

SURGICAL TECHNOLOGY

Diploma, 52 Credit Hours, 11-Month Program

The mission of the Surgical Technology program is to provide students with the knowledge, skills, and dedication necessary to become successful, valuable, and effective surgical technologists in the communities that they serve.

Surgical technologists are vital members of the surgical team and are involved in all aspects of a patient's care while in surgery. Surgical technologists are relied upon by surgeons, nurses, anesthesia providers, and numerous other healthcare professionals to be the technical specialists in a vast area of expertise. Surgical technologists use a wide variety of knowledge and abilities in surgical sciences, anatomy and physiology, microbiology, and patient care to provide vital support to the patient and the surgical team. The discipline of surgery is an ever-changing arena of healthcare, making considerable leaps in technology, techniques, and interventions almost daily. Surgical technologists stand at the leading edge of this revolution, using their professionalism, expertise, and abilities to make a difference.

Course No.	Course Title	Credits
General Education Requirements		
CIS 100	INTRODUCTION TO KEYBOARDING <i>or</i>	1
CIS 114	POWERPOINT, LEVEL I	
CIS 109	WORD, LEVEL I	1
CIS 112	EXCEL, LEVEL I	1
ENGL 101	COMPOSITION	3
ORT 010	ORIENTATION	1
PSYC 101	GENERAL PSYCHOLOGY	3
	Total	10
Technical Requirements		
HC 113	MEDICAL TERMINOLOGY FOR THE HEALTH PROFESSIONS	2
HC 114	ANATOMY/PHYSIOLOGY FOR THE HEALTH PROFESSIONS	3
HC 117	MICROBIOLOGY FOR THE HEALTH SCIENCES	3
ST 102	INTRO TO SURGICAL TECHNOLOGY	3
ST 111	INTRO TO SURGICAL TECHNOLOGY LAB	3
ST 125	PRINCIPLES & PRACTICES OF SURGICAL TECHNOLOGY	3
ST 126	SURGICAL PROCEDURES	7
ST 127	SCIENCE & TECHNOLOGIES FOR THE SURGICAL TECHNOLOGIST	1
ST 128	SURGICAL PHARMACOLOGY	2
ST 135	CLINICAL PRACTICE	3
ST 136	CLINICAL PRACTICE II	6
ST 137	CLINICAL PRACTICE III	6
	Total	42

Prerequisite: Successful completion of first semester health courses is a prerequisite to second semester health courses.

*Prerequisite: Acceptable COMPASS score or Basic Writing.

Semester Breakdown

First Semester			Second Semester		
		CR			CR
CIS 109	Word, Level I	1	ST 128	Surgical Pharmacology	2
CIS 100	Introduction to Keyboarding <i>or</i>	1	ST 126	Surgical Procedures	7
CIS 114	PowerPoint, Level I		ST 125	Principles & Practices of Surgical Technology	3
ST 102	Introduction to Surgical Technology	3	ST 127	Science & Technologies for the Surgical Technologist	1
ST 111	Introduction to Surgical Technology Lab	3	ST 135	Clinical Practice	3
HC 113	Medical Terminology for the Health Professions	2	CIS 112	Excel, Level I	1
HC 114	Anatomy/Physiology for the Health Professions	3	PSYC 101	General Psychology	3
HC 117	Microbiology for the Health Sciences	3		Total Credit Hours	20
ORT 010	Orientation	1			
ENGL101	Composition	3			
	Total Credit Hours	20			
Third Semester (Summer)					
		CR			
ST 136	Clinical Practice II	6			
ST 137	Clinical Practice III	6			
	Total Credit Hours	12			

TRANSPORTATION TECHNOLOGY

Associate in Applied Science, 71/73 Credit Hours, 18-Month Program

The Transportation Technology Program will provide education in most types of land transportation, vehicles, and construction equipment to include cars, trucks, tractors, construction equipment, and mining equipment. Students will have the option of selecting light vehicle or heavy equipment tracks. This program will provide a broader preparation for the mechanical occupations with separate focuses on lighter and heavy duty vehicles.

Course	No.	Course Title	Credits
General Education Requirements			
CIS	109	WORD, LEVEL I	1
CIS	112	EXCEL, LEVEL I	1
CIS	114	POWERPOINT, LEVEL I	1
CPR	100	CPR/FIRST RESPONDER	1
ECN	202	PRINCIPLES OF ECONOMICS (MACRO) <i>or</i>	3
SOC	100	INTRODUCTION TO SOCIOLOGY	
ENGL	101	COMPOSITION* <i>or</i>	3
ENGL	201	TECHNICAL WRITING I*	
ENGL	102	CAREER COMMUNICATIONS <i>or</i>	2/
ENGL	202	TECHNICAL COMMUNICATIONS	3
MATH	104	TECHNICAL MATH**	3
ORT	010	ORIENTATION	1
PSYC	101	GENERAL PSYCHOLOGY <i>or</i>	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
Total			19/20
Technical Requirements for Light Duty			
ATT	112	CHASSIS & STEERING	4
ATT	113	BRAKE SYSTEMS	4
ATT	114	STANDARD TRANS & FINAL DRIVE	3
ATT	226	AIR CONDITIONING	2
ATT	232	ENGINE OVERHAUL	4
ATT	233	AUTOMATIC TRANSMISSIONS	5
TTT	100	OCCUPATIONAL SKILLS	2
TTT	102	INTRODUCTION TO ELECTRONICS	3
TTT	103	VEHICLE ELECTRONICS	3
TTT	104	STARTING & CHARGING SYSTEMS	2
TTT	107	ENGINE PERFORMANCE & DRIVABILITY	4
TTT	115	ENGINE CONSTRUCTION & OPERATION	3
TTT	118	ELECTRONIC FUEL INJECTION	6
TTT	120	SHOP & PARTS MANAGEMENT	1
TTT	121	INTRO TO HYBRIDS	1
TTT	122	CHASSIS WIRING	1
TTT	129	WELDING & EQUIPMENT	2
DMS	205	HYDRAULICS	3
Total			53
Technical Requirements for Heavy Duty			
DMS	126	DRIVE TRAIN	3
DMS	127	HVAC	2
DMS	203	DIESEL ENGINES	4
DMS	205	HYDRAULICS	3
DMS	228	CDL TRAINING (CLASS B) <i>or</i>	3
DMS	299	INTERNSHIP	
DMS	230	STEERING & SUSPENSION	4
DMS	234	BRAKES	4
TTT	100	OCCUPATIONAL SKILLS	2
TTT	102	INTRODUCTION TO ELECTRONICS	3
TTT	103	VEHICLE ELECTRONICS	3
TTT	104	STARTING & CHARGING SYSTEMS	2
TTT	107	ENGINE PERFORMANCE & DRIVABILITY	4
TTT	115	ENGINE CONSTRUCTION & OPERATION	3
TTT	118	ELECTRONIC FUEL INJECTION	6
TTT	129	WELDING & EQUIPMENT	2
TTT	130	PREVENTATIVE MAINTENANCE	3
Total			51

*Prerequisite: Acceptable COMPASS score or Basic Writing.

**Prerequisite: Acceptable COMPASS score or Basic Math.

Semester Breakdown Light Duty

First Semester			Second Semester		
		CR			CR
TTT 100	Occupational Skills	2	TTT 107	Engine Performance	4
TTT 102	Introduction to Electronics	3	TTT 118	Electronic Fuel Injection	6
TTT 103	Vehicle Electronics	3	TTT122	Chassis Wiring	1
TTT 104	Starting & Charging Systems	2	TTT 121	Intro to Hybrids	1
TTT 115	Engine Construction & Operation	3	TTT 120	Shop & Parts Management	1
CIS 109	Word, Level I	1	CPR 100	CPR/First Responder	1
CIS 112	Excel, Level I	1	MATH 104	Technical Mathematics	3
CIS 114	PowerPoint, Level I	1		Total Credit Hours	17
ORT 010	Orientation	1			
	Total Credit Hours	17			
Third Semester			Fourth Semester		
		CR			CR
ATT 112	Chassis & Steering	4	ATT 226	Air Conditioning	2
ATT 113	Brake Systems	4	ATT 232	Engine Overhaul	4
ATT 114	Standard Trans & Final Drive	3	ATT 233	Automatic Transmissions	5
TTT 129	Welding & Equipment	2	DMS 205	Hydraulics	3
ECN 202	Principles of Economics-Macro	3	ENGL 102	Career Communication <i>or</i>	2/
	<i>or</i>		ENGL 202	Technical Communications	3
SOC 100	Introduction to Sociology		PSYC 101	General Psychology <i>or</i>	3
ENGL101	Composition <i>or</i>	3	PSYC 103	Human Relations in the Workplace	
ENGL201	Technical Writing I			Total Credit Hours	19/
	Total Credit Hours	19			20

Semester Breakdown Heavy Duty

First Semester			Second Semester		
		CR			CR
TTT 100	Occupational Skills	2	TTT 107	Engine Performance	4
TTT 102	Introduction to Electronics	3	TTT 118	Electronic Fuel Injection	6
TTT 103	Vehicle Electronics	3	TTT 130	Preventative Maintenance	3
TTT 104	Starting & Charging Systems	2	CPR 100	CPR/First Responder	1
TTT 115	Engine Construction & Operation	3	MATH 104	Technical Mathematics or Higher	3
CIS 109	Word, Level I	1		Total Credit Hours	17
CIS 112	Excel, Level I	1			
CIS 114	PowerPoint, Level I	1			
ORT 010	Orientation	1			
	Total Credit Hours	17			
Third Semester			Fourth Semester		
		CR			CR
DMS 234	Brakes	4	DMS 127	HVAC	2
DMS 126	Drive Train	3	DMS 203	Diesel Engines	4
DMS 205	Hydraulics	3	DMS 228	CDL Training (Class B) <i>or</i>	3
DMS 230	Steering & Suspension		DMS 299	Internship	
ECN 202	Principles of Economics-Macro	4	TTT 129	Welding & Equipment	2
	<i>or</i>	3	ENGL 102	Career Communications <i>or</i>	2/
SOC 100	Introduction to Sociology		ENGL 202	Technical Communications	3
ENGL 101	Composition <i>or</i>		PSYC 101	General Psychology <i>or</i>	3
ENGL 201	Technical Writing I	3	PSYC 103	Human Relations in the Workplace	
	Total Credit Hours	20		Total Credit Hours	16/
					17

WELDING MANUFACTURING

Associate in Applied Science, 73 Credit Hours, 20-Month Program

Diploma, 49 Credit Hours, 11-Month Program

The Welding Manufacturing program prepares students for careers in the welding/machining field. The combination of classroom theory, hands-on welding/machining skills training, and practical application in labs allows students to attain skills for entry-level employment.

Welding Manufacturing is designed to prepare students as entry-level technicians in many areas including the construction and repair of ships, automobiles, spacecraft, and thousands of other manufactured products. Welding and machining are the most common means of permanently joining and forming metal parts. Students will study welding techniques with various types of welding equipment, manual and automated machining processes and procedures, computer aided drafting (CAD), and the operation of computer numerical control (CNC). Welders require a wide variety of skills that will continue to increase due to the increase of sophisticated fabrication tasks and repair work. This program advances the student's welding and machining skills, thus increasing employment opportunities. In addition, students have the opportunity to expand their welding certifications.

Course	No.	Course Title	Credits
General Education Requirements			
CIS	100	INTRODUCTION TO KEYBOARDING	1
CIS	109	WORD, LEVEL I	1
CIS	112	EXCEL, LEVEL I	1
ENGL	101	COMPOSITION* <i>or</i>	3
ENGL	201	TECHNICAL WRITING I	
ENGL	102	CAREER COMMUNICATIONS	2
MATH	104	TECHNICAL MATHEMATICS**	3
ORT	010	ORIENTATION	1
PSYC	101	GENERAL PSYCHOLOGY <i>or</i>	3
PSYC	103	HUMAN RELATIONS IN THE WORKPLACE	
ECN	202	PRINCIPLES OF ECONOMICS-MACRO <i>or</i>	3
SOC	100	INTRO TO SOCIOLOGY	
Total			18
Technical Requirements			
WDM	110	SHIELDED METAL ARC WELDING	3
WDM	120	GAS TUNGSTEN ARC WELDING AND CUTTING PROCEDURES	4
WDM	127	MILL AND LATHE OPERATION, MANUAL I	3
WDM	122	GAS METAL ARC WELDING	3
WDM	124	SHIELDED METAL ARC WELDING GROOVED PLATE	3
WDM	128	MILL AND LATHE OPERATION, MANUAL II	3
WDM	135	GAS METAL ARC WELDING GROOVED PLATE	3
WDM	131	SHIELDED METAL ARC WELDING TESTING	3
WDM	132	GAS METAL ARC WELDING TESTING	3
WDM	133	WORK SITE INTERNSHIP	3
WDM	248	ADVANCED PRODUCTION I	3
WDM	140	BLUEPRINT READING AND SOLIDWORKS FUNDAMENTALS	3
WDM	246	ADVANCED MANUFACTURING I	3
WDM	247	ADVANCED AUTOMATED MANUFACTURING I	3
WDM	236	PIPE WELDING I	3
WDM	237	FLUX CORE ARC WELDING	3
WDM	238	ADVANCED MACHINING I	3
WDM	249	ADVANCED GAS TUNGSTEN ARC WELDING	3
Total			55

*Prerequisite: Acceptable COMPASS score or Basic Writing.

**Prerequisite: Acceptable COMPASS score or Basic Math.

Semester breakdown on next page

Semester Breakdown Diploma

First Semester			Second Semester		
		CR			CR
WDM 110	Shielded Metal Arc Welding	3	WDM 124	Shielded Metal Arc Welding Grooved Plate	3
WDM 120	Gas Tungsten Arc Welding and Cutting Procedures	4	WDM 128	Mill and Lathe Operation Manual II	3
WDM 127	Mill & Lathe Operation, Manual I	3	WDM 135	Gas Metal Arc Welding Grooved Plate	3
WDM 122	Gas Metal Arc Welding	3	WDM 140	Blue Print Reading/Solid Works Fundamentals	3
ORT 010	Orientation	1	PSYC 101	General Psychology <i>or</i>	3
CIS 100	Introduction to Keyboarding	1	PSYC 103	Human Relations in the Workplace	3
CIS 109	Word, Level I	1	MATH 104	Technical Mathematics	3
CIS 112	Excel, Level I	1		Total Credit Hours	18
	Total Credit Hours	17			
Summer Semester					
		CR			
WDM 131	Shielded Metal Arc Welding Qualification Testing	3			
WDM 132	Gas Metal Arc Welding Qualification Testing	3			
WDM 236	Pipe Welding I	3			
WDM 237	Flux Core Arc Welding	3			
ENGL 102	Career Communications	2			
	Total Credit Hours	14			

Semester Breakdown AAS

First Semester			Second Semester		
		CR			CR
WDM 110	Shielded Metal Arc Welding	3	WDM 124	Shielded Metal Arc Welding Grooved Plate	3
WDM 120	Gas Tungsten Arc Welding and Cutting Procedures	4	WDM 128	Mill and Lathe Operation Manual II	3
WDM 127	Mill & Lathe Operation, Manual I	3	WDM 135	Gas Metal Arc Welding Grooved Plate	3
WDM 122	Gas Metal Arc Welding	3	WDM 140	Blue Print Reading/Solid Works Fundamentals	3
ORT 010	Orientation	1	PSYC 101	General Psychology <i>or</i>	3
CIS 100	Introduction to Keyboarding	1	PSYC 103	Human Relations in the Workplace	3
CIS 109	Word, Level I	1	MATH 104	Technical Mathematics	3
CIS 112	Excel, Level I	1	ENGL 102	Career Communications	2
	Total Credit Hours	17		Total Credit Hours	20
Third Semester			Fourth Semester		
		CR			CR
WDM 131	Shielded Metal Arc Welding Qualification Testing	3	WDM 133	Worksite Internship	3
WDM 132	Gas Metal Arc Welding Qualification Testing	3	WDM 246	Advanced Manufacturing I	3
WDM 236	Pipe Welding I	3	WDM 247	Advanced Automated Manufacturing I	3
WDM 237	Flux Core Arc Welding	3	WDM 248	Advanced Production I	3
WDM 238	Advanced Machining I	3	WDM 249	Advanced Gas Tungsten Arc Welding	3
ENGL 101	Composition <i>or</i>	3	ECN 202	Principals of Economics Macro <i>or</i>	3
ENGL 201	Technical Writing I	3	SOC 100	Introduction to Sociology	3
	Total Credit Hours	18		Total Credit Hours	18
<p>These classes will also be offered in the summer. See instructor for details.</p>					