

Luzerne County Community College
Board of Trustees

Student Success & Workforce Development Committee
Action Item

Report Summary:

Additions:

The **Medical Assistant (AAS.CMA)** program will provide students the knowledge and skills necessary to sit for the certified medical assistant exam and obtain employment in a variety of medical facilities throughout the region.

The **Manufacturing Technician (D.MAT)** program will provide students a short-term training option for immediate entry into the workforce. The program has been developed with input from local industry to assist in addressing their workforce shortage.

Modifications:

The **Addiction, Treatment & Recovery (D.HSA)** program has been modified to align with external requirements for faculty and employment.

The **Computer Information Systems (AAS.CIS)** and **Computer Information Systems (AS.CIS)** programs have been modified to align with current industry standards and address changing employer needs related to operating systems knowledge.

The **Architectural Engineering Technology (AAS.AET)** program has been modified to align with current industry standards and address changing employer needs.

The **Computer Systems & Security Technology (AAS.CST), Engineering Design & Manufacturing (AAS.EDM), Mechatronics (AAS.MEC), Electronics Engineering Technology (AAS.EET, CS.EET), Computer Numerical Control Technology (CS.CNC) Industrial Maintenance (CS.INM)** and **Sustainable Energy Technology (CS.SET)** programs have been modified to align required mathematics courses with similar post-secondary programs which will provide additional opportunities for students.

The following program proposals have been approved by the Academic Committee of the Senate, the Senate, and VP of Academic Affairs. Each proposal meets all requirements for a program.

Approved Program Additions

Program Name: **Medical Assistant (AAS.CMA)**

Rationale: Address identified local workforce need which resulted from partnership in Central Susquehanna Intermediate Unit grant

Department: TBD

Total Enrollment: New program

Faculty: Fulltime – 1 in department

(This program will share full-time and adjunct faculty with current medical specialist programs.)

Department Chair:

Graduates: First Graduates May 2024

Adjunct – 5; 1.35 FTE

Program Mission/Description - The AAS degree in Medical Assisting is designed to build a sequence of medical-related courses to satisfy a specific skill for employment. This program is intended to provide a basic knowledge of the medical office and procedures that may be utilized in the physician's office. The skills acquired include scheduling patients, preparing patient records, managing financial matters, handling insurance arrangements, processing correspondence, and managing an office. Skills also include measuring vital signs, phlebotomy, electrocardiography, pulmonary function testing and laboratory procedures. The student is trained to assist doctors and patients administratively and medically in physician's offices, clinics, and hospitals, laboratories or other health service areas.

As content and skills build within the medical assistant curriculum, courses must be taken in the sequence listed in order to receive an A.A.S. Degree in Medical Assisting giving students an opportunity to pursue a position as medical assistant.

A student enrolled in this major must receive a grade of "C" or higher in those courses with the alpha-designation CMA and HIM.

Goals:

This program provides the student the opportunity to:

- Understand medical office, healthcare facilities, and health insurance operations and procedures.
- Learn the skills to assist administratively and medically in medical office health care facilities, and/or health insurance offices.

Learning Objectives:

The graduate of this program is able to:

- Use, organize, analyze and evaluate health records according to established legal and accrediting agency guidelines and standards.
- Compile, analyze, and present statistical and other health information for use by various health care professionals.
- Preserve the security and integrity of confidential patient information while maintaining access to information by those authorized to use patient information.

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- Sit for the CMA.
- Develop and maintain systems to prepare, maintain, and provide timely access to needed health information.
- Follow ICD-CM rules and regulations and code accurately.
- Use critical thinking and communication skills as necessary in the role of the medical assistant.
- Engage in measuring vital signs, phlebotomy, electrocardiography, pulmonary function testing and laboratory procedures accurately and ethically.

REQUIRED COURSES

BIO-130 or BIO-135 & 136	Basic Anatomy & Physiology	4	HPE-154	Safety & First Aid	3
EMS-207	CPR	1	MAT-105	Intermediate Algebra	3
ENG-101	English Composition	3	OMT-119	Keyboarding	1
FYE-101	First Year Experience	1	PHI-151	Ethics	3
HIM-120	Medical Terminology	3	PSY-103	General Psychology	3
HIM-133	Medical Office Procedures	3	SOC-101	Principles of Sociology	3
HIM-199 or NUR-220	Pharmacology	3	SPE-210	Intro to Interpersonal Communication	3
HIM-233	Electronic Health Records	3	CMA-110	Clinical Procedures	4
HIM-238	CPT Coding Insurance Billing	3	CMA-120	Clinical Skills	4
HIM-239	ICD-CM/PCS Coding	3	CMA-210	Laboratory Procedures	4
			CMA-220	Clinical Practicum/Review	4

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Program Name: **Manufacturing Technician (D.)**

Rationale: Address local workforce short-term training need

Department: Applied Technology

Total Enrollment: New program

Faculty: Fulltime -- 3 in department

(This department shares full-time
faculty across programs)

Department Chair: Brandon Babbish

Graduates: First Graduates May 2023

Adjunct -- 3; 0.73 FTE

Program Mission/Description - The Manufacturing Technician Diploma program is a sequence of courses that prepares students for careers in the manufacturing sector. The program emphasizes a sequence of courses with theory and practical applications necessary for successful employment. Students will be exposed to skill sets driven by employer needs. This program is designed for employer involvement. Students will be taking a sequence of course that match current employer needs. Each student will participate in an internship. Career opportunities after successful completion: technicians in an automated, production, or manufacturing environment. Students will also have the opportunity to further their careers by entering into a career pathway in the Applied Technologies.

Goals

This program provides the student the opportunity:

- To learn production techniques which are among today's high technological manufacturing environments.

Learning Objectives

The graduate of this program is able to:

- Perform industrial duties in a manufacturing environment.
- Set-up, operate, and maintain production equipment efficiency.

REQUIRED COURSES

GET-114 Industrial Workplace Safety	2	GET Elective	3
MAT-103 Applied mathematics for Industry	3	GET Elective	4
GET-299 Internship	3	CRR-101 Career Readiness	1

Approved Program Modifications

Program Name: **Addiction, Treatment & Recovery (D.HSA)**

Rationale: Update program to align with new regulations

Department: Social Science

Department Chair: Janis Wilson Seeley

Total Enrollment:

Graduates:

FA/2018 –	4	2017-18 -	0
FA/2019 -	8	2018-19 -	6
FA/2020 –	18	2019-20 -	6
FA/2021 --	13	2020-21-	5

Faculty: Fulltime – 2 in department

Adjunct – 1; 0.20 FTE

Program Mission/Description - The Diploma in Addiction, Treatment and Recovery is designed to prepare students for a career in the mental health or substance use fields. Students will acquire foundational knowledge and skills about addiction, treatment and recovery strategies; effective communication; ethics and professionalism, and cultural competence. Professionals in this field will help individuals with treatment and sustained recovery from addiction and mental health challenges.

Students who have obtained a certified recovery specialist (CRS) or certified family recovery specialist (CFRS) credential from the Pennsylvania Certification Board can transfer their credential into the program as HMS 105.

Goals

This program provides the student the opportunity:

Develop foundational knowledge and skills needed for a career in the mental health or substance use field.

Learning Objectives

The graduate of this program is able to:

- Understand addiction, treatment and recovery from historical, social, biological, environmental and psychological perspectives
- Demonstrate effective communication skills
- Apply ethical responsibility and professionalism
- Develop an understanding of cultural competence

REQUIRED COURSES

HMS 101 Introduction to Human Services	3	HMS 102 Interviewing and Counseling Skills	3
HMS 104 Foundations of Addiction and Treatment	3	HMS 105 Recovery Strategies	3
PSY 103 General Psychology	3	HMS 220 Field Work I	3

Program Name: **Computer Information Systems (AAS.CIS)**

Rationale: Update program to align with changing external factors in the workforce.

Department: Computer Information Systems Department Chair: Earl Weidner

Total Enrollment:	Graduates:
FA/2017 -- 51	2016-17 - 7
FA/2018 -- 52	2017-18 - 8
FA/2019 - 59	2018-19 - 10
FA/2020 -- 50	2019-20 - 6
FA/2021 -- 35	2020-21- 10

Faculty: Fulltime -- 3 in department Adjunct -- 8; 2.13 FTE
2 other department; 0.8 FTE

Program Mission/Description - The AAS degree in Computer Information Systems (CIS) is designed to prepare students for employment in the IT workforce as entry-level Programmers, entry-level Database Programmers, Application Analysts, Programmer Analysts, Business Analysts, System Analysts, PC Support Specialists, Technical Support, and User Support Specialists, to name a few. This program provides a strong foundation in computer programming.

Goals

This program provides the student the opportunity:

- to write computer programs in multiple languages.
- troubleshoot various computer problems.
- apply skills to the work environment.

Learning Objectives

The graduate of this program is able to:

- analyze, design, develop, test, and implement information systems to meet the functional objectives of a business.
- demonstrate proficiency in programming languages.
- use debugging techniques.

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- distinguish between hardware and software problems.
- demonstrate professional behavior.

REQUIRED COURSES

CIS 108	Intro to Computer & Programming Concepts	3	CIS 265	Internet Programming with PHP	3
CIS 110	Computer Literacy & Applications	3	CIS 290	Computer Information Systems Projects or	3
CIS 121	Operating Systems	3	CIS 299	Computer Information Systems Internship	3
CIS 141	Social Media	3	ENG 101	English Composition	3
CIS 145	Internet Concepts with HTML	3	FYE 101	First Year Experience*	1
CIS 148	Database Design with SQL	3	Health & Physical Ed or		
CIS 156	Programming with JAVA	3	EMS 207	Cardio-Pulmonary Resuscitation (CPR)	1
CIS 158	Object-Oriented Programming with C++	3	Cultural Awareness/Diversity elective		3
CIS 163	Programming with C#3	3	MAT 105	Intermediate Algebra or Higher	3
CIS 170	Management Information Systems	3	Scientific Skills elective		3
CIS 172	Systems Analysis and Design 3	3	Critical Thinking elective		3
CIS 180	Networking and Communications	3	SPE 125	Fundamentals of Speech	3

Program Name: Computer Information Systems (AS.CIS)

Rationale: Update program to align with changing external factors including transferability of program.

Department: Computer Information Systems

Department Chair: Earl Weidner

Total Enrollment:

FA/2017 --	60
FA/2018 --	57
FA/2019 -	57
FA/2020 --	63
FA/2021 --	46

Graduates:

2016-17 -	9
2017-18 -	15
2018-19 -	15
2019-20 -	11
2020-21 -	8

Faculty: Fulltime -- 3 in department
2 other department; 0.8 FTE

Program Mission/Description - The AS degree in Computer Information Systems (CIS) is designed to parallel the first two years of study required by similar majors offered at four-year colleges and universities. This program is designed for students planning to transfer to a four-year college or university for a bachelor's degree in Computer Science or Computer Information Systems. This program provides a strong foundation in computer programming. This degree will offer students an opportunity to pursue positions as

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entry-level Programmers, entry-level Database Programmers, Application Analysts, Programmer Analysts, Business Analysts, System Analysts, PC Support Specialists, Technical Support, and User Support Specialists, to name a few.

Goals

This program provides the student the opportunity:

- to write computer programs in multiple languages.
- troubleshoot various computer problems.

Learning Objectives

The graduate of this problem is able to:

- analyze, design, develop, test, and implement information systems to meet the functional objectives of a business.
- demonstrate proficiency in programming languages.
- use debugging techniques.
- distinguish between hardware and software problems.

REQUIRED COURSES

CIS 110	Computer Literacy & Applications	3	CIS 180	Networking & Communications	3
CIS 114	Database Analysis using Microsoft Access	3	CIS 265	Internet Programming with PHP	3
CIS 121	Operating Systems	3	ENG 101	English Composition	3
CIS 145	Internet Concepts with HTML	3	FYE 101	First Year Experience	1
CIS 148	Database Design with SQL	3	Health & Physical Education or EMS 207 CPR		1
CIS 156	Programming with JAVA	3	Cultural Awareness/Diversity Elective		3
CIS 158	Object-Oriented Programming with C++	3	MAT 107	Basic Statistics	3
CIS 163	Programming with C#	3	MAT 121	College Algebra or Higher Scientific Skills elective	3
CIS 170	Management Information Systems	3	Scientific Skills elective		4
CIS 172	Systems Analysis & Design	3	Critical Thinking Elective		3
			SPE 125	Fundamentals of Speech	3

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Program Name: **Architectural Engineering Technology (AAS.AET)**

Rationale: Update program to align with changing industry skill standards

Department: Applied Technology

Department Chair: Brandon Babbish

Total Enrollment:

	2016-17 -	9
FA/2017 --	26	
FA/2018 --	30	2
FA/2019 -	28	6
FA/2020 --	13	6
FA/2021 --	19	4

Graduates:

Faculty: Fulltime -- 0 in department Adjunct -- 2; 0.67 FTE

Program Mission/Description - This curriculum prepares men and women for further study or for employment opportunities as technicians in the field of architecture. In addition to positions with architectural firms, a graduate may qualify as an engineering aide, architectural draftsman or estimator. The student will acquire understanding of the theory and skills necessary to create, modify and duplicate architectural drawings utilizing varied processes including computer-assisted drafting systems.

Goals

This program provides the student the opportunity:

- -Develop skills and gain knowledge for workforce readiness or transfer to other institutions in architecture, engineering, and allied fields.

Learning Objectives

The graduate of this program is able to:

- -Prepare architectural drawings, models, and electronic images that accurately convey the quality and details of a building design.
- -Effectively present ideas, concepts, and solutions related to architectural design through spoken and written means.
- -Describe and explain the social and cultural factors that have influenced historical architectural principles.
- -Incorporate relevant precedents into architecture and urban design projects
- -Apply critical thinking, collaborative, and analytical thinking skills to the design of buildings.
- -Incorporate research skills, formal ordering systems, and conceptualization methods into the building design process.
- -Apply competencies to create technical drawing sets that illustrate structural and construction details which satisfy code requirements for residential and commercial buildings.
- -Perform calculations related to structural and mechanical engineering

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- -Perform cost estimates, prepare project schedules, and understand contracts related to professional design and construction services.
- -Describe career options and the process of becoming a licensed professional.

REQUIRED COURSES

ARC 110 – Architectural Design Graphics I	3	ARC 226 - Architectural Drafting II	3
ARC 112 – Architectural Drafting I	3	ARC 230 – BIM Design Studio	3
ARC 120 – Light-Frame Construction Methods & Materials	3	ARC 290 Architectural Engineering Tech Practicum	0
ARC 175 – Architectural Design Graphics II	3	CAD 101 – Computer Assisted Design I	3
ARC 192 – Architectural History II	3	EDM-112 3 Dimensional Modeling & Prototyping	3
ARC 205 – Architectural Design Fund. I	3	ENG 101 - English Composition	3
ARC 213 – Surveying	3	ENG-261 – Technical Communications	3
ARC 215 – Structural Analysis I	3	OR SPE-125 Fundamentals of Speech	3
ARC 216 – Structural Analysis II	3	FYE 101 – First Year Experience Health & Wellness Elective	1
ARC 219 – Estimating Architectural Methods & Processes	3	MAT 111 – Technical Mathematics I	1
		PHY 121 – Technical Physics Critical Thinking Elective	3
			4

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