interior Design Kitchen and Bath AAS	ITMD 125	Interior Textiles	Required	This course is an examination of textiles used in the built environment. Upon successful completion of this course, the student should be able to differentiate fibers, yarns and textiles according to their specific characteristics and to select appropriate textiles for applications. Specific course content includes properties and characteristics of natural and man-made fibers; yarn construction, textile construction methods; and various finishing processes. Furthermore, students will study the sustainability of these textile elements. The course will concentrate on textiles designed for interior built environment applications.				
Business	Interior Design Kitchen and Bath AAS	ITMD 202	Interior Design II	Required	This course focuses on the design process. Upon successful completion of this course, the student should be able to define and apply the design process from programming through design development to effectively solve a design problem. The design solutions will also incorporate anthropometrics, proxemics and universal design elements. The course will introduce students to varying psychological dynamics and how they will affect the built environment. Furthermore, the student will incorporate National Kitchen and Bath (NKBA) standards and sustainable concepts as required for the design solution. Design solutions will be presented in verbal and visual formats appropriate for interior design.				
Business	Interior Design Kitchen and Bath AAS	ITMD 271	Budgeting and Estimating	Required	Upon successful completion of this course, the student will demonstrate an ability to measure accurately for project components, apply cost parameters to project components, effectively prepare material and labor cost estimate analysis, understand cost controls such as value engineering, and evaluate sustainable material and labor cost. Students will use interior design business procedures and documents to complete project analysis.				

Business	Interior Design Kitchen and Bath AAS	ITMD 185	Construction Methods, Building Systems, and Regulations for the Interior Designer	Required	This course will focus on construction methods, building systems and regulations that affect the interior designer. Upon successful completion of this course, the student should be able to identify and articulate various construction assemblies, recognize building systems vs. interior systems and define the impact on the built environment, and understand regulations affecting the built environment. Furthermore, students will understand construction documents related to these portions of the built environment. Additionally, the student will be able to define and use vocabulary related to the built environment as well as identify and explain the importance of sustainable components in these portions of the built environment.		
Business	Interior Design Kitchen and Bath AAS	ITMD 129	Design Communication	Required	This is an intermediate course focusing on artistic presentation techniques of 2D and 3D. Manual and digital drawing methods used in the interior design profession will be explored. Upon successful completion of this course, the student should demonstrate skill in conceptual and technical processes to convey visual information. Color palette use, light source and shading, surface and detail texturing and entourage will be used to successfully illustrate design solutions. Additionally the student will organize and demonstrate visual and verbal presentations to communicate a design solution.		
Business	Interior Design Kitchen and Bath AAS	ITMD 215	Environmental Systems for the Interior Designer	Required	This is an intermediate course focusing on environmental systems such as: lighting design, acoustical design, thermal design and indoor air quality as it effects the interior designer's decisions in the built environment. Upon successful completion of this course, the student should be able to define and use vocabulary relating to environmental systems, recognize and explain environmental systems application and technology, and understand environmental systems impact on human behavior. The student should be able to identify and describe proper fixtures and equipment for lighting environmental systems and understand proper designs for specific applications. Furthermore, students will learn the significant impact sustainable practices have on environmental systems.		
Business	Interior Design Kitchen and Bath AAS	ITMD 222	Interior Design III	Required	This is an advanced course focusing on applying the design process to solve a design problem. The design process will be practiced from beginning to end in order to formulate a complete design solution. Upon successful completion of this course, the student should be able to proficiently apply the design process in layout and specification formats. In addition, the student will present aesthetic and technical information as required by the design problem. Students will also incorporate the use of sustainable guidelines to solve a design problem. The student will also demonstrate an understanding of business practices.		
Business	Interior Design Kitchen and Bath AAS	ITMD 233	Kitchen and Bath Basics	Required	This is an introductory course in kitchen and bath design and planning. Upon successful completion of this course, the student should be able to define and use proper vocabulary related to kitchen and bath design and construction, identify current design trends in the kitchen and bath industry, understand proper NKBA kitchen and bath access standards and planning guidelines, identify cabinetry styles, types and construction methods, possess basic understanding of metric and imperial measurements, and a basic knowledge of technologies used in kitchen and bath planning, and finally understand the basic business management forms for the kitchen and bath industry. Students will also analyze sustainability in the kitchen and bath industry.		
Business	Interior Design Kitchen and Bath AAS	ITMD 273	Practices and Procedures	Required	Upon successful completion of this course, the student will be able to use proper interior design industry terminology, appropriate business forms and contracts, define the types of business legal structures and solve business organizational and ethical problems.		
Business	Interior Design Kitchen and Bath AAS	ITMD 235	Kitchen and Bath Advanced	Required	This is an advanced course in kitchen and bath design, planning and management. Upon successful completion of this course, the student will be able to produce drawings using appropriate graphic and presentation standards, develop written and verbal design statement to substantiate projects, demonstrate product, material, style, type and construction method knowledge, communicate and recommended installation procedures, understand selection, specification and ordering of products as it relates to cost, energy, safety and design. Students will also analyze sustainability within a kitchen and bath project.		
Business	Interior Staging Certificate				The interior staging certificate is a 12-credit hour program designed for students seeking basic knowledge of interior design. The required courses are already included in the approved curriculum of the interior design program.	8	10
Business	Interior Staging Certificate	ITMD 121	Interior Design I	Required	This course is an introduction to interior design. Upon successful completion of this course, the student should recognize the significance of interior design, apply the elements and principles of design and color theory, use the basis of the design process to solve a design problem and present design information visually and verbally in a professional manner. Finally identify the significance of sustainability in the built environment.		
Business	Interior Staging Certificate	ITMD 125	Interior Textiles	Required	This course is an examination of textiles used in the built environment. Upon successful completion of this course, the student should be able to differentiate fibers, yarns and textiles according to their specific characteristics and to select appropriate textiles for applications. Specific course content includes properties and characteristics of natural and man-made fibers; yarn construction, textile construction methods; and various finishing processes. Furthermore, students will study the sustainability of these textile elements. The course will concentrate on textiles designed for interior built environment applications.		
Business	Interior Staging Certificate	ITMD 132	Materials and Resources	Required	This course is an intermediate course focusing on the materials and resources used in the built environment. The student will evaluate the quality of materials; demonstrate the ability to locate and use product information resources; identify manufacturing and construction techniques used in products; recognize the sustainability and environmental impact of materials; use correct terminology to describe the various types of materials; and compare the design, use, durability and cost of materials.		
Sciences	Sustainable Agriculture				A one-year certificate in Sustainable Agriculture, Market Farming introduces basic principles and hands on experience in production and direct marketing of locally grown food. Experiential and classroom learning will focus on principles of environmental, economic, and social sustainability emphasized through practicum courses, numerous field trips, guest lectures, and engagement with local farming and food communities. Students will be prepared for beginning occupations in sustainable market farming, ecological farm management, local food policy or advocacy organizations, produce management, school garden management, or related fields.	3	3

Sciences	Sustainable Agriculture	SAG 245	Principles of Sustainable Market Farming	Required	This course is designed to familiarize Market Farmers with sustainable methods of production of crops grown in the Market Farming industry. The course will prepare students in the basic principles of soils; pest and weed management; varieties of plants to grow; establishment, growth, harvesting and post-harvesting of crops; marketing methods; and business management. Students will become familiar with principles of sustainability and the importance of good record keeping.				
Sciences	Sustainable Agriculture	SAG 272	Sustainable Agriculture Fall Practicum	Required	Through practical experience complemented by lectures and discussions, students will gain exposure to a broad range of tasks facing the market farmer during the fall and early winter seasons. This includes production and marketing of summer crops, planning, and production of fall crops in high tunnels and open field, and marketing these fall crops. Topics include production planning, planting, integrated crop management, harvest and postharvest practices, marketing through various channels, tools and equipment, soil fertility management, and record keeping. Practicum activities will integrate with other courses in this market farming certificate program. Students will learn both conventional and organic production techniques. Entrepreneurship will be emphasized throughout.				
Sciences	Sustainable Agriculture	HMGT 167	Local Food Production	Required	Upon successful completion of this course, the student should be able to analyze and explain the basic cooking methods, recipe conversion and professional food preparation and handling of local food products. Additionally, the student should be able to safely operate common food service equipment used in commercial kitchens. It will provide students with practical methods of application involved with safe handling and production of post-harvest local food products.				
Sciences	Sustainable Agriculture	HORT 260	Horticulture Soils	Required	This course covers soil components as well as the physical, chemical and biological properties of soils that affect plant growth. Emphasis will be placed on horticultural substrates and urban soils and their applications.				
Business	Business Administration AAS				Focusing on the development of decision-making, organizational and supervisory skills, the program offers professional courses in management, marketing, economics, accounting, finance, communications, business law and data processing. These are combined with a core of general education courses to ensure that students receive a well-rounded curriculum.	47	39	39	125
Business	Business Administration AAS	BIO 135	Environmental Science	Required	Environmental Science seeks to describe problems and solutions associated with human use of natural resources. Students will study the major physical and biological processes that govern the complex interactions in natural ecosystems. Major course topics include human population growth, resource use and pollution. Practical solutions aimed at sustainability will be identified and examined.				
Business	Business Administration AAS	PHIL 138	Business Ethics	Required	This course applies classical and contemporary theories of morality to problems, questions and dilemmas arising in business. Using the major concepts and principles of deontological, consequentialist and perfectionist theories, it examines and analyzes cases involving such areas as employer/employee relations, corporate responsibility, truth telling in business and workplace diversity. Emphasis is on the development of moral reasoning skills that allow for meaningful analysis and evaluation of moral situations.				
Business	Business Administration AAS	ECON 230	Principles of Macroeconomics	Required	Upon successful completion of this course, the student should be able to use economic terminology and principles to explain and discuss basic macroeconomic concepts, including supply of and demand for products, national income determination, money and banking, and monetary and fiscal policy. All students in ECON 230 also complete a unit on environmental economics.				
Sciences	Biotechnology AAS				The biotechnology associate of science degree program will prepare students who wish to pursue a baccalaureate degree in the biological sciences. Upon completion of this 63-65-hour degree, students will be able to find entry-level or higher positions in the diverse field of biotechnology. Along with basic and more advanced science courses, students will take specialized courses in subjects such as laboratory safety and biotechnology methods.	6	11	8	25
Sciences	Biotechnology AAS	BIOT 160	Introduction to Biotechnology	Required	This course is an introduction to biotechnology, including career exploration, history and applications of DNA/RNA technology, molecular biology, and bioethics. Topics include cloning, DNA, antibodies, gene therapy, plant biotechnology, the human genome project, DNA fingerprinting, genetic testing, diverse products made through biotechnology, and the ethical implications of this technology. All BIOT 160 sections include a section on sustainable practices.				
Sciences	Biotechnology AAS	BIOL 124	Oceanus: Essentials of Oceanography	Optional b/t BIOL 124, BIOL 134, or BIOL 155	This course for beginning students focuses on the marine environment as a unique feature of the planet earth and investigates areas of intense scientific and public concern: the pervasiveness of the ocean and its effect on the earth's weather, its stunning physical size and diversity of contained life forms, its contributions to the physical and historical development of man, its impact on geopolitical and economic matters, and the impact of oceanic pollutants and the potential exploitation of marine resources.				
Sciences	Biotechnology AAS	BIOL 134	Principles of Sustainability	Optional b/t BIOL 124, BIOL 134, or BIOL 155	Principles of Sustainability introduces students to the social, economic and environmental dimensions of sustainability and sustainable development. The course will critically examine the use of sustainable principles to guide decision making and problem solving in personal, campus, community and global contexts. Students will engage in a variety of individual, group, campus and community activities and collaborate with campus and community offices and agencies in order to identify, assess and address local sustainability needs. Students will be required to present their projects at a public sustainability forum.				
Sciences	Biotechnology AAS	BIOL 155	Bioethics	Optional b/t BIOL 124, BIOL 134, or BIOL 155	This course introduces students to the scientific, ethical and legal issues relevant to the discipline of biology and those raised by the rapid development of new biological technologies. Students will examine the major theories of ethics, including deontology, utilitarianism, and select others. Topics include: beginning of life issues such as contraception, abortion, and nontraditional methods of human reproduction; end of life issues such as advance healthcare directives and physician-assisted suicide; and other issues such as experimentation on human and animal subjects and human environmental impacts.				
Health Care Professions and Wellness	Nursing - Registered Nurse, AAS				Students receive clinical practice in a variety of settings, including hospitals, long-term care facilities and clinics. Experiences are offered in maternal child nursing, pediatric nursing, operating room nursing, medical-surgical nursing, mental health nursing and gerontology.	68	66	64	198

Health Care Professions and Wellness	Nursing	NURS 100	Concepts of Nursing Care Foundations	Required after 2015	Students will engage in a variety of learning activities to build nursing knowledge and skills necessary to care for patients who present with diverse characteristics across the healthcare continuum. The course establishes a foundation of concepts that students will use and expand upon in subsequent courses. These concepts will serve as a foundation for building the necessary skills to meet program outcomes including clinical judgment, facilitator of learning, advocacy, caring practices, collaboration, systems thinking, response to diversity, and clinical inquiry. All students complete a unit on sustainability in healthcare.				
Health Care Professions and Wellness	Nursing	NURS 124	Fundamentals of Nursing	Required prior to 2015	This course is the first in a sequence of five nursing courses. Students will acquire nursing knowledge and skills necessary to care for patients across the health care continuum. Students will use a critical thinking approach to apply fundamental principles of nursing to patient care. In the clinical component, students will apply theoretical content and therapeutic interventions to patients with health alterations. Course instruction will occur in the classroom, online, in the health resource center and healthcare agencies. All students complete a unit on sustainability in healthcare.				
Health Care Professions and Wellness	Nursing	NURS 225	Concepts of Nursing Care: Complex Patient Care Management	Required after 2015	The course will enable students to care for adult patients experiencing complex multisystem health alterations. Students will apply critical thinking and organizational skills to appropriately manage a group of patients in a healthcare setting. This course integrates the knowledge and skills acquired in the previous four nursing courses that facilitate student transition to professional nursing practice. Students will become increasingly confident and proficient in achieving the following program outcomes: clinical judgment, facilitator of learning, advocacy, caring practices, collaboration, systems thinking, response to diversity and clinical inquiry. Students will apply theoretical content and therapeutic interventions to patients in the clinical component of the course, which will include fragile and highly vulnerable patients and families. All students complete a unit on sustainability in healthcare.				
Health Care Professions and Wellness	Nursing	NURS 232	Complex Care Management	Required prior to 2015	This course is the last in a sequence of five nursing courses that will enable students to care for patients experiencing complex multi-system health alterations across the health care continuum. Students will use a critical thinking approach to apply concepts of management to a group of patients in a health care setting. This course integrates knowledge and skills acquired in the previous four courses and facilitates student transition to professional nursing practice. In the clinical component, students will apply theoretical content and therapeutic nursing interventions to a group of patients/families with complex, acute and chronic health alterations. All students complete a unit on sustainability in healthcare.				
Technology	Civil Engineering Technology AAS				The construction management technology degree prepares individuals to manage, coordinate, and supervise the construction process from concept development through project completion on timely and economic bases. Topics include construction processes and techniques; construction contracting; organization and scheduling; applicable codes and regulations; cost estimating; building information modeling (BIM); personnel management and labor relations; business skills; site safety; and sustainable building fundamentals.	3	2	1	6
Technology	Civil Engineering Technology AAS	CET 105	Construction Methods	Required prior to 2016	This course introduces the student to the terms, methods, procedures, sequences of operation, and types of construction and planning in civil and building construction. This course is typically offered the first half of each semester.				
Technology	Civil Engineering Technology AAS	CET 160	Green Building Fundamentals	Required prior to 2017	This course introduces the student to sustainable design and green building practices used in the construction industry. The goal of the course is to improve the energy and environmental performance of buildings through a better understanding of standard practices used by industry professionals, as well as, to provide students preparation for the Leadership in Energy and Environmental Design (LEED) Professional Accreditation Exam. Course content will focus on sustainable practices as prescribed in the LEED Green Building Rating System.				
Technology	Civil Engineering Technology AAS	CET 205	Advanced Construction Methods	Required prior to 2018	This course explores various building materials and how they are assembled during the construction process. Topics include wood, brick masonry, steel, concrete, and sustainable construction. Emphasis is placed on field construction techniques over building materials, which is presented in the introductory construction methods course. This course is offered in the spring semester.				
Technology	Civil Engineering Technology AAS	CET 229	Advanced Construction Management	Required prior to 2019	This course builds on the introductory construction management course. The emphasis is on using sustainability to safely and efficiently manage a commercial construction job. Topics include earthmoving and heavy equipment; concrete, masonry, and steel construction; and construction process management. By building with the environment in mind, we can produce buildings that use our limited resources efficiently and provide a healthier environment for the occupants.				
Technology	Railroad Operations AAS				The JCCC associate's degree program in Railroad Operations prepares the students with the foundational information and skills needed to serve in the railway industry. The program will focus on the safe and proper procedures needing to be followed in the following career fields: carman, machinists, welders, conductors, or signal maintainers.	6	7	12	25
Technology	Railroad Operations AAS	RRT 165	Railroad Safety, Quality, and Environment	Required	This course covers the importance of safety, quality, personal health and environmental awareness to the railroad industry and emphasizes the basic tools and techniques for improving these conditions on the job. Upon successful completion of this course, students should be able to define and explain the need for improved safety, quality, health and environmental awareness; describe their basic principles; explain the elements of successful programs; and apply these elements to typical tasks on the job.				