

AS Program Outcomes

Cluster & Program	Program Outcome	Program Outcome Assessment Measure	Use of Assessment Measure to Improve Program
Cluster #4			
Aquaculture - updated 1-30-06	1) Students will identify important aquaculture plants and animals and describe their culture in various production units.	1) Grade of 70% or better on final exam in ZOO 1450/ZOO 1450L (Ichthyology).	1) Faculty/Program Manager will evaluate final exam pass rates trends and will adjust the curriculum with input from Florida aquaculture industry representatives to ensure content relevance.
	2) Students will demonstrate practical understanding of water quality, reproduction, nutrition, and disease control in aquaculture systems.	2) Establishment of aquaculture production unit demonstrating management of water quality, nutrition, reproduction, and diseases. Grade of 70% or better on final exam (class project) in FAS 1401L, 2240C, 2253L, and 2263C. Successful demonstration of knowledge, skills, and abilities in applied field techniques FAS 1404C.	2) Faculty/Program Manager will evaluate final exam/project pass rate trends and will adjust the curriculum with input from the Florida aquaculture industry representatives to ensure content relevance.
	3) Students will apply business, management, economic, and marketing principles to the production of an aquatic crop.	3) Development of a business plan for production of an aquatic crop. Grade of 70% or better on final project in FAS 2353.	3) Faculty/Program Manager will evaluate final exam/project pass rate trends and will adjust the curriculum with input from the Florida aquaculture industry representatives to ensure content relevance.
Environmental Science	1) Students will demonstrate knowledge of the principles of managing and remediation of water pollution.	1) The student will be able to identify types and sources of water contamination, describe legal aspects and consequences of pollution, and collect water samples for analysis.	1) The assessment will be used to measure student knowledge and skills in water pollution issues and this information will be used in consultation with the Advisory Committee to determine if changes in curriculum or teaching methods are required.
	2) Students will operate and Calibrate laboratory and field instruments used in quantitative and qualitative analysis of pollutants	2) The student will be able to operate and calibrate selected laboratory and field instruments and equipment.	2) The assessment will be used to measure student knowledge and skills in operating laboratory and field instrumentation/equipment and this information will be used in consultation with the Advisory Committee to determine if changes in curriculum or teaching methods are required.
	3) Students will sample, analyze and calculate data related to air and water pollutants.	3) The student will be able to gather and analyze selected samples, manipulate data and reach firm conclusions, and write selected formal technical reports.	3) The assessment will be used to measure student knowledge and skills in conducting analysis of water samples, drawing appropriate conclusions, and writing technical reports, and this information will be used in consultation with the Advisory Committee to determine if changes in curriculum or teaching methods are required.
Landscape and Horticulture Technology	1) Students will demonstrate knowledge of plant ID, and management strategies and techniques.	1) Students will be provided with exercises where they will be assessed on their ability to use strategies and techniques to identify and manage plants in different operations.	1) Measures will be used in lecture and laboratory exercises.
	2) Students will demonstrate their understanding of drainage and irrigation needed in the landscape.	2) Students will be given exercises in which they will be assessed on their ability to evaluate sites, install irrigation and drainage systems in the landscape.	2) Success of measures will be maintained and used as recruitment too for the program.
	3) Students will demonstrate employability to include collecting, recording, storing and using data, conducting interviews and training exercises.	3) Students will be given exercises in which they will be assessed on their ability to collect, record and use data for specific operations. They will also be assessed on their ability to conduct mock interview and train others.	3) Publish measures in appropriate publications

AS Program Outcomes

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Veterinary Technology	1) Students will apply knowledge of veterinary office, clinic and hospital management and equipment standards.	1) The student will be able to demonstrate knowledge of: maintenance of clinical records, preparing required certifications for signature, knowledge of the technician's role in the generation of veterinary practice income, making appointments and personnel management.	1) The assessment will be used to measure student knowledge and skills in veterinary practice and clinic management, and this information will be used in consultation with the Advisory Committee to determine if changes in curriculum or teaching methods are required.
	2) Students will perform identified laboratory and radiographic procedures.	2) The student will be able to: demonstrate an understanding of the terminology, handling, and use of drugs; perform under supervision - physical and other standard examination procedures; assist with routine surgical and obstetrical procedures; perform surgical clean-up; perform large and small animal nursing techniques; and perform standard laboratory procedures such as urinalysis, hematology, parasitology, cytology, and radiography.	2) The assessment will be used to measure student knowledge and skills in clinical operations and procedures and this information will be used in consultation with the Advisory Committee to determine if changes in curriculum or teaching methods are required.
	3) Students will apply knowledge of professional ethics, jurisprudence and professionalism.	3) The student will be able to: List the benefits of belonging to a professional organization of animal techniques and describe the technician/veterinarian relationship.	3) The assessment will be used to measure student knowledge in the ethics of veterinary practice and professional standards, and this information will be used in consultation with the Advisory Committee to determine if changes in curriculum or teaching methods are required.
Cluster #5			
Early Childhood Management - updated 1-30-06	1) Students will plan, establish, and maintain a learning environment for all children.	1) Completion of 480 practicum hours (ACEI, Global Assessment Measure)	1) ACEI Global Assessment Measure utilized in practicum courses EEC 1941/EEC 1943 to assess best practices. Assessment measure used by students, directors, and instructors to assess best practices as defined by NAEYC. Assessment measure used to improve teaching methodology.
	2) Students will demonstrate a commitment to professionalism.	2) Completion of professionalism portfolio (Competency Standards per CDA). Completed within practicum (EEC1941 and 1943). Measured in accordance with competency standards outlined by the CDA Council.	2) CDA competency standards utilized in practicum courses EEC 1941/EEC 1943 to assess knowledge and application of professional standard. Used by students and instructor to improve curriculum.
	3) Students will demonstrate knowledge of state and local rules and regulations that govern child care.	3) Completion of business plan per Hillsborough County (Child Care Licensing Standards Ordinance Measure 03-25/04-25). Completed within CHD 1800 (Director Credential) or EEC 1521. Measured in accordance with Florida Administrative Guidelines.	3) Licensing ordinance 03-25/04-25 – utilized in management courses CHD 1800/EEC 1521 to assess local and state guidelines (knowledge and application). Used by students and instructor to improve curriculum.
Cluster #8			
Nursing	1) Students will demonstrate knowledge of nursing FLDOE framework.	1) Graduates will score within 10 points or better of the State pass rate on NCLEX exam.	1) NCLEX exam data and HESI data will be used to strengthen didactic curriculum.
	2) Students will demonstrate competency in clinical decision making.	2) Students will score satisfactory on clinical evaluations in decision making completed by clinical instructors.	2) Data collected from clinical instructors will be used to strengthen the clinical curriculum.
	3) Students will demonstrate competency in management of care.	3) Students will score satisfactory on clinical evaluations in management of care completed by clinical instructors.	3) Data collected from clinical instructors will be used to strengthen the clinical curriculum.
Cluster #9			
Dental Assisting	1) Recognize and practice infection control.	1) 80% pass rate on skill competency assessment to monitor student progress and 78% pass rate on courses to assess course instructors.	1) Use data to reevaluate course content.
	2) Apply basic math and science skills.	2) 83% pass rate on Dental Assisting National Boards to assess course content.	2) Use exam data to strengthen preparation for National Board Exams.
	3) Demonstrate employability skills.	83% positive response on returned surveys to assess program integrity.	3) Share data with advisory committee for suggestions to strengthen the curriculum.

AS Program Outcomes

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Human Services	1) Students will demonstrate proficiency in client assessment and evaluation.	1) 90% of students in practicum will score satisfactory or above on the performance-based evaluation completed by HCC and agency supervisors.	1) Data will be used to strengthen the curriculum.
	2) Students will demonstrate proficiency in case management and the process of care planning.	2) 90% of employers of graduates will indicate that grads are competent in these areas.	2) Data will be used to strengthen the curriculum.
	3) Students will demonstrate proficiency in client interventions.	3) Same measures as above in 1 and 2.	3) Data will be used to strengthen the curriculum.
Diagnostic Medical Sonography	1) Graduates will demonstrate knowledge of Diagnostic Medical Sonography program specific objectives.	1) 80% pass rate on ARDMS licensure exams.	1) ARDMS exam data will be used to strengthen the curriculum.
	2) Graduates and employers will confirm competency of Diagnostic Medical Sonography program specific objectives.	2) 90% satisfaction on returned graduate and employers surveys.	2) Survey data will be used to strengthen the curriculum and the program.
	3) Students will demonstrate knowledge of Diagnostic Medical Sonography program specific objectives.	3) 80% pass rate on program comprehensive examination.	3) Advisory committee will assess outcomes of comprehensive exam and provide recommendations to strengthen the curriculum.
Dental Hygiene	1) Graduates will be able to perform FLDOE Dental Hygiene Curriculum Outcomes.	1) 80% of graduates will receive a license to practice Dental Hygiene.	1) Licensure and board exam results will be used to revise and strengthen the curriculum.
	2) Graduates and employers will indicate graduating students achieved skill competencies as outlined in the FLDOE curriculum.	2) 90% of returned graduate and employer surveys will indicate satisfaction in program competencies.	2) Graduate and employer surveys will be used with advisory committee input at annual curriculum review.
	3) Graduating students will satisfy ADA program competencies outlined in Dental Hygiene curriculum plan.	3) 80% of graduates will pass the National Board exam and the Florida State Clinical Board exam.	3) Student course evaluation and patient satisfaction surveys will be used to revise and strengthen the curriculum.
Emergency Medical Services	1) Students will demonstrate knowledge of FLDOE EMS framework objectives 12-40.	1) 70% pass rate on the State Certification exam.	1) Exam data will be used to strengthen the curriculum.
	2) Graduates will demonstrate competency in FLDOE EMS framework objectives in the workplace.	2) 90% of employer surveys returned will indicate satisfaction with graduates.	2) Survey results will be used to strengthen the curriculum.
	3) Students will demonstrate competency in FLDOE EMS framework objectives at the end of the program.	3) Students will score 90% on the comprehensive course final exam.	3) Exam results will be used to strengthen the curriculum.
Nuclear Medicine	1) Graduates will demonstrate knowledge of FLDOE state curriculum framework 12-18.	1) 70% of NMT program students will pass the national certification and state licensure exams.	1) Licensure exam data will be used by the faculty to strengthen the curriculum as needed.
	2) Graduates and employers will indicate that graduating students perform the competencies as listed in the FLDOE state curriculum framework 12-18.	2) 70% of returned employer and graduate surveys will indicate that our graduating students demonstrate the necessary competencies for employment.	2) Employer and graduate surveys will be used to help the faculty revise the curriculum as needed.
	3) The professional community indicates that the graduates are prepared for employment.	3) The advisory committee will be consulted twice annually to review the changes to the curriculum.	3) Advisory committee will be used to review changes in the curriculum.
Opticianry	1) Students will demonstrate knowledge of the effects ophthalmic devices have in correcting the error of human vision.	1) 70% pass rate on American Board of Opticianry certification exam.	1) Exam data will be used to review the curriculum by faculty and the advisory committee.
	2) Students will demonstrate knowledge to fit contact lenses.	2) 70% pass rate on the national contact lens exam.	2) Exam data will be used to review the curriculum by faculty and the advisory committee.
	3) Students will demonstrate the knowledge to fit and dispense prescriptions.	3) Students will demonstrate the knowledge to fit and dispense prescriptions.	3) Exam data will be used to review the curriculum by faculty and the advisory committee.

AS Program Outcomes

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Radiation Therapy	1) Graduates will demonstrate knowledge to pass the ARRT exam in Radiation Therapy.	1) 75% pass rate over five years on first attempt at ARRT exam for Radiation Therapy.	1) ARRT exam data will be used to strengthen the curriculum.
	2) Students will successfully complete the Radiation Therapy program.	2) 75% program completion rate over five years.	2) Completion rate data will be used to help indicate barriers to completion.
	3) Graduates will gain employment in Radiation Therapy upon graduation.	3) 75% job placement over five years.	3) Job placement data will be used to help with placement of graduates.
Radiography	1) Students will demonstrate knowledge of Radiography.	1) 80% of radiography students attempting will pass the ARRT exam.	1) Exam data will be used to strengthen the curriculum.
	2) Graduates will indicate program prepared them for employment and ARRT exam.	2) 80% of the graduate surveys returned will indicate program prepared them for employment and ARRT exam.	2) Graduate survey results will be used to evaluate courses for deficiencies.
	3) Employers will indicate program prepared graduates for employment.	3) 80% of employer surveys returned will indicate graduates prepared for employment.	3) Employer surveys results will be discussed with advisory committee to help improve the curriculum.
Respiratory Care	1) Graduates will demonstrate knowledge of the FLDOE core competencies.	1) 80% of the graduates who attempt will pass the national certification exam and 75% of the graduates who attempt will pass the national registry exam.	1) Review of credentialing exam data will allow the faculty to adjust the curriculum to strengthen areas of weakness.
	2) Graduates will indicate that the program prepared them for the workforce.	2) 75% of the graduate surveys returned will indicate the program prepared them for the workforce.	2) Review of graduate surveys will allow the faculty to adjust the curriculum to strengthen areas of weakness.
	3) Employers will indicate that the program prepared the graduates for employment.	3) 75% of the employer surveys returned will indicate that the graduates have been prepared for employment.	3) Review of employer surveys along with input from advisory committee will suggest to the faculty ways to strengthen the curriculum especially in areas of the affective domain including employability skills.
Sign Language Interpretation Program	1) Students will demonstrate knowledge of Linguistic Principles of American Sign Language and Cultural Aspects of American Deaf Community.	1) 80% of program completers will take and pass the Florida Registry of Interpreters for the Deaf Quality Assurance written examination.	1) Written test data will be used to strengthen the curriculum.
	2) Students will understand current laws and government regulations that impact the field of sign language interpretation.	2) Satisfactory evaluations from internship sites as to students ability to perform their interpreting role.	2) Site evaluations will be used to strengthen the curriculum.
	3) Students will possess the skills necessary to interpret and/or transliterate at the entry level in a variety of work settings.	3) Program completers will satisfactorily complete an exit interview to demonstrate comprehensive knowledge and ability.	3) Feedback from the interview team will be used to strengthen the curriculum.
Cluster #10			
Accounting	1) Students will perform accounting activities.	1) Successful completion of accounting projects or coursework.	1) Consult with Advisory Board to ascertain currency and relevance.
	2) Students will utilize computerized accounting application and resources.	2) Generation of accounting reports and financial analyses using computerized resources.	2) Continually monitor industry preferences by reviewing publications and consulting with the Advisory Board.
	3) Students will develop critical-thinking, decision-making, and communication skills.	3) Participation in collaborative learning class sessions.	3) Consult with Advisory Board to ascertain desired analysis and soft skills and the industry's satisfaction with completers.

AS Program Outcomes

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Business Administration	1) Students will demonstrate employability skills.	1) Percentage of completers who find employment within their degree field.	1) Relate to the program advisory committee to update program.
	2) Students will demonstrate leadership and management skills and knowledge.	2) Integrating management and leadership concepts through case study analysis and various group projects.	2) The ability to integrate core concepts into practical use.
	3) Students will demonstrate basic computer/technology skills.	3) Student use of technology to complete course objectives.	3) Ensure students have current technology skills and competencies.
Culinary Management - updated 1-30-06	1) Demonstrate knowledge of laws that affect the culinary industry.	1) American Culinary Federation (ACF) certification requirement (Exam - Menu laws and food, health diet regulations).	1) Increase by 3% the student application for ACF certification as Junior Cullinarian at graduation in the AS.CUL.CULA program.
	2) Demonstrate knowledge of methods of preparing foods for cooking.	2) Practical and written final cooking per ACF certification standards in FSS 1223C.	2) ACF certification criteria for Entry Level Cooks in industry.
	3) Demonstrate knowledge in applying principals of nutrition.	3) Nutrition completion certification required for ACF certification.	3) American Dietary Association (ADA) accreditation requirement curriculum updates as
Hospitality	1) Students will apply human relation skills.	1) NRA certification exam (Supervisory skills)	1) Maintain our high rate of 72% success rate on industry certification exams.
	2) Students will plan and design menus	2) AH&CA Certification exam (menu planning).	2) Improve student performance from 72% to 75%.
	3) Students will manage the front desk.	3) AH&CA Certification exam (Front desk operations).	
Industrial Management	1) Students will be able to demonstrate appropriate communication skills.	1) Percentage of students who achieve a passing grade of "C" or better in communication component of internship course.	1) Annual summative data will be gathered, analyzed, and used to enhance individual courses and/or integrate additional communication courses into program
	2) Students will be able to apply basic decision-making skills in supervision.	2) Percentage of students who achieve a passing grade of "C" or better on supervisory component of internship course.	2) Cumulative data for a single cohort will be compiled, analyzed, and used to enhance instruction in management courses.
	3) Students will be able to identify, classify, and demonstrate management functions.	3) Percentage of students who achieve a passing grade of "C" or better on comprehensive final examination in SBM 2000 course.	3) Cumulative data for a single cohort will be compiled, analyzed, and used to enhance instruction in small business management course (SBM 2000).
Optical Management	1)	1)	1)
	2)	2)	2)
	3)	3)	3)
Restaurant Management - updated 1-30-06	1) Demonstrate knowledge and application of product and service technologies.	1) FSS 1223 C practical and final exam using American Culinary Federation (ACF) certification criteria.	1) ACF certification criteria for Entry Level Cooks used by industry in hiring process.
	2) Demonstrate acceptable professional sanitation/safety practices.	2) ACF certification requirement ACF Exam, Menu Laws and Food, Health Diet Regulations.	2) Increase by 3% the student applications for ACF certification as Junior Cullinarian at graduation in the AS.CUL.CULA program.
	3) Demonstrate essential food production skills.	3) FSS 1223C practical and final exam using ACF certification criteria.	3) ACF certification criteria for Entry Level Cooks used by industry in hiring process.
Cluster #11			
Criminal Justice Technology - updated 1-30-06	1) Students will describe and discuss all aspects of the criminal justice system and its functions, procedures, and policies.	1) 70% of students achieving a minimum, program-level, GPA of 2.0.	1) Program Coordinator will adjust program/course content and delivery methods.
	2) Students will demonstrate an understanding of criminal law and the juvenile justice system	2) 70% of students who pass comprehensive exams in CJL 1100 and CCJ 1500	2) Program Coordinator will modify practical content based on cumulative student data
	3) Students will explain evidence and rules of evidence.	3) 70% of graduates who secure employment in the field and/or transfer to a four-year school university.	3) Program Coordinator will improve retention strategies, success rates, and recruitment activities.
Fire Science Technology - updated 1-30-06	1) Students will demonstrate knowledge of the strategies of fire control.	1) 90% passing rate of State Fire College Fire Officer & Exam.	1) Lead faculty will adjust how program is delivered.
	2) Students will demonstrate knowledge of fire protection and life safety aspects of building construction.	2) 90% passing rate of State Fire College Municipal Fire Safety Inspection Exam.	2) Lead faculty will adjust program content.
	3) Students will demonstrate knowledge of hazardous materials.	3) 90% passing rate of State Fire College Hazardous Material Technician Exam.	3) Lead faculty will improve success rate of program and recruitment of students.

AS Program Outcomes

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Law Enforcement - updated 1-30-06	1) Students will take appropriate legal action given a situation that may be criminal, civil or nothing at all.	1) Pursuant to Rule 11B-35.001, the student must pass an end of course cognitive examination (70%).	1) Program Coordinator will adjust program/course content and delivery methods.
	2) Students will apply the SECURE problem-solving model to a patrol situation.	2) Pursuant to Rule 11B-35.0024, the student must demonstrate proficiency during an applied practicum (70%).	2) Program Coordinator will modify practical content based on cumulative student data
	3) Students will assess a physical threat and select the appropriate response.	3) Pursuant to Rule 11B-35.0024, the student must demonstrate proficiency on an end of course skills examination (70%).	3) Program Coordinator will improve retention strategies, success rates, and recruitment activities.

AS Program Outcomes

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Legal Assisting - updated 1-30-06	1) Students will demonstrate knowledge of the ethical and professional standards of the Legal Assistant.	1) 70% of students achieving passing scores on comprehensive exam in PLA 1003.	1) Program Coordinator will adjust program/courses and content.
	2) Students will demonstrate ability to utilize the law library and online legal research and apply knowledge to legal writings.	2) 70% of students will demonstrate mastery thru successful preparation of major legal documents in PLA 1104 and PLA 2114.	2) Program Coordinator will adjust program/courses and content.
	3) Students will demonstrate knowledge of legal forms and ability to prepare legal documents. Demonstrate legal writing skills, including how to solve legal problems by analyzing complex factual matters and applying legal authority.	3) 70% of graduates who secure employment in the field and/or transfer to a 4-year school	3) Program Coordinator will improve recruitment, retention and success rate of students in the program through continual program development of new courses, revisions of existing courses, and input from the advisory committee.
Radio & Television Broadcasting - updated 1-30-06	1) Students will perform TV production and programming activities	1) Tests – 70% of students who demonstrate proficiencies on skills tests administered in RTV 2000 will be able to demonstrate proficiencies on skills tests administered in the class.	1) Faculty will implement new teaching strategies and/or expand hands-on learning.
	2) Students will perform ENG and EFP Equipment Functions.	2) Productions/Projects – 70% of students complete in RTV 2460 will be able to demonstrate advanced technical/creative skills in radio/TV.	2) Faculty will use feedback from Practicum grading rubric to enhance coursework in prerequisite courses.
	3) Students will demonstrate Radio Broadcasting Skills.	3) Internships – 70% of students completing RTV 1941 will receive a passing grade based on the standardized evaluation form submitted by the broadcasting professional supervisor to the internship coordinator.	3) Faculty will gather and evaluate feedback data will be used to enhance specific courses and overall program mission
Cluster #12			
Architecture/Construction Technology - updated 1-30-06	1) Students will interpret drawings and documents.	1) 70% of students with a grade of "C" or higher in BCN 2272.	1) Review and revise course content with respect to licensing exam results.
	2) Students will estimate basic quantities.	2) 70% of students with a grade of "C" or higher in BCT 2600C.	2) Review and revise course content with respect to licensing exam results.
	3) Students will demonstrate employability skills, BCN 2942C is a virtual capstone course taken in 4th semester.	3) 70% of students with a grade of "C" or higher in BCN 2942C.	3) Review and revise course content per comments of sponsor firms.
Biomedical Equipment Engineering	1) Students will demonstrate proficiency in the application of verbal and mathematical skills.	1) The student will complete a project based capstone course. The project designed for the student will be developed in concert core program competencies and the student's area of curriculum emphasis.	1) The results of student performance will be analyzed by program faculty and Advisory Committee members to identify program strengths and weaknesses.
	2) Students will demonstrate proficiency in the application of software skills related to biomedical engineering technology.		2) Curriculum strategies will be developed to remediate the identified program curriculum weaknesses.
	3) Students will demonstrate proficiency in understanding basis pneumatics, fluidic, mechanical principles, biomedical principles, networking principles, electronics/computer principles, and laser/optics principles.		
Computer Engineering Technology	1) Students will demonstrate proficiency in communication interfacing, peripheral equipment, customer site requirements and considerations, customer relations, high-level computer programming languages, computer networking techniques, and use of microcomputer disk operating system services and functions.	1) The student will complete a project based capstone course. The project designed for the student will be developed in concert with core program competencies and the student's area of curriculum emphasis.	1) The results of student performance will be analyzed by program faculty and Advisory Committee members to identify program strengths and weaknesses.

AS Program Outcomes

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	2) Students will demonstrate proficiency in analysis and design of digital systems and peripheral equipment used in computer systems.		2) Curriculum strategies will be developed to remediate the identified program curriculum weaknesses.
	3) Students will demonstrate proficiency in appropriate communication skills, math skills, and understanding of basic science.		

AS Program Outcomes

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Computer Information Administrator	1) Students will install & configure computer hardware & software.	1) Project based assessment incorporated all above stated outcomes.	1) Student performance results will be reviewed by cluster each year with curriculum modifications as needed.
	2) Students will define the components of networked environments internet technologies, technical support systems.		
	3) Students will perform computer information systems analysis activities.		
Computer Science	1) Students will demonstrate proficiency in developing and operating a database.	1) New project based course which will encompass the entire database development life cycle.	1) Student performance results will be reviewed by cluster and advisory committees each year with curriculum modifications as needed.
	2) Students will demonstrate proficiency in manipulating a database and creating tables and data structure.		
	3) Students will demonstrate proficiency in developing apps and using procedure building tool.		
Computer Science	1) Students will perform data file activities.	1) New project based capstone course which will encompass the entire software life cycle.	1) Student performance results will be reviewed by cluster and advisory committee each year with curriculum modifications as needed.
	2) Students will perform analysis activities.		
	3) Students will perform coding activities.		
Data Base Technology	New Program - Outcomes Forthcoming		
Digital Media/Multimedia	1) Students will create projects and presentations utilizing a variety of digital media/multimedia technologies.	1) Student will create final product/project using appropriate software.	1) Install for reviews project and assesses hardware/software capabilities needing improvement/replacement.
	2) Students will design and execute audio technology for a digital media/multimedia project.	2) Student will create all many audio files in designated formats.	2) Review outcomes with advisory committees and faculty to assess currency.
	3) Students will use computer applications for digital media/multimedia project.	3) Student determines appropriate software to produce desired outcome.	
Electronic Engineering	1) Students will demonstrate proficiency in electronic laboratory practices.	1) The student will complete a project based capstone course. The project designed for the student will be developed in concert with core program competencies and the student's area of curriculum emphasis.	1) The results of student performance will be analyzed by program faculty and Advisory Committee members to identify program strengths and weaknesses.
	2) Students will demonstrate proficiency in direct current circuits, alternating current circuits, solid state devices, analog circuits, digital circuits, microprocessor systems, and technical recording and reporting.		2) Curriculum strategies will be developed to remediate the identified program curriculum weaknesses.
	3) Students will demonstrate proficiency in design and analysis of discrete solid-state circuits and analysis of systems using linear integrated circuits.		
	4) Students will demonstrate proficiency in programming, design and analysis of microprocessor based systems.		

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Internet Services Technology	1) Students will demonstrate proficiency in internet and enterprise network structure, organization hardware and software.	1) Capstone experience in current or new course to include written and project based assessments.	1) Student performance results will be reviewed by cluster and advisory committee each year with curriculum modification as needed.
	2) Students will install hardware, software and enterprise architecture.		
	3) Students will demonstrate proficiency in web design, development, programming, scripting, testing, troubleshooting, security, quantitative analysis, web site management, and e-commerce related activities.		
Manufacturing Technology - updated 1-30-06	1) Students will perform corrective and preventive maintenance, engineering support, and material handling.	1) Survey of technical skills performance of program graduates in the workforce. The average level of satisfaction by the employers will average 70% or higher.	1) Adjust the curriculum content to address the feedback from employers. The faculty will implement the curriculum improvement and adjustment after working through the Cluster and Academic Affairs approval process.
	2) Students will apply workplace safety practices and process engineering change notices, maintain product quality standards, and demonstrate an understanding of entrepreneurship and of basic science.	2) Employers' evaluation of the interns from the Manufacturing Program; average level of satisfaction by host companies will average 70% or higher.	2) Evaluate the preparedness of the interns and adjust the curriculum content of the program, as needed. The evaluations will be conducted jointly by the faculty and the host companies; the faculty will implement the curriculum improvement and adjustment after working
	3) Students will demonstrate appropriate communication, math, and employability skills	3) Industrial Project course experience assessment and the students' grades to be 70% or higher.	3) Adjust the curriculum content based on the industry representatives' and instructors' evaluation of students' final industrial projects. The faculty will implement the curriculum improvement and adjustment after working through the Cluster and Academic Affairs approval process.
Networking Administrator	1) Students will demonstrate understanding of networked environments activities.	1) 1.0 Develop case study – Plan 1	1) Review key terms, concepts, demonstrations.
	2) Students will perform troubleshooting and maintenance.	2) Demonstrate troubleshooting – LAN/WAN components.	2) Review troubleshooting techniques – tools
	3) Students will perform documentation and tech. ref. activities.	3) Produce documentation used in case study (#1).	3) Review documentation procedures – cluster and/or advisors, review written assessments, project based.
Office Administration - updated 1-30-06	1) Students will perform information processing activities.	1) Students will perform timed production tests in word processing and keyboarding labs - keyboarding 20 wpm minimum for a "C"; word processing objective and production tests on content (70% daily work on 200 documents, 30% assessment tests). These outcomes are industry standards established by advisory committee. Student will produce a portfolio of work in Advanced Word Processing.	1) Three check point periods with the student and faculty member before exam and offering students exhibiting difficulty will be given additional help. Written reminders will be given to students who are falling behind to see instructor for further help. Exit survey conducted by lad techs to measure student satisfaction. Faculty members gather all information above and re-evaluate goals on an as needed basis. When evaluating outcomes faculty will determine if those students who need help might need 6 weeks instead of 5 to complete the self-paced course in Keyboarding (advisory committee input will be solicited). Student peers and faculty member will assess student portfolios using industry standards/advisory committee.
	2) Students will perform office management activities.	2) Students feedback gathered via follow-up survey of graduates. Students passes content tests with a minimum 70% accuracy. Faculty conducts exit interviews with students during last semester. Faculty coordinates follow-up information with Career Placement Center and Admissions and records to assist in jon placement and recording that placement.	2) Faculty will use placement information to improve curriculum and placement with employers. Advisory committee input from gathered data will be used to update curriculum.

AS Program Outcomes

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	3) Students will perform communication activities.	3) Students will produce multiple documents (emails, letters, Memos, RFPs, and a critical/analytical report) with a minimum of 70% accuracy. Students will successfully make an oral presentation of the critical/analytic report using visual aids. Students will successfully participate in collaborative writing on at least two documents. Students prepares employment packet with resume, cover letter, and follow-up letter.	3) Data gathered from critique of documents, evaluation of presentation, and collaborative writing results will be summarized and presented to advisory committee to establish and improve curriculum objectives. .

