

# Learning Outcomes

Student Learning Outcomes are program-specific statements created by program faculty that detail what students should know and be able to do upon completion of the program. If outcomes are not listed, contact the program coordinator. **For each program, students will:**

## Division 1 {I}

### Humanities and Education

#### Animation and Motion Graphics

1. Build on a strong foundation in drawing and design to develop narrative experiences that demonstrate their understanding of pacing, timing, typography, aesthetics and composition.
2. Create effective visual communication by researching, analyzing, generating ideas, developing story and character, storyboarding, prototyping, sound-editing, scripting, user testing and evaluating outcomes.
3. Explore narrative and other information structures for organizing content in interactive media in order to be responsive to technological and social requirements of their audience.
4. Synthesize their abilities in drawing, design, analysis, art history, and technology and apply this skill-set to creating and evaluating time-based design.
5. Demonstrate experimentation, self-reliance and cooperative learning in mastering tools and technologies central to professional practice, as needed to create their visual design.
6. Develop competencies in communication and presentation necessary to engage in professional practice and to advance their careers.

#### Art/Fine Arts

1. Demonstrate foundational skills in drawing, two-dimensional, and three-dimensional studies appropriate for advanced study in the fine arts.
2. Demonstrate a broad knowledge of the History of Art.
3. Use the skills and vocabulary necessary to successfully evaluate and critique works of art.
4. Compile a portfolio of individual works of art sufficient for transfer to a four-year institution.

#### Graphic Design

1. Construct visual responses to a wide range of design problems, demonstrating their understanding of hierarchy, typography, aesthetics and composition.
2. Synthesize their abilities in drawing, design, analysis, art history, and technology and apply this skill-set to creating and evaluating visual design.
3. Solve communication problems by identifying the problem, researching, analyzing, generating solutions, prototyping, user testing and evaluating outcomes.
4. Demonstrate their ability to engage in collaboration, and to work through process-intensive interdisciplinary projects focusing on current events and social issues.
5. Demonstrate experimentation, self-reliance and cooperative learning in mastering tools and technologies central to professional practice, as needed to solve their design problems.
6. Develop competencies in communication and presentation necessary to engage in professional practice and to advance their careers.

#### Art, Web Design & Media Arts

1. Construct visual responses to a wide range of design problems, demonstrating their understanding of hierarchy, typography, aesthetics and composition.
2. Demonstrate their knowledge of the processes involved in creating user-centered communication and environments, including researching, using scenarios and personas, analyzing, generating solutions, storyboarding, user testing and evaluating outcomes.
3. Explore narrative and other information structures for organizing content in interactive media in order to be responsive to technological and social requirements of their audience.
4. Synthesize their abilities in drawing, design, analysis, art history, and technology and apply this skill-set to creating and evaluating visual design.
5. Demonstrate experimentation, self-reliance and cooperative learning in mastering tools and technologies central to professional practice, as needed to solve their design problems.
6. Develop competencies in communication and presentation necessary to engage in professional practice and to advance their careers.

#### Communication

1. Explain fundamental theoretical concepts related to human communication.
2. Apply fundamental theoretical concepts to specific contexts to help achieve effective communication.
3. Identify key figures and events related to the development of major mass media and emerging new media.
4. Explain the potential effects of media on an increasingly diverse society.
5. Demonstrate oral, written and mediated communication skills.
6. Explain ethical issues related to interpersonal, intercultural, group, organizational and public communication and create strategies to help address some of those issues.
7. Research a communication-related career that matches their skill set and/or interests in this rapidly-changing field.

#### Deaf Studies, Deaf Studies - C-Print™

1. Engage in ASL conversations with native and non-native users.
2. Demonstrate cultural competency in the Deaf-World.
3. Promote Deaf ways of being, thinking and knowing.
4. Apply knowledge of American Sign Language, Deaf culture, Deaf people, Deaf history and contemporary issues to new learning situations, social or workplace settings and/or activism.
5. Demonstrate beginning C-Print™ knowledge and skills necessary for immediate entry into the C-Print™ workforce.

#### Deaf Studies, Deaf Studies - Early Childhood Education

1. Engage in ASL conversations with native and non-native users.
2. Demonstrate cultural competency in the Deaf-World.
3. Promote Deaf ways of being, thinking and knowing.
4. Apply knowledge of American Sign Language, Deaf culture, Deaf people, Deaf history and contemporary issues to new learning situations, social or workplace settings and/or activism.
5. Demonstrate beginning Early Childhood Ed knowledge and skills necessary for transfer or entry level position in workforce.

#### Deaf Studies, Deaf Studies - Human Services

1. Engage in ASL conversations with native and non-native users.
2. Demonstrate cultural competency in the Deaf-World.
3. Promote Deaf ways of being, thinking and knowing.
4. Apply knowledge of American Sign Language, Deaf culture, Deaf people, Deaf history and contemporary issues to new learning situations, social or workplace settings and/or activism.
5. Demonstrate beginning Human Services knowledge and skills necessary for transfer or entry level position in the workforce.

#### Deaf Studies, Interpreter

1. Engage in ASL conversations with native and non-native users.
2. Demonstrate cultural competency in the Deaf-World.
3. Promote Deaf ways of being, thinking and knowing.
4. Apply knowledge of American Sign Language, Deaf culture, Deaf people, Deaf history and contemporary issues to new learning situations, social or workplace settings and/or activism.
5. Demonstrate beginning Interpreter knowledge and skills necessary for transfer.

#### Deaf Studies Transfer

1. Engage in ASL conversations with native and non-native users.
2. Demonstrate cultural competency in the Deaf-World.
3. Promote Deaf ways of being, thinking and knowing.
4. Apply knowledge of American Sign Language, Deaf culture, Deaf people, Deaf history and contemporary issues to new learning situations, social or workplace settings and/or activism.

#### Early Childhood Education

1. Demonstrate ability to work professionally and ethically as a teacher of young children (including school age) of families of diverse backgrounds.
2. Plan and implement developmentally appropriate learning activities for all children.
3. Implement effective written, oral, verbal and non-verbal communication with children, peer, and other colleagues.

#### Early Childhood Education, Early Childhood Education - Direct Transfer

1. Apply basic principles of child development and learning in children (Preschool through Grade 2) in the role of intern at a participating elementary school.
2. Implement effective communication skills with young children, teachers, faculty supervisors, peer, and other personnel.
3. Utilize and integrate documentation skills as applied to environment and observation of children.
4. Demonstrate self-reflective skills in becoming an educator of young children.

#### Elementary Education

1. Demonstrate core competencies in reading and writing.
2. Apply child development and learning theory to actual classroom practice.
3. Identify, use, and appropriately document professional resources.
4. Practice self-reflection as a future teacher.

#### General Studies

1. Create accurate written communications applying correct sentence structure, grammar, word usage, spelling, and punctuation.
2. Communicate clearly and effectively utilizing written and verbal communication techniques.
3. Identify, understand, and engage in mathematics as well as make well-founded mathematical judgments as a constructive, concerned, reflective citizen.
4. Use historical factual information to understand the current world, and develop an ability to consider issues from a global perspective.
5. Understand how individuals interact among groups; and develop an understanding of the beliefs, values, traditions, and practices of people from other cultures.
6. Analyze critically science-based issues in contemporary society.

#### General Studies, MassTransfer

1. Create accurate written communications applying correct sentence structure, grammar, word usage, spelling, and punctuation.
2. Communicate clearly and effectively utilizing written and verbal communication techniques.
3. Identify, understand, and engage in mathematics as well as make well-founded mathematical judgments as a constructive, concerned, reflective citizen.
4. Use historical factual information to understand the current world, and develop an ability to consider issues from a global perspective.
5. Understand how individuals interact among groups; and develop an understanding of the beliefs, values, traditions, and practices of people from other cultures.
6. Analyze critically science-based issues in contemporary society.

#### General Studies, Vocational Technical Education (see page 78 for program coordinator)

#### Liberal Arts & Sciences, Humanities

1. Transfer to a wide variety of public and private baccalaureate programs with junior status.
2. Identify and pursue their interests in literature, foreign language or other humanities majors.
3. Understand the basic content and methodology of science, social sciences, mathematics, humanities and the arts.
4. Acquire skills to be productive and lifelong learners, including abilities in oral and written communication, information literacy, critical and creative thinking, and technical competency.
5. Develop qualities of an ethical individual and responsible citizen, including a sensitivity to and respect for cultural diversity.

## Liberal Arts & Sciences, Professional Option

1. Transfer to a wide variety of public and private baccalaureate programs with junior status.
2. Identify and pursue their interests in a specific liberal arts and science major.
3. Understand the basic content and methodology of science, social sciences, mathematics, humanities and the arts.
4. Acquire skills to be productive and lifelong learners, including abilities in oral and written communication, information literacy, critical and creative thinking, and technical competency.
5. Develop qualities of an ethical individual and responsible citizen, including a sensitivity to and respect for cultural diversity.

## Liberal Arts & Sciences, Theatre

1. Explain all aspects of theater production
2. Analyze and interpret plays from the director's perspective
3. Describe the contribution of performers, director, writer, and audience to the historical development of theater and drama
4. Practice the collaborative teamwork required for successful theatrical productions
5. Perform as actors in theatrical stage productions
6. Create both individual and group performances
7. Practice acting, vocal, and movement techniques
8. Analyze and interpret plays from a performer's perspective

## Division 2 {II}

### Behavioral and Social Sciences

#### Criminal Justice

1. Explain the principles, theories, and practices of the Criminal Justice System.
2. Explain the importance of ethics and ethical behavior as they pertain to the administration of justice.
3. Apply important state, federal, and United States Supreme Court decisions to the administration of justice.
4. Practice effective oral and written communication as they pertain to the administration of justice.
5. Locate and critically analyze information from both academic and professional sources.

#### Criminal Justice Transfer

1. Explain the principles, theories, and practices of the Criminal Justice system.
2. Explain the importance of ethics and ethical behavior as they pertain to the administration of justice.
3. Apply important state, federal, and United States Supreme Court decisions to the administration of justice.
4. Practice effective oral and written communication as it pertain to the administration of justice.
5. Locate and critically analyze information from both academic and professional sources.

#### Culinary Arts, Baking and Pastry

1. Research and develop a complete bakery products menu to accompany a multi-course meal, both individually and cooperatively.
2. Pass the ServSafe national certification exam and maintain current certification thru graduation.
3. Create a Personal Portfolio that documents recipes, menus, and photos of their work.
4. Prepare, to acceptable industry standards, a variety bread, pastry and decorative items, in a safe and sanitary manner, in a variety of bakeshop settings.

#### Culinary Arts

1. Research and develop a complete menu for a multi-course meal, both individually and cooperatively.
2. Pass the TIPS and the ServSafe national certification exams and maintain current certification thru graduation.
3. Create a Personal Portfolio that documents recipes, menus, and photos of their work.
4. Prepare foods in a safe and sanitary manner, to acceptable industry standards, in a variety of kitchen settings.
5. Demonstrate, to acceptable industry standards, the ability to work in a variety of positions in the "front of the house."
6. Apply principles of nutrition in achieving food service and dietary goals.

#### Human Services

1. Describe the current state of the American social welfare system and its significant historical antecedents.
2. Critically examine and explain their personal values and perceptions of various disadvantaged and/or underserved populations.

3. Practice and critique effective helping skills that form the foundation of a successful helping relationship.
4. Integrate classroom-based academic knowledge with practical, real-world applications in a supervised agency internship.
5. Continually build and improve students' oral and written communication skills as they relate to developing successful helping relationships.

#### Office Administration, Legal Administrative Assistant

1. Keyboard at an average minimum rate of 40 words per minute based on the average of five 5-minute timings with no more than five errors while using correct keyboarding technique.
2. Demonstrate proofreading and text editing skills to include formatting, spelling, confusing words, punctuation, grammar, numbers, capitalization, possessives, and clear/concise writing.
3. Explain the use of the Microsoft Office suite of programs and other legal specialty software in law office management and in the production of legal materials.
4. Prepare a variety of court and non-court legal documents from hard copy or voice recording using the most appropriate software.
5. Explain the role and importance of ethical standards for attorneys and legal office professionals and sanctions for violations.
6. Demonstrate the ability to perform the basic duties of a legal administrative assistant/legal secretary.

## Division 3 {III}

### Business and Information Management

#### Business Administration, Accounting

1. Analyze, calculate, interpret, and report financial information accurately and in a timely manner.
2. Demonstrate proficiency in both manual and automated accounting systems.
3. Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
4. Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
5. Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
6. Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
7. Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
8. Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
9. Operate in teams and/or matrix organizational settings.
10. Utilize business and financial software.
11. Demonstrate leadership in a wide variety of organizations.
12. Develop a professional growth plan for lifelong learning.

#### Business Administration

1. Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
2. Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
3. Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
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10. Develop a professional growth plan for lifelong learning.

#### Business Administration, Casino Operations and Gaming Services

1. Describe how table games are played and the importance they have on revenue and profits.
2. Describe the social implications of gaming for individuals and communities.

3. Explain the factors involved in loss prevention.
4. Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
5. Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
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#### Business Administration, Entrepreneurship

1. Describe the components of a resource management program.
2. Explain the policy considerations necessary for effective personnel practices.
3. Describe procurement functions and the responsibilities of purchasing personnel.
4. Explain the characteristics of a successful new business enterprise.
5. Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
6. Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
7. Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
8. Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
9. Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
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11. Operate in teams and/or matrix organizational settings.
12. Utilize business and financial software.
13. Demonstrate leadership in a wide variety of organizations.
14. Develop a professional growth plan for lifelong learning.

#### Business Administration, Financial Services - Banking

1. Describe the components of banking operations.
2. Explain the fundamental legal issues of real estate lending.
3. Describe the fundamental operations of commercial banking.
4. Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
5. Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
6. Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
7. Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
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10. Operate in teams and/or matrix organizational settings.
11. Utilize business and financial software.
12. Demonstrate leadership in a wide variety of organizations.
13. Develop a professional growth plan for lifelong learning.

#### Business Administration, Financial Services - Financial Management

1. Describe federal taxation formats, policies, and procedures for individuals and corporations.
2. Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.

- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
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- Operate in teams and/or matrix organizational settings.
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- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Business Administration, Financial Services - Real Estate and Insurance

- Describe types and organizations of insurance companies, claims adjustment, and risk management.
- Explain the fundamentals of real estate ownership, development, and transactions.
- Describe the legal and financial aspects of real estate brokerage operations, licensing laws, and contractual issues.
- Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
- Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
- Operate in teams and/or matrix organizational settings.
- Utilize business and financial software.
- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Business Administration, General Management

- Explain the management of a successful new business enterprise.
- Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
- Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
- Operate in teams and/or matrix organizational settings.
- Utilize business and financial software.
- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Business Administration, Leisure Services Management - Geotourism Destination Management

- Explain the relationship between geotourism and sustainable community development.
- Describe environmentally and socially responsible tourism strategies and innovations.
- Assess the potential, costs, and benefits of a geotourism program.
- Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.

- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
- Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
- Operate in teams and/or matrix organizational settings.
- Utilize business and financial software.
- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Business Administration, Leisure Services Management - Sport

- Describe sports as a cultural phenomenon and the relationship between sports and the economy.
- Explain the process of sport facility design and issues associated with sport facility management.
- Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
- Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
- Operate in teams and/or matrix organizational settings.
- Utilize business and financial software.
- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Business Administration, Leisure Services Management - Tourism

- Assess the potential, costs, and benefits of tourism operations.
- Describe the operation and evaluation of tour planning, destination, planning, and meeting/convention planning.
- Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
- Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
- Operate in teams and/or matrix organizational settings.
- Utilize business and financial software.
- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Business Administration, Marketing Management

- Explain sales principles, sales analysis and planning, and sales force management.
- Describe the fundamental principles of advertising, as well as planning, preparation, and evaluation of advertising.
- Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.

- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
- Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
- Operate in teams and/or matrix organizational settings.
- Utilize business and financial software.
- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Business Administration, Retail Management

- Explain the design, implementation, and assessment of retailing strategies based on consumer needs and market changes.
- Describe the process of conceiving, producing, and selling fashion products for in-store and on-line retailing.
- Explain how factors of culture, economics, legal requirements, political activity, technology, the internet and the news media affect the operation of organizations in a global environment.
- Demonstrate the skills needed to develop ideas and make decisions based on ethics, proper research, analysis, and critical thinking.
- Describe the key actions to be taken to effectively and efficiently utilize organizational resources to achieve stated purpose and goals.
- Describe the actions taken to acquire and retain customers; produce goods and services; and measure/track financial performance.
- Explain how the United States banking system and financial markets are structured and operate to facilitate organizational and personal financial management.
- Demonstrate the interpersonal skills to communicate effectively, both orally and in writing.
- Operate in teams and/or matrix organizational settings.
- Utilize business and financial software.
- Demonstrate leadership in a wide variety of organizations.
- Develop a professional growth plan for lifelong learning.

### Computer Information Systems, Business Information

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet specified needs.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field both with a variety of applications.
- Develop the ability to develop web sites, databases and scripts and/or programs for use in a business environment.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Computer Forensics

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs.
- Conduct effective data collection and analysis that can be used as evidence in court.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.
- Explore and develop an ethical value structure and will be able to apply that structure to problem solving and actions.

### Computer Information Systems, Computer Networking

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs.
- Install, configure, secure, troubleshoot and administer server and client systems in a mixed network environment.

- Assemble a broad based knowledge that will allow them to work effectively in the computing field.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Computer Programming

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs.
- Design, develop, test and debug computer programs written in a variety of languages to effectively solve problems.
- Analyze, evaluate and revise computer programs written by someone else.
- Construct effective data storage that can be accessed, manipulated and updated correctly.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field and to write, edit and modify computer programs.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Computer Science

(see page 45 for program coordinator)

### Computer Information Systems, Computer Security

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Install, configure, troubleshoot and administer security software on servers, routers and client devices.
- Designing security infrastructure for computer networks and systems.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs.
- Install, configure, secure, troubleshoot and administer server and client systems in a mixed network environment.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Game Development - Game Creation

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs
- Define and develop a game from concept and implement the game during the capstone course.
- Acquire the skills needed to implement all of the necessary assets for a game ie music, sound, levels, programming, design.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Game Development - Game Programming

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs
- Define and develop a game from concept and implement the game during the capstone course.
- Acquire the skills needed to implement all of the necessary assets for a game ie music, sound, levels, programming, design.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field.

- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Information Systems

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs.
- Design, develop, test and debug computer programs to effectively solve problems.
- Construct effective data storage that can be accessed, manipulated and updated correctly.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field and to write, edit and modify computer programs.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Multimedia and Internet

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs.
- Understand and apply basic design concepts at a level appropriate to application in the business setting.
- Master a variety of multimedia production software.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Computer Information Systems, Webmaster

- Apply the general rules of critical analysis and deductive reasoning to logically solve specific problems and to evaluate the results to determine if they are logically sound.
- Determine information needs, evaluate reliability of sources, access the information, decide its relevance and assemble it to meet their needs.
- Design, develop, test and debug web sites written in a variety of languages to effectively present on line information.
- Construct effective data storage that can be accessed, manipulated and updated correctly to back up a web site.
- Assemble a broad based knowledge that will allow them to work effectively in the computing field.
- Demonstrate an understanding of today's computer environment, be able to appraise changes and will be able to acquire the knowledge and skills to adapt.
- Communicate effectively to convey technical information to the groups they support and to understand their needs.

### Office Administration, Executive Administrative

- Create commonly used business documents using the Microsoft Office suite programs.
- Organize and manage the operations of an office in a diverse, stressful, and ever-changing environment.
- Communicate clearly and effectively utilizing verbal and written communication techniques appropriate for office professionals.
- Create accurate written communications applying correct sentence structure, grammar, word usage, spelling, and punctuation.

## Division 4 {IV}

### Health Sciences

#### Clinical Laboratory Science

- Collect, process, and generate accession numbers for laboratory specimens.
- Perform routine clinical laboratory tests ranging from waived and point-of-care to complex testing in all major areas of the clinical laboratory.
- Make specimen-oriented decisions based on predetermined criteria and critical values.
- Retrieve results and follow laboratory reporting protocol.

#### Complementary Healthcare

- Students will apply advanced skill in assessment, and technique in therapeutic massage practice.
- Students will discern and manage the ethical issues of Therapeutic Massage practice in a rapidly changing environment.
- Students will contribute to improving the knowledge, skills, and values of the profession of massage therapy and assume the responsibility for lifelong learning.
- Students will demonstrate entry-level knowledge of anatomy/physiology, kinesiology and pathology and communicate effectively with other health care professionals.

#### Dental Hygiene

- Discern and manage ethical issues of dental hygiene practice in a rapidly changing environment.
- Acquire and synthesize information in a critical, scientific, and effective manner.
- Contribute to improving the knowledge, skills, and values of the profession.
- Provide planned educational services using appropriate interpersonal communication skills and educational strategies to promote optimal health.
- Initiate and assume responsibility for health promotion and disease prevention activities for diverse populations.
- Systematically collect, analyze, and accurately record baseline data on the general, oral, and psychosocial health status of patients using methods consistent with medico-legal principles.
- Discuss the condition of the oral cavity, identify actual and potential problems, etiological and contributing factors, and available treatments.
- Provide treatment that includes preventive and therapeutic services designed to achieve and maintain oral health and assist the patient in achieving oral health goals.
- Evaluate the effectiveness of planned clinical and educational services and modify as necessary.

#### General Studies, Health Sciences

- Create accurate written communications applying correct sentence structure, grammar, word usage, spelling, and punctuation.
- Communicate clearly and effectively utilizing written and verbal communication techniques.
- Identify, understand, and engage in mathematics as well as make well-founded mathematical judgments as a constructive, concerned, reflective citizen.
- Use historical factual information to understand the current world, and develop an ability to consider issues from a global perspective.
- Understand how individuals interact among groups; and develop an understanding of the beliefs, values, traditions, and practices of people from other cultures.
- Describe the major body systems and explain their functions; use medical language to communicate effectively within the healthcare delivery system.

#### Healthcare Information

- Students will collect and maintain health data, conduct analyses to ensure health record supports patient continuity of care, and apply policies and procedures to ensure the accuracy of health data.
- Students will apply policies and procedures to ensure organizational compliance with regulations and standards and report compliance by maintaining the accuracy and completeness of the patient record as defined by organizational policy as well as external regulations and standards

#### Nursing

- Acts as a Provider of Care to patients throughout the life span by applying the nursing process in assisting the patient to maintain or regain homeostasis when threatened by common health problems.
- Acts as Manager of Care for a group of patients in a structured setting by prioritizing care and by utilizing the skills of other health team members.
- Acts as a member within the discipline of nursing by practicing legally, ethically, and within regulatory frameworks of nursing and standards of professional nursing practice, and by selecting resources and activities for continued development in the nurse role.

#### Occupational Therapy Assistant

- Demonstrate entry-level competence as a generalist occupational therapy assistant in settings where occupational therapy is currently practiced and where it is emerging as a service.
- Articulate and apply occupational therapy principles and interventions to achieve expected outcomes as related to occupation.
- Apply the ethical standards, values, and attitudes of the occupational therapy profession.

- Demonstrate professional values, attitudes and behavior.
- Demonstrate sensitivity to factors of culture and diversity in the delivery of OT services.
- Demonstrate commitment to lifelong learning and continuing professional development.
- Demonstrate commitment to currency in best practice.
- Distinguish the distinct roles and responsibilities of the occupational therapist and occupational therapy assistant in the supervisory process.
- Advocate as a professional for the occupational therapy services offered and for the recipients of those services.

#### Office Administration, Medical Administrative Assistant

- Apply organizational skills in managing the operations of any office in a diverse, stressful and ever-changing environment.
- Communicate clearly and effectively utilizing written and verbal communication techniques appropriate for office professionals.
- Work effectively and with an open mind as a team player in a diverse work group.
- Apply computer skills to office tasks using a variety of business-related software and hardware.
- Create accurate written communications applying correct sentence structure, grammar, word usage, spelling and punctuation.
- Practice effective listening skills, follow oral/written instructions, learn how to take the initiative, work independently, and offer alternative solutions where applicable.
- Display professional traits such as dependability, flexibility and adaptability, a positive attitude, professional appearance, punctuality/attendance, responsibility/accountability, and sound judgment.

### Division 5 {V}

#### Mathematics, Science, and Engineering

##### Engineering Technology, Architectural and Structural Technology

- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Exhibit an understanding of mathematics-based logical arguments and quantitative reasoning and utilize this understanding to validate relationships and processes.
- Interpret scientific principles and apply the methodology of scientific inquiry to analyze problems.
- Demonstrate knowledge of computer hardware, software and operating systems and effectively utilize the Internet and discipline related software packages.
- Apply computer-aided design, structural, surveying and geotechnical principles to analyze and design simple structures.

##### Engineering Technology, Automation Technology

- Utilize common professional office software programs to effectively present, analyze and communicate Engineering projects and ideas.
- Effectively create and read professional engineering drawings & sketches in both 2-D and 3-D of simple & complex models and assemblies per ASME & ANSI Standards.
- Safely and accurately operate several manual and automated machine tools. Create and perform setup procedures.
- Select tooling based on material requirements and drawing specifications.
- Perform systematic trouble shooting and diagnostic skills in defining and solving automation problems.
- Implement programming principles to create machining codes using standard G&M codes and create automation programming ladders utilizing Allen Bradley Formats.

##### Engineering Technology, Biomanufacturing Technology

- Utilize common professional office software programs to effectively present, analyze and communicate Engineering projects and ideas.
- Students will employ computers and automated equipment while working in a laboratory environment in biomanufacturing, bioprocessing or pharmaceutical manufacturing
- Students will analyze technical problems and assess possible solutions based on theories and applications in the fields of biology, chemistry and engineering.

- Students will demonstrate lab skills for entry-level biotech positions, including setting up sample analysis, maintaining automated instruments, and preparing materials for research scientists.
- Graduates will apply skills as biotechnician in gene manipulation, biotechnological applications in medicine, forensics, and industry, bioethics, and biological risk assessment.
- Students will use methods of identification, sources and modes of infection, inhibition and control of growth and principles of sanitation.
- Students will prepare measurements and dimensional analysis of chemical substances per formulas, chemical equations and apply stoichiometry, thermochemistry principles.

##### Engineering Technology, Civil Technology

- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Exhibit an understanding of mathematics-based logical arguments and quantitative reasoning and utilize this understanding to validate relationships and processes.
- Interpret scientific principles and apply the methodology of scientific inquiry to analyze problems.
- Demonstrate knowledge of computer hardware, software and operating systems and effectively utilize the Internet and discipline related software packages.
- Apply computer-aided design, construction, structural, surveying and geotechnical principles to analyze and design civil engineering projects.

##### Engineering Technology, Electro-Mechanical Technology

- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Exhibit an understanding of mathematics-based logical arguments and quantitative reasoning and utilize this understanding to validate relationships and processes.
- Interpret scientific principles and apply the methodology of scientific inquiry to analyze problems.
- Demonstrate knowledge of computer hardware, software and operating systems and effectively utilize the Internet and discipline related software packages.

##### Engineering Technology, Electronics Technology

- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Exhibit an understanding of mathematics-based logical arguments and quantitative reasoning and utilize this understanding to validate relationships and processes.
- Interpret scientific principles and apply the methodology of scientific inquiry to analyze problems.
- Demonstrate knowledge of computer hardware, software and operating systems and effectively utilize the Internet and discipline related software packages.
- Apply circuit principles, simulation software such as Multisim, and test equipments to measure, trouble shoot, analyze and design simple electrical circuits.

##### Engineering Technology, Environmental Technology

- Apply principles of mathematics, biology, chemistry, sampling, Geographic Information Systems, and hazardous materials to the operation of environmental facilities and the analysis of environmental problems.
- Demonstrate knowledge of computer hardware, software and operating systems and effectively utilize the Internet and discipline related software packages.
- Interpret scientific principles and apply the methodology of scientific inquiry to analyze problems.
- Exhibit an understanding of mathematics-based logical arguments and quantitative reasoning and utilize this understanding to validate relationships and processes.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.

##### Engineering Technology, Marine Technology

- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Exhibit an understanding of mathematics-based logical arguments and quantitative reasoning and utilize this understanding to validate relationships and processes.
- Interpret scientific principles and apply the methodology of scientific inquiry to analyze problems.
- Demonstrate knowledge of computer hardware, software, and operating systems and effectively utilize the Internet and discipline related software packages.
- Apply the principles of marine electronics, engine repair, materials science, marine systems, marine safety, and/or statistics, marine biology, fisheries technologies to the maintenance and management of pleasure and commercial vessels and facilities and/or to the monitoring of Atlantic fish stock.

##### Engineering Technology, Mechanical Technology

- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Exhibit an understanding of mathematics-based logical arguments and quantitative reasoning and utilize this understanding to validate relationships and processes.
- Interpret scientific principles and apply the methodology of scientific inquiry to analyze problems.
- Demonstrate knowledge of computer hardware, software and operating systems and effectively utilize the Internet and discipline related software packages.
- Apply computer-aided design, materials science, electrical, fluidic and mechanics principles to analyze, design, build and troubleshoot mechanisms and machines.

##### Engineering Transfer, Engineering Science

- Identify, critically analyze, and ethically evaluate problems from a variety of perspectives, interpret data, and research and develop solutions.
- Utilize the English language to communicate and interact effectively, in both written and oral formats, to a variety of individuals and diverse groups of human beings.
- Exhibit an understanding of calculus-based logical arguments and quantitative applications to verify the validity of a variety of relationships and processes.
- Interpret scientific principles, particularly in chemistry and physics, and apply the methodology of scientific inquiry to analyze problems.
- Demonstrate knowledge of computer hardware, software and operating systems and effectively utilize the Internet and discipline related software packages.
- The following goals are specific to the main areas of concentration within the Transfer Program:
  - Civil Engineering Transfer students should demonstrate a thorough understanding of civil drafting and design principles and basic electrical theories, and should be able to apply surveying principles and effectively utilize surveying equipment in a variety of applications.
  - Electrical and Computer Engineering Transfer students should demonstrate a thorough understanding of electrical circuits and computer programming fundamentals, and should be able to utilize electrical engineering principles to design, build, and troubleshoot electrical equipment.
  - Mechanical Engineering Transfer students should demonstrate a thorough understanding of advanced computer-aided design principles, and engineering material science fundamentals, and should be able to utilize electrical engineering principles to design, build, and troubleshoot electrical/electronic equipment.

##### Fire Science Technology

- Describe the history and principles of the fire service.
- Provide an in-depth analysis of the principles of firefighting through the utilization of personnel, equipment, and extinguishing agents on the fire ground.
- Demonstrate a knowledge and understanding of building construction practices, fire prevention codes and ordinances, fire ground water supply, and the incident command system.

4. Apply the principles of supervision and management necessary for leadership and administration in the fire service.
5. Demonstrate the ability to formulate pre-fire plans.
6. Identify and describe the different automatic fire alarm and extinguishing systems.

#### General Studies, Technical Studies

1. Create accurate written communications applying correct sentence structure, grammar, word usage, spelling, and punctuation.
2. Communicate clearly and effectively utilizing written and verbal communication techniques.
3. Identify, understand, and engage in mathematics as well as make well-founded mathematical judgments as a constructive, concerned, reflective citizen.
4. Use historical factual information to understand the current world, and develop an ability to consider issues from a global perspective.
5. Understand how individuals interact among groups; and develop an understanding of the beliefs, values, traditions, and practices of people from other cultures.
6. Analyze critically science-based issues in contemporary society.

#### Liberal Arts & Sciences, Biotechnology/ Biomedical

(see page 85 for program coordinator)

#### Liberal Arts & Sciences, Environmental Science

1. Demonstrate an understanding of the levels of evidence behind scientific hypotheses, theories and principles.
2. Demonstrate proper usage of scientific methods for analyzing and interpreting data obtained from satellite images, archived data sets and/or in class lab experiments.
3. Analyze topics of interest in Environmental Science by designing and carrying out literature searches using tools introduced in BCC Science Courses.
4. Utilize appropriate mathematical skills to analyze data sets in the Sciences and in related areas of study.
5. Demonstrate an appropriate understanding of physical science phenomena and as they are applied to the field of Environmental Science.
6. Display proper usage of English composition and grammar as applied to writing assignments appropriate to the field.
7. Demonstrate the use of technical, computer-based and laboratory skills to describe and analyze scientific data.
8. Demonstrate an understanding of the multicultural nature of the study of scientific phenomena in a global community in which scientists of many nationalities and backgrounds must interact in meaningful ways in order to interpret and analyze scientific data and reports.
9. Properly interpret the role of science in a historical perspective, as well as a tool for improving the technological future of mankind.
10. Demonstrate the ability to present and defend scientific data and theories orally or in written form to peers in the scientific community.

#### Liberal Arts & Sciences, Math and Science Option

1. Transfer to a wide variety of public and private baccalaureate programs with junior status.
2. Identify and pursue their interests in mathematics or a natural or physical science major.
3. Understand the basic content and methodology of science, social sciences, mathematics, humanities and the arts.
4. Acquire skills to be productive and lifelong learners, including abilities in oral and written communication, information literacy, critical and creative thinking, and technical competency.
5. Develop qualities of an ethical individual and responsible citizen, including a sensitivity to and respect for cultural diversity.

## Division of Developmental Education

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#### General Studies Prep, Career Prep

1. Develop a foundation on which to build college success.
2. Complete developmental coursework.
3. Prepare for successful transfer to selected BCC career program.

#### General Studies Prep, English as a Second Language

1. Improve English skills in conversation, grammar, reading and writing.
2. Build a strong foundation in the academic use of the English Language.
3. Prepare students to continue their college studies in the program of their choice.
4. Enjoy the campus community by participating in the International Club.

#### General Studies Prep

1. Develop a foundation on which to build college success.
2. Complete developmental coursework.
3. Prepare for successful transfer to desired BCC program.