

STEMM Technical Middle College at HCC ...Accelerating Your Future...

Introduction

The Science, Technology, Engineering, Math, and Medical Technical Middle College (STMC) is a collaboration between Hagerstown Community College and Washington County Public Schools. It provides an exciting and unique opportunity for highly able Washington County students to jump-start their futures by completing high school graduation requirements through an on-campus college experience. Student complete college-level credit courses to satisfy high school requirements, while simultaneously earning credits toward a college credential in a high-demand STEM field. In many cases student can earn a college certificate or 2-year degree by the time they would normally receive their high school diploma.

It is assumed that students who begin the STMC as high school juniors have completed up to 14 or more of the 24 credits required for high school graduation as a University of Maryland completer. By participating in and completing the STMC, a high school student can acquire additional high school/college dual-credits from 2 math courses, 2 English courses, a World History course and various elective courses. Students who begin STMC as seniors will, of course, have completed more required high school credits than students who begin as juniors and will therefore need fewer dual-credit courses to graduate.

The program pathways included are representations of what can be accomplished in two years of STMC. Some courses listed in the program pathways will meet specific high school diploma requirements; however, all courses will count for college credit as either program requirements, general education requirements, or electives. Juniors and seniors in the STMC will meet with the STMC Coordinator/Counselor to review specific academic/career plans at least four times/year to set schedules based on the exact courses needed.

Actual student program schedules may vary somewhat from the examples given.

The following considerations may affect student schedules and time to completion:

- Courses (especially math and science) already completed (high school and ESSENCE) or completed during summer sessions.
- High School grade-level status (Junior or Senior) when entering STMC.
- Courses accepted for high school credit.
- Course/program electives required by preferred future transfer institutions.
- Changing to a different program prior to program completion.
- General Education and Elective selections, depending on availability and student interest.

For students who are willing and able, the HCC/WCPS STEMM Technical Middle College can be two years that will revolutionize their academic, intellectual and professional lives.



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Associate of Applied Science (A.A.S.) - Advanced Manufacturing

First Year Fall			
Course Number	Course Name	Credits	
*ENG 101	*English Composition	3	
*MAT 101 or MAT 114	*College Algebra or Introduction to Applied Algebra	3	
ELE 158	Circuits, Schematics, and Test Equipment	3	
INT 101	Introduction to Industrial Technology	3	
ELE 110	Fundamentals of Electricity	4	
SOCI 104-Cohort	Sociology of Science and Technology	1.5	
TOTAL		17.5	
Second Year Fall			
Course Number	Course Name	Credits	
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3	
*PHY 201	*General Physics I	4	
ADM 201	Lean Manufacturing and Quality Assurance	2	
CSC 132	Introduction to C and C++ Programming	3	
ELE 203	PLC Applications	3	
TOTAL		15	

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
ELE 113	Instrumentation and Process Control I	3
ELE 103	Analog and Digital Electronics	3
ADM 258	Advanced Motors, Machines, and Devices	3
INT 102	Introduction to PLCs	3
SOCI 104-Cohort	Sociology of Science and Technology	1.5
		16.5
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Diversity	3
*HIS 102	*World History II	3
EGT 150	Introduction to CNC Programming	3
EGT 235 or ADM 269	Fluid Power or Internship	3
ELE 140	Introduction to Robotics	3
TOTAL		15



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Associate of Applied Science (A.A.S.) - Alternative Energy Technology

First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 114	*Introduction to Applied Algebra	3
INT 101	Introduction to Industrial Technology	3
ELE 110	Fundamentals of Electricity	4
AET 102	Introduction to Alternative Energy	3
SOCI 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		17.5
Second Year Fall		
Course Number	Course Name	Credits
*HIS 102	*World History II	3
* PHY 201	* General Physics I	4
AET 106	Photovoltaic Installation	3
AET 101	Applied Mathematics for Technology	1
BUS 145	Customer Service	1
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		15

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	:
ELE 113	Instrumentation and Process Control	3
INT 105	Plumbing and Pipefitting	3
INT 104	Facilities Safety and Compliance	3
INT 107	Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC)	3
SOCI 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		16.5
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Diversity	3
INT 111	Pump and Motor Operation and Maintenance	3
AET 108	Wind Energy Installation	3
AET 104	Geo-Thermal Installation	3
Restricted Elective	Choose from the list	3
TOTAL		15



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Associate of Applied Science (A.A.S.) - Biotechnology

First Year Fall			
Course Number	Course Name	Credits	
*ENG 101	*English Composition	3	
*MAT XX	*Choose from approved high school list	3	
BIO 113	Principles of Biology	4	
*CHM 101 or 103	*Introductory College Chemistry or General Chemistry I	4	
SOCI 104-Cohort	Sociology of Science and Technology	1.5	
TOTAL		15.5	
Second Year Fall			
Course Number	Course Name	Credits	
BIO 205	Microbiology	4	
BTC 201	Discovery Research	4	
*HIS 102	*World History II	3	
Restricted Elective	Choose from the list	4	
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3	
TOTAL		18	

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
BTC 101	Introduction to Biotechnology	3
BIO 201	Cellular Biology and Genetics	4
*MAT 109	*Introduction to Statistics	3
SOCI 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Diversity	3
Restricted Elective	Choose from the list	4
BTC 202	Biomanufacturing	4
BTC 269	Internship	3
Restricted Elective	Choose from the list	4
TOTAL		18



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Associate of Applied Science (A.A.S.) - Cybersecurity

First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT XX	*Math course from approved high school list	3
IST 108	Microsoft Operating System	3
CYB 101	Introduction to Cybersecurity	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
*HIS 102	*World History II	3
TOTAL		16.5

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
IST 109	UNIX/Linux Operating System	3
IST 154	Networking Basics	3
IST 160	Introduction to Security Fundamentals	3
CYB 210	Ethics in the Information Age	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		16.5

Second Year Fall		
Course Number	Course Name	Credits
IST 155	Networking I	4
IST 156	Networking II	4
CYB 225	Tactical Perimeter Defense	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
CYB 240	Ethical Hacking Fundamentals	3
TOTAL		17

Second Year Spring			
Course Number	Course Name	Credits	
*Gen Ed	*Biological/Physical Science with a lab from approved high school list	4	
Gen Ed	Diversity	3	
IST 261	Server Management I	3	
CYB 246	Introduction to Cloud Computing	3	
TOTAL		13	



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	Associate	of Applied Science	ce (A.A.S.) in Dental Hygiene
		Middle	e College
First Year Fall			First Year Spring
Course Number	Course Name	Credits	Course Number
*ENG 101	English Composition	3	SPD 108
*MAT XX	Mathematics from approved high school list (MAT 109 preferred)	3	*HIS 102
BIO 116	Human Anatomy and Physiology for Allied Health	4	PSY 101
*CHM 101	Introductory College Chemistry	4	BIO 205
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3	
TOTAL		17	TOTAL
Second Year Fall			Second Year Spring
Course Number	Course Name	Credits	Course Number
DHY 101	Dental Hygiene Theory I	2	DHY 110
DHY 102	Dental Hygiene Clinical I	2	DHY 111
DHY 104	Dental Radiology	3	DHY 112
DHY 108	Head, Neck and Oral Anatomy	4	DHY 113
			DHY 116
TOTAL		11	TOTAL
Third Year Fall			Third Year Spring
Course Number	Course Name	Credits	Course Number
DHY 201	Dental Hygiene Theory III	2	DHY 210
DHY 202	Dental Hygiene Clinical III	3	DHY 211
DHY 203	Periodontics and Advanced Procedures	4	DHY 220
DHY 204	Pain Management in Dental Hygiene	2	DHY 221
DHY 205	Nutrition and Biochemistry in Dentistry	2	
TOTAL		13	TOTAL
	•		

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First Year Spring		
Course Number	Course Name	Credits
SPD 108	Introduction to Human Communication	3
*HIS 102	World History II	3
PSY 101	General Psychology	3
BIO 205	Microbiology	4
TOTAL		13
Second Year Spring		
Course Number	Course Name	Credits
DHY 110	Dental Hygiene Theory II	2
DHY 111	Dental Hygiene Clinical II	2
DHY 112	Dental Materials and Procedures	2
DHY 113	General and Oral Pathology	2
DHY 116	Dental Pharmacology	2
TOTAL		10
Third Year Spring		
Course Number	Course Name	Credits
DHY 210	Community Dental Health	2
DHY 211	Dental Hygiene Ethics and Jurisprudence	1
DHY 220	Dental Hygiene Theory IV	2
DHY 221	Dental Hygiene Clinical IV	4
TOTAL		9



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Associate of Applied Science (A.A.S.) - Digital Instrumentation and Process Control

First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 101 or 114	*College Algebra or Introduction to Applied Algebra	3
ELE 110	Fundamentals of Electricity	3
INT 101	Introduction to Industrial Technology	3
IST 102	Introduction to Information Technology	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		16.5
Second Year Fall		
Course Number	Course Name	Credits
ELE 205	Repair and Maintenance for Instrumentation	2
ELE 210	Energy System Management	3
ELE 213	Instrumentation and Process Control II	3
*PHY 201	*General Physics I	4
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		15

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
ELE 101	Device Data System Architectures	3
ELE 103	Analog and Digital Electronics	3
ELE 113	Instrumentation and Process Control I	4
INT 102	Introduction to PLCs	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		17.5
Second Year Spring		
Course Number	Course Name	Credits
*HIS 102	*World History II	3
Gen Ed	Diversity	3
ELE 235	Advanced Concepts and Applications of Instrumentation and Controls	3
Restricted Elective	Choose from the list	3
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TOTAL		15



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Associate of Applied Science (A.A.S.) - Mechanical Engineering Technology

First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 114 or 102	*Introduction to Applied Algebra or Trigonometry	3
Gen Ed	Diversity	3
EGT 235	Fluid Power	3
CAD 152	Computer-Aided Design	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		16.5
Second Year Fall		
Course Number	Course Name	Credits
*PHY 201	*General Physics I	4
EGT 234	Machine Design	4
*HIS 102	*World History II	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		14

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	
EGT 231	Strength of Materials	
CAD 153	Computer-Aided Drafting	
EGT 136	Mechanics	
EGT 101	Foundations of Engineering	
SOC 104-Cohort	Sociology of Science and Technology	1.
TOTAL		15.
Second Year Spring		
Course Number	Course Name	Credits
PHY 202	General Physics II	
Restricted Elective	Choose from the list	
Restricted Elective	Choose from the list	
Restricted Elective	Choose from the list	
TOTAL		1



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Technical Middle College

	Associate of	of Applied Science (A.A.S	S.) - Paramedic Emergency Se	ervices
First Year Fall			First Year Spring	
Course Number	Course Name	Credits	Course Number	C
*ENG 101	English Composition	3	*ENG 102	a
*MAT 101 or 114	College Algebra or Introduction to Applied Algebra	3	*HIS 102	4
*BIO 103	*Human Anatomy and Physiology	4	BIO 104	ŀ
PSY 101 or SOC 101	General Psychology or Intro to Sociology	3	Gen Ed	[
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3		
TOTAL		16	TOTAL	
Summer				
Course Number	Course Name	Credits		
EMS 151	Introduction to Emergency Medical Services	3		
EMS 155	Anatomy and Physiology for EMS Providers	4		
EMS 181	EMS Practicum	1		
TOTAL		8		
Second Year Fall			Second Year Spring	
Course Number	Course Name	Credits	Course Number	C
EMS 163	Medical Emergencies I	3	EMS 201	9
EMS 164	Cardiology and Cardiovascular Diseases	4	EMS 211	F
EMS 182	EMS Practicum II	3	EMS 220	E
EMS 210	Medical Emergencies II	3	EMS 221	9
EMS 161	Airway Management	3	EMS 281	E
			EMS 282	E
TOTAL		16	TOTAL	

First Year Spring	First Year Spring		
Course Number	Course Name	Credits	
*ENG 102	*Composition and Literature	3	
*HIS 102	*World History II	3	
BIO 104	Human Anatomy and Physiology II	4	
Gen Ed	Diversity	3	
TOTAL		13	

Second Year Spring		
Course Number	Course Name	Credits
EMS 201	Shock Trauma Resuscitation	2
EMS 211	Pediatrics and Special Populations	2
EMS 220	EMS Operations	2
EMS 221	Seminar in Paramedic Emergency Services	2
EMS 281	EMS Practicum III	3
EMS 282	EMS Practicum IV	3
TOTAL		14



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College		
		Associate of Applied S
First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT XX	*Choose from approved high school list	3
*BIO 103	*Human Anatomy and Physiology I	4
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		13
First Summer		
Course Number	Course Name	Credits
RAD 101	Radiography I	3
RAD 103	Radiographic Positioning II	3
TOTAL		6
Second Year Fall		·
Course Number	Course Name	Credits
RAD 102	Radiography II	3
RAD 104	Radiographic Positioning II	3
RAD 106	Clinical Technique I	2
TOTAL		8
Second Summer		
Course Number	Course Name	Credits
RAD 200	Clinical Practicum	3
BIO 202	Radiation Biology	2
RAD 110	Venipuncture for Radiographers	1
TOTAL		6
Third Year Fall		
Course Number	Course Name	Credits
RAD 201	Radiographic Imaging Concepts	3
RAD 202	Advanced Medical Imaging Concepts	3
RAD 212	Cross-Sectional Anatomy	:
RAD 205	Clinical Technique III	3
TOTAL		12

ience	nce (A.A.S.) in Radiography				
	First Year Spring				
	Course Number	Course Name	Credits		
	*ENG 102	*Composition and Literature	3		
	*HIS 102	*World History II	3		
	BIO 104	Human Anatomy and Physiology II	4		
	PSY 101	General Psychology	3		
	TOTAL		13		

Second Year Spring			
Course Number	Course Name	Credits	
RAD 105	Radiographic Positioning III	3	
RAD 108	Clinical Technique II	2	
PHY 106	Radiological Physics Theory	3	
TOTAL		8	

Third Year Spring		
Course Number	Course Name	Credits
RAD 215	Pathology for Imaging Sciences	3
RAD 111	Clinical Technique IV	3
RAD 228	Review Seminar	3
TOTAL		9



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	Associate of Applied Science (A.A.S.) in Informa	tion System	ns Tec	hnology, Option in Simulation	and Digital Entertainment
First Year Fall				First Year Spring	
Course Number	Course Name	Credits	C	Course Number	Course Name
*ENG 101	*English Composition	3	4	*ENG 102	*Composition and Literature
*MAT XX	*Choose from approved high school list	3	S	SDE 102	Multimedia Authoring
IST 102	Introduction to Information Technology	3	S	SDE 130	Introduction to Object Oriente
GDT 112	Computer Graphics	3	F	Restricted Elective	Choose from the list
WEB 101	Web Design I	3	S	SOCI 104-Cohort	Sociology of Science and Tech
SOCI 104-Cohort	Sociology of Science and Technology	1.5	4	*HIS 102	*World History II
TOTAL		16.5	1	TOTAL	
Second Year Fall			9	Second Year Spring	
Course Number	Course Name	Credits		Course Number	Course Name
*Gen Ed	*Biological/Physical Science with a lab from approved high school list	4	c	Gen Ed	Diversity
CSC 132or GDT 116 or WEB 215	Introduction to C and C++ Programming or Digital Imaging or Javascript and Mulitmedia	3	S	SDE 207	Multimedia Project Developm
SDE 201	Multimedia Algorithms	3	S	SDE 104 or GDE 142	Game Programming I or Comp
Restricted Elective or SDE 203 or WEB 115	Choose from the list or 3D Avanced Animation or Web Developer I	3	S	SDE 205 or Restricted Elective	Game Programming II or Choo
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3	F	Restricted Elective	Choose from the list
TOTAL		16	1	TOTAL	

First Year Spring		
		Т
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	\$
SDE 102	Multimedia Authoring	3
SDE 130	Introduction to Object Oriented Programming	(1)
Restricted Elective	Choose from the list	3
SOCI 104-Cohort	Sociology of Science and Technology	1.5
*HIS 102	*World History II	3
TOTAL		16.5
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Diversity	3
SDE 207	Multimedia Project Development	3
SDE 104 or GDE 142	Game Programming I or Computer Illustration	3
SDE 205 or Restricted Elective	Game Programming II or Choose from the list	3
Restricted Elective	Choose from the list	3
TOTAL		15



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Associate of Applied Science (A.A.S.) - Web and Multimedia Technology Middle College

First Year Fall Credits Course Number Course Name *ENG 101 *English Composition *MAT XX *Math course from approved high school list WEB 101 Web Design I GDT 112 Computer Graphics SOC 104-Cohort Sociology of Science and Technology 1.5 TOTAL 13.5 Second Year Fall

Course Number	Course Name	Credits
*Gen Ed	*Biological/Physical Science with a lab from the approved high school list	4
*HIS 102	*World History II	3
WEB 215	JavaScript and Multimedia	3
WEB 210	Web Developer II	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		16

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
IST 173	Database Fundamentals	3
WEB 115	Web Developer I	3
WEB 110	Web Design II	3
GDT 116	Digital Imaging	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		16.5
Second Year Spring		
Course Number	Course Name	Credits
BUS 101	Introduction to Business Organization and Management	3
STU 106	Professionalism in the Workplace	1
WEB 220	Introduction to Content Management Systems	2
Restricted Elective	Choose from the list	3
Restricted Elective	Choose from the list	3
Elective	Choose in consultation with an advisor	2
TOTAL		14



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Associate of Science (A.S.) - Arts and Sciences, Option in Biology

		wiida
First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT XX	*Math course from approved high school list	3
*CHM 103	*General Chemistry I	4
BIO 113	Principles of Biology I	4
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		15.5
Second Year Fall		
Course Number	Course Name	Credits
*HIS 102	*World History II	3
CHM 203 and/or PHY 201	Organic Chemistry I and/or General Physics I	4
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
Elective	If not completing both Organic Chemistry and Physics sequences	4
TOTAL		14

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	
Gen Ed	Arts/Humanities (in different discipline than HUM)	
CHM 104	General Chemistry II	
BIO 114	Principles of Biology II	
SOC 104-Cohort	Sociology of Science and Technology	1
TOTAL		15
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Diversity	
CHM 204 and/or PHY 202	Organic Chemistry II and/or General Physics II	
BIO 201 or 205	Cell Biology and Genetics or Microbiology	
Elective	If not completing both Organic Chemistry and Physics sequences	
TOTAL		:



Stay close. Go ta

STEMM Technical Middle College This is a *sample* student pathway for the Hagerstown Community College Science, Technology, Engineering, Math, and Medical Careers (STEMM) Middle College. A Middle College student's pathway may vary according to the number and type of high school credits already earned. These pathways assume that a Middle College student has already earned the following high school credits: 2 English, 2 Mathematics, 2 Social Studies, 2 Science, 1 Fine Arts, 1 Technology Education, 1 Physical Education, 1 Health/Life Skills, and 1 Elective. Please note the level of math/chemistry required to start the program.

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Associate of Science (A.S.) - Arts and Sciences, Option in Chemistry

First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 203	*Calculus I	4
*CHM 103	*General Chemistry I	4
Gen Ed	Arts/Humanities (in a different discipline than HUM)	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		15.5
Second Year Fall		
Course Number	Course Name	Credits
Gen Ed	Diversity	3
CHM 203	Organic Chemistry I	4
PHY 201 or PHY 203	General Physics I or Principles of Physics I (5 credits)	4
Elective	Choose in consultation with advisor	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		17

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
*HIS 102	*World History II	3
CHM 104	General Chemistry II	4
Elective	Choose in consultation with advisor	2
SOC 104-Cohort	Sociology of Science and Technology	1.5
		13.5
Second Year Spring		
Course Number	Course Name	Credits
Elective	Choose in consultation with advisor	3
CHM 204	Organic Chemistry II	4
PHY 202 or PHY 204	General Physics II or Principles of Physics (5 credits)	4
Elective	Choose in consultation with advisor	3
TOTAL		14



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Associate of Science (A.S.) - Computer Science

Middle College

First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 203	*Calculus I	4
Gen Ed	Diversity	3
CSC 102	Introduction to Information Technology	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Fall		
Course Number	Course Name	Credits
*Gen Ed	*Biological/Physical Science with lab from the approved high school list	4
CSC 132 or 134	Introduction to C and C++ Programming OR Introduction to JAVA Programming	3
Restricted Elective	Choose from List 2	4
*HIS 102	*World History II	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		17

Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
Gen Ed	Arts/Humanities (in a different discipline than HUM)	3
Elective	Choose in consultation with advisor	3
Restricted Elective	Choose from List 2	4
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Biological/Physical Science (of your two Science requirements, one must have a lab)	3
Elective	Choose in consultation with advisor	2
Elective	Choose in consultation with advisor	3
Elective	Choose in consultation with advisor	3
Restricted Elective	Choose from List 1	3
TOTAL		14

List 1: CSC 109, CSC 202, CSC 232, IST 154, IST 160 List 2: MAT 204, MAT 206, MAT 207, MAT 208



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Associate of Science (A.S.) - Cybersecurity

First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT XX	*Math course from approved high school list	3
Gen Ed	Diversity	3
CYB 101	Introduction to Cybersecurity	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		13.5
Second Year Fall		
Course Number	Course Name	Credits
Gen Ed	Biological/Physical Science (of your two Science requirements, one must have a lab)	3
CSC 132	Introduction to C and C++ Programming	3
CYB 210	Ethics in the Information Age	3
IST 166	Computer Forensics I - Principles and Practices	3
*HIS 102	*World History II	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		18

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	:
*Gen Ed	*Biological/Physical Science from the approved high school list	
IST 154	Networking Basics	:
IST 160	Introduction to Security Fundamentals	:
SOC 104-Cohort	Sociology of Science and Technology	1.9
TOTAL		14.
Second Year Spring		
Course Number	Course Name	Credits
Restricted Elective	Choose from the list	:
Gen Ed	Arts/Humanities (in a different discipline than HUM)	:
CYB 225	Tactical Perimeter Defense	:
Restricted Elective	Choose from the list	:
Elective	Choose in consultation with an advisor	-
TOTAL		14



STEMM Technical Middle

College

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Associate of Science (A.S.) in Engineering

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Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 203	*Calculus I	4
*HIS 102	*World History II	3
EGR 103	Introduction to Engineering	3
SOCI 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Fall		
Course Number	Course Name	Credits
Gen Ed	Arts/Humanities (in a different discipline from the first	3
*PHY 203	*Principles of Physics I	5
Restricted Elective	Choose from the list (3-4 credits)	4
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		15

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
MAT 204	Calculus II	4
Gen Ed	Diversity	3
EGR 108	Statics	3
SOCI 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Spring		
Course Number	Course Name	Credits
PHY 204	Principles of Physics II	5
MAT 206	Differential Equations	4
EGR 203, 204, or 208	Mechanics of Materials or Dynamics or Systems and Circuits	3
Restricted Elective	Choose from the list (3-4 credits)	4
TOTAL		16



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Associate of Science (A.S.) - Arts and Sciences, Option in Mathematics

Course Number	Course Name	Credits
Course Number	Course Marite	Credits
*ENG 101	*English Composition	1
*MAT 203	*Calculus I	4
Gen Ed	Diversity	3
Elective	Choose in consultation with advisor	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Fall		
Course Number	Course Name	Credits
*HIS 102	*World History II	3
*Gen Ed	*Biological/Physical Science with lab from the approved high school list	4
MAT 207 or 208	Discrete Math or Linear Algebra	4
Elective	Choose in consultation with advisor	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
Gen Ed	Arts/Humanities (in different discipline than HUM)	3
MAT 204	Calculus II	4
Elective	Choose in consultation with advisor	3
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Biological/Physical Science with a lab	4
MAT 205 or MAT 206	Calculus III or Differential Equations	4
Elective	Choose in consultation with advisor	3
Elective	Choose in consultation with advisor	3
TOTAL		14



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»Please Note: Some courses may have an age requirement to enroll«

	Associ	ate of Science in Arts and S	ciences (A.S.) in Nursing (R	egistered Nurse)
First Year Fall			First Year Spring	
Course Number	Course Name	Credits	Course Number	Course Na
*ENG 101	*English Composition	3	*ENG 102	*Composit
*MAT XX	*Mathematics	3	*HIS 102	*World Hi
*BIO 103	*Human Anatomy and Physiology I	4	PSY 204	Developm
PSY 101	General Psychology	3	BIO 104	Human Ar
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3	CHM 101	Introducto
TOTAL		16	TOTAL	
Second Year Fall			Second Year Spring	
Course Number	Course Name	Credits	Course Number	Course Na
SOC 101	Introduction to Sociology	3	BIO 205	Microbiolo
NUR 116	Foundations of Nursing I	3	NUR 127	Nursing Ca
NUR 117	Foundations of Nursing II	6	NUR 229	Nursing Ca
TOTAL		12	TOTAL	
Third Year Fall			Third Year Spring	
Course Number	Course Name	Credits	Course Number	Course Na
NUR 126	Nursing Care of Women and Infants	4	NUR 230	Nursing Ca
NUR 226	Behavioral Health Nursing	4	NUR 228	Contempo
NUR 224	Pharmacology for Nursing Practice	2	NUR 231	Nursing Ca
TOTAL		10	TOTAL	

	•	
First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
*HIS 102	*World History II	3
PSY 204	Developmental Psychology: Lifespan Human Development	3
BIO 104	Human Anatomy and Physiology II	4
CHM 101	Introductory College Chemistry (Only if HS Chemistry has not been taken)	
TOTAL		13
Second Year Spring		
Course Number	Course Name	Credits
BIO 205	Microbiology	4
NUR 127	Nursing Care of Children	4
NUR 229	Nursing Care of the Acute and Chronically II Adult	4
TOTAL		12
Third Year Spring		
Course Number	Course Name	Credits
NUR 230	Nursing Care of the Acute and Chronically III Adult II	4
NUR 228	Contemporary Trends in Nursing and Leadership	2
NUR 231	Nursing Care of the Acute and Chronically III Adult III	4
TOTAL		10
	•	



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Associate of Science (A.S.) - Arts and Sciences, Option in Physics

		Midd
First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 203	*Calculus I	4
Gen Ed	Diversity	3
*PHY 203	*Principles of Physics I	5
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		16.5
Second Year Fall		
Course Number	Course Name	Credits
*HIS 102	*World History II	3
Gen Ed	Arts/Humanities (in a different discipline than HUM)	3
Elective	Choose in consultation with advisor	3
Elective	Choose in consultation with advisor	3
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		15

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	3
PHY 204	Principles of Physics II	į
PHY 205	Principles of Physics III	-
MAT 204	Calculus II	4
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		14.5
Second Year Spring		
Course Number	Course Name	Credits
Elective	Choose in consultation with advisor	3
MAT 205	Calculus III	4
MAT 206	Differential Equations	4
Elective	Choose in consultation with advisor	3
TOTAL		14



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Associate of Science (A.S.) - Arts and Sciences, Option in Pre-Pharmacy

		Middl
First Year Fall		
Course Number	Course Name	Credits
*ENG 101	*English Composition	3
*MAT 203	*Calculus I	4
*CHM 103	*General Chemistry I	4
Restricted Elective	Choose from the list	4
SOC 104-Cohort	Sociology of Science and Technology	1.5
TOTAL		16.5
Second Year Fall		
Course Number	Course Name	Credits
*HIS 102	*World History II	3
CHM 203	Organic Chemistry I	4
PHY 201	General Physics I	4
HUM 104-Cohort	The Arts and Sciences-A Curious Continuum	3
TOTAL		14

First Year Spring		
Course Number	Course Name	Credits
*ENG 102	*Composition and Literature	
Gen Ed	Arts/Humanities (in a different discipline than HUM)	
CHM 104	General Chemistry II	
BIO 205	Microbiology	
SOC 104-Cohort	Sociology of Science and Technology	1.
TOTAL		15.
Second Year Spring		
Course Number	Course Name	Credits
Gen Ed	Diversity	
CHM 204	Organic Chemistry II	
Restricted Elective	Choose from the list	
Restricted Elective	Choose from the list	
TOTAL		1