

CAREER & TECHNICAL EDUCATION

Career and technical programs provide instruction in the knowledge and skills from a wide variety of occupations that demand education beyond high school. Students prepare for employment by completing a two-year associate degree in applied sciences or by completing shorter term certificate programs. In many fields, career and technical education may enhance employment opportunities by providing students with industry certifications desired by employers.

While career-technical programs are designed primarily to prepare the student for immediate employment, many also offer opportunities for transfer to another college or university. Students are encouraged to speak with an academic advisor about these possibilities.

Certificates of Completion

“Certificate of Completion” means a form of recognition awarded by a community college for meeting minimum occupational course, curriculum or proficiency requirements. Certificates of completion must be state-approved, have a defined job entry point, represent collegiate-level work, be credit bearing, and meet Higher Education Coordinating Commission (HECC) standards and criteria.

OAR 589-006-0050 (12)

The term “certificate” may not be used for recognition/attendance awards and/or to imply equivalence to a Certificate of Completion.

Taxonomy/Requirements

Certificates range from 12-108 credits, and in clock hours from 180 -1,350. Certificates of Completion are identified in OAR 589-006-0100 (6) as:

- Less than one year,
- One year,
- Greater than one year, and
- Two years.

The taxonomy of Certificates of Completion includes:

1. Related to an AAS degree
2. Related to a larger Certificates of Completion program or an independent award
 - a. Related to an existing AAS degree
 - b. Related an existing Certificate of Completion
3. Independent new program

The HECC requirements for Certificates of Completion are set forth in OAR 589-006-0100 (8). Certificates of completion must:

- Include at least 12 credits; and
- Be no more than 108 credits; and
- Have a recognizable core of general education or related instruction courses for programs one-year or more in length; and
- Have an established standard of academic achievement; and
- Demonstrate occupational content leading to employment; and
- Meet or exceed the local community college board of education program approval standards; and

- Meet or exceed the Higher Education Coordinating Commission program approval standards and criteria.

Career Pathways

A type of Certificate of Completion: Career Pathways link education and training with student support or wraparound services to help students advance to higher levels of education and employment. They offer multiple entry and exit points that provide students with flexibility. They can include “stackable credentials” such as industry-recognized credentials, occupational licensed credentials, and more, preparing students for additional credentials over time. UCC offers the following Career Pathway programs in nth4e following industries:

- Automotive (<https://umpqua-public.courseleaf.com/programs-study-az/automotive-technology/>)
- Business (<https://umpqua-public.courseleaf.com/programs-study-az/business/>)
- CIS/Computer Science (<https://umpqua-public.courseleaf.com/programs-study-az/computer-information-systems/>)
- Early Childhood Education (<https://umpqua-public.courseleaf.com/programs-study-az/early-childhood-education/>)
- Emergency Medical Services (<https://umpqua-public.courseleaf.com/programs-study-az/emergency-medical-services/>)
- Engineering/Drafting/Surveying (<https://umpqua-public.courseleaf.com/programs-study-az/engineering/>)
- Healthcare Careers (<https://umpqua-public.courseleaf.com/programs-study-az/health-careers/>)
- Human Services (<https://umpqua-public.courseleaf.com/programs-study-az/human-services/>)
- Mechatronics (<https://umpqua-public.courseleaf.com/programs-study-az/mechatronics/>)
- Nursing (<https://umpqua-public.courseleaf.com/programs-study-az/nursing/>)
- Water Quality (<https://umpqua-public.courseleaf.com/programs-study-az/water-quality/>)
- Welding (<https://umpqua-public.courseleaf.com/programs-study-az/welding/>)

Associate of Applied Science

The Associate of Applied Science (AAS) degree is intended to prepare graduates for direct entry into the workforce. The AAS degree may also help to prepare students for career advancement, occupational licensure, or study at the baccalaureate level. As a minimum, the AAS must include 90 -108 quarter credits or equivalent proficiency; a recognizable core of or demonstrated competencies in specific general education courses; and an established standard of academic achievement. Curricula focuses on the application of knowledge and skills related to the occupations and careers identified by the program. Electives may include a combination of lower division collegiate transfer and/or collegiate-level career and technical education courses.

General requirements for the Associate of Applied Science are:

The Associate of Applied Science will be conferred on students who complete a two-year program in Career-Technical Education.

The Related Instruction component is also required for AAS degree.

The Associate of Applied Science Degree will be awarded to students who:

1. Satisfactorily complete all required courses in a specified occupational curriculum.
2. Complete a minimum of 90 credit hours or equivalent proficiency.
3. Maintain a cumulative grade point average of 2.00.
4. Complete a recognizable core of related instruction courses, including:
 - a. Demonstrated competency in mathematics and/or writing which meets or exceeds the competencies established for each individual program by the program's Advisory Board. Required learning outcome competency may be provided by:
 - i. Embedded Learning
 - ii. Successful completion of required specified content area class(es)
 - iii. Competency Testing
 - b. Three (3) credit hours of Mathematics numbered 100 or above or demonstrated competency.
 - c. Four (4) credit hours in WR 115 Intro to Expository Writing (4 cr.) or above or demonstrated competency.
 - d. Three (3) credit hours of Human Relations as specified by program.
5. Attend UCC for at least two terms, including the term prior to completion.
6. Complete a minimum of 25% credit hours at UCC, 15 of which must be in a career and technical discipline. A maximum of 24 credits of CWE will count towards the Associate of Applied Science Degree.

Human Relations includes:

1. The ways people interact with each other, either individually or in groups;
2. Basic communication skills such as speaking, listening, and writing; and
3. Interpersonal and intercultural sensitivity.

Approved Human Relations Courses

Code	Title	Credits
COM 218Z	Interpersonal Communication	4
PSY 101	Psychology of Human Relations	3

Career and Technical Education Course Options

Code	Title	Credits
AG 120	Intro to Agribusiness	3
AI 120	Intro to AI	4
AI 210	Machine Learning	4
AI 220	Natural Language Processing	4
AI 230	Computer Vision	4
AI 240	AI Data Science	4
AI 280	CWE - AI	1-13
APR 101	Intro to Trades and Technology	4
APR 111	Machine Shop Practices I	3
APR 112	Machine Shop Practices II	3
APR 113	Machine Shop Practices III	3
APR 115	Computer Aided Drafting I	3
APR 120	Industrial Safety	3
APR 121	Hydraulics I	3

APR 122	Hydraulics II	3
APR 123	Hydraulics III	3
APR 130	Mech Principles-Drive Designs	3
APR 131	Basic Metallurgy	3
APR 140	Beg Welding for Apprentices	1
APR 141	Int Welding for Apprentices	1
APR 142	Adv Welding for Apprentices	1
APR 145	Blueprint Reading-Sketching	3
APR 151	Basic Electronics-Electricity	4
APR 153	Electrical Applications-Tech	3
APR 155	Electrical Best Practices	2
APR 157	Intro to National Elect Code	2
APR 159	Electrical Blueprint Reading	2
APR 163	Commercial Wiring	3
APR 165	AC Electronics and Electricity	4
APR 167	Electric Motors-Transformers	3
APR 169	Electrical Code Study II	2
APR 228	Rigging Fundamentals	3
APR 229	Basic Pneumatics	3
APR 239	Pumps and Pumping	3
APR 251	Electrical Sensors and Control	3
APR 253	Electrical Code Study III	2
APR 255	Motor Controls I	2
APR 257	High Voltage Applications	2
APR 259	Solid State and Digital Apps	4
APR 261	Electrical Code Study IV	2
APR 263	Communications Alarm-Control	2
APR 265	Motor Controls II	2
APR 267	Advanced Code Study	3
APR 269	Journeyman Exam Prep	3
AUT 100A	Intro to Automotive Tech I	2
AUT 100B	Intro to Automotive Tech II	4
AUT 101	Basic Auto Skills I	3
AUT 102	Basic Auto Skills II	3
AUT 103	Basic Auto Skills III	5
AUT 111	Engine Repair and Maintenance	6
AUT 112A	Auto Friday Career Academy	2
AUT 112B	Auto Friday Career Academy	3
AUT 112C	Auto Friday Career Academy	3
AUT 113	Drive Trains	6
AUT 114	Suspension and Steering	6
AUT 115	Braking Systems	6
AUT 116	Electrical I	6
AUT 127	Climate Control Adv Electrical	6
AUT 129	Light Vehicle Diesel Engines	6
AUT 216	Electrical II	6
AUT 217	Heating and Air Conditioning	6
AUT 218	Engine Performance I	6
AUT 219	Light Duty Diesel	6
AUT 220	Alternative Fuel Vehicles	6
AUT 228	Engine Performance II	6
AUT 280	CWE-Automotive	1-13

BA 101Z	Introduction to Business	4	CIS 240M	Windows Server Admin I	4
BA 106	Business Leadership	3	CIS 244	Systems Analysis and Design	4
BA 116	Principles of Financial Svcs	4	CIS 275	Intro to Database Mgmt Sys I	4
BA 128	Accounting Applications I	2	CIS 276	Intro to Database Mgmt Sys II	4
BA 129	Accounting Applications II	2	CIS 279M	Windows Server Admin II	4
BA 150	Develop a Small Business	4	CIS 280	CWE-CIS	1-13
BA 151	Practical Accounting I	4	CIS 280D	CWE-Health Informatics	1-13
BA 152	Practical Accounting II	3	CIS 284	Network Security Fundamentals	4
BA 165	Customer Service	3	CIS 285A	Ethical Hacking	4
BA 170	Business Technologies	3	CIS 285C	Cloud Services Technologies	3
BA 171	Logic and Reasoning	3	CIS 288M	Windows Server Admin III	4
BA 172	Entrepreneurship	3	CIS 295	Authoring for the Web II	4
BA 173	Innovation to Market	3	CJ 101	Intro to Criminology	3
BA 174	Innovation and Tech Strategy	3	CJ 110	Intro to Law Enforcement	3
BA 175	Fund Accounting	4	CJ 114	Diversity Issues in CJ	3
BA 176	Project Management	4	CJ 120	Intro to Judicial Process	3
BA 177	Payroll Accounting	4	CJ 130	Intro to Corrections	3
BA 180	Business Mathematics I	3	CJ 211	Ethics in Criminal Justice	3
BA 181	Business Mathematics II	3	CJ 261	Intro to Parole and Probation	3
BA 206	Management Fundamentals	3	CS 271	Computer Architecture	4
BA 207	Intro to E-Commerce	3	CWE 162	CWE: Seminar II	1
BA 211Z	Principles Financial Acct	4	CWE 163	CWE: Seminar III	1
BA 213	Principles of Accounting III	3	CWE 180	Intro to Work Experience	3
BA 213Z	Principles Managerial Acct	4	DA 102	Adv Clinical Experiences	4
BA 214	Business Communications	3	DA 103	Dentistry Law and Ethics	1
BA 218	Personal Finance and Investing	3	DA 107	Dental Health Education I	1
BA 222	Financial Management	3	DA 108	Dental Health Education II	1
BA 223	Principles of Marketing	3	DA 110	Health Sciences	3
BA 226	Business Law	4	DA 111	Dental Terminology	2
BA 231	Computers in Business	4	DA 115	Dental Anatomy	3
BA 233	Accounting for Managers	4	DA 135	Oral Pathology	2
BA 238	Professional Selling	3	DA 139	Med Emergencies in Dental Ofc	2
BA 239	Advertising	3	DA 190	Dental Office Procedures	3
BA 249	Retailing	3	DA 192	Dental Materials I	3
BA 250	Managing the Small Business	3	DA 195	Chairside Procedures I	4
BA 253	Social Media Marketing	3	DA 196	Chairside Procedures II	4
BA 260	Advanced Human Resources	3	DA 198	Dental Materials II	2
BA 280	CWE-Business	1-13	DA 210	Dental Radiology I	4
BA 280A	CWE-Accounting	1-13	DA 211	Dental Radiology II	3
BA 280B	CWE-Marketing	1-13	DA 214	Dental Radiology License Prep	1
BA 280C	CWE-Management	1-13	DA 280	CWE: Dental Assisting	1-13
CIS 100	Intro to Windows and PCs	3	ECE 101	ECE-Sem-Prac I	3
CIS 140L	Intro to Linux OS	4	ECE 102	ECE-Sem-Prac II	3
CIS 140M	Intro to MS Operating Systems	4	ECE 103	ECE-SEM-Prac III	3
CIS 140W	Intro to Windows	2	ECE 140	Intro to Early Childhood Ed	3
CIS 145	Computer Forensics	4	ECE 150	Creative Activities for Child	3
CIS 151C	Introduction to Networks	4	ECE 154	Lit and Language for Children	3
CIS 152C	Switch Rout Wireless Ess	4	ECE 178	Observing-Guiding Behavior	3
CIS 153C	Ent Netwrk Security Automation	4	ECE 230	Health Safety and Nutrition	3
CIS 154C	Wide Area Network Protocols	4	ECE 235	Supporting Child Wellbeing	3
CIS 195	Authoring for the Web I	4	ECE 240	Lesson and Curriculum Planning	3
CIS 233CS	Intro to Programming II	4	ECE 244	Indiv Learning-Preschoolers	3

ECE 247	Admin of Child-Care Centers	3	GIS 235	GIS II Data Analysis-App	4
ED 229	Learning and Development	3	GIS 280	CWE-GIS	1-13
ED 235	Educational Technology	3	HE 260	Cardiopulmonary Resuscitation	1
ED 258	Culturally Responsive Ed	3	HS 211	HIV AIDS-Infectious Disease	2
ED 280	CWE-Education	1-13	HS 217	Group Counseling Skills I	3
EMS 151	EMT Part 1	6	HS 226	Ethics and Law	3
EMS 152	EMT Part 2	6	HS 265	Counseling Skills II	3
EMS 153A	EMS Friday Career Academy	3	HS 280	CWE-Human Svcs	1-13
EMS 153B	EMS Friday Career Academy	3	J 205	Intro to Public Relations	3
EMS 153C	EMS Friday Career Academy	6	J 211	Intro to Mass Communications	3
EMS 180	Crisis Intervention	3	J 215	Journalism Production	1-3
EMS 201	Pathophysiology	2	J 251	Writing for the Media	3
EMS 211	General Pharmacology	2	J 280	CWE: Journalism	1-13
EMS 212	Emergency Pharmacology	2	LA 100	Legal Procedures I	4
EMS 231	Medical Emergencies Part 1	4	LA 101	Intro to Paralegal Studies	3
EMS 232	Medical Emergencies Part 2	4	LA 102	Legal Terminology	3
EMS 233	Trauma Emergencies	4	LA 105	Civil Procedure	3
EMS 241	Basic Electrocardiography	2	LA 128	Legal Procedures II	4
EMS 242	Advanced Electrocardiography	2	LA 132	Ethics for Legal Prof	3
EMS 243	Special Populations	4	LA 204	Legal Research and Writing I	4
EMS 251	Paramedic Part 1	3	LA 205	Legal Research and Writing II	4
EMS 252	Paramedic Lab Part 2	3	LA 208	Family Law	4
EMS 253	Paramedic Lab Part 3	3	LA 210	Wills Probate Estates	3
EMS 261	Paramedic Clinical Part 1	4	LA 217	Real Estate Law for Paralegals	4
EMS 262	Paramedic Clinical Part 2	4	LA 224	Torts Pleadings and Practice	3
EMS 263	Paramedic Field Internship	8	LA 226	Criminal Law for Paralegals	3
EMS 280	CWE-EMS	1-13	LA 280	CWE- Legal Assistant	1-13
ENGR 202	Electrical Fundamentals II	4	MEC 118	Preventive Maintenance	3
ES 101	Principles-Emergency Services	3	MEC 120	Industrial Safety	3
ES 103	Occupational Safety-Health	2	MEC 121	Mechanical Components	5
ES 107	Legal Aspects-Emergency Svcs	2	MEC 123	Automation Programming I	5
ES 109	Principles of FESA	3	MEC 151	Electricity in Mechatronics	5
ES 113	Emergency Medical Svcs Rescue	3	MEC 201	Composites	5
FRP 101	FF Safety and Survival	3	MEC 219	Robotics in Manufacturing	5
FRP 111	Bldg Constr-Fire Suppression	3	MEC 222	Hydraulics and Pneumatics	5
FRP 121A	Elementary Fire Science Part 1	4	MEC 224	Controls and Instrumentation	5
FRP 121B	Elementary Fire Science Part 2	4	MEC 225	Automation Programming II	5
FRP 122	Fundamentals Fire Protection	3	MEC 229	Mechatronics Capstone	3
FRP 123	Hazardous Materials	4	MEC 280	CWE-Mechatronics	1-13
FRP 132	Fire Pump Const-Operation	3	MED 100	Intro to Healthcare Careers	2
FRP 133	Natural Cover Fire Protection	3	MED 111	Medical Terminology I	3
FRP 135	Hazardous Materials Chemistry	2	MED 112	Medical Terminology II	3
FRP 159	Fire Behavior and Combustion	3	MED 117	AP and Pharmacology for MAs	4
FRP 201A	Rough Terrain	1	MED 120	Clinical Procedures I	3
FRP 201B	Swiftwater Rescue	1	MED 122	Clinical Procedures II	3
FRP 201C	Vehicle Extrication	1	MED 125	Medical Assistant Practicum I	4
FRP 202	Fire Protection Systems	3	MED 126	Medical Assistant Practicum II	6
FRP 212	Fire Investigation	3	MED 140	Electronic Health Records	3
FRP 213	FF Tactics and Strategy	3	MED 220	Medical Office Procedures I	3
FRP 230	Fire Service Hydraulics	4	MED 221	Medical Office Procedures II	3
GIS 203	Digital Earth-Geospatial	4	MED 230	Health Insurance Concepts	3
GIS 234	GIS 1-Intro to Geographic Info	4	MED 231	Hlth Care Reimburs-Collections	3

MED 260	Medical Document Processing	3	SDP 201	Coaching in the Workplace	3
MFG 104	Principles of Lean Mfg	1	SDP 204	Labor and Mgmt Relations	3
MFG 108	Starrett PMI	2	SDP 208	Human Rscs for Supervisors	3
MFG 111	Machine Shop I	3	SDP 215	Equal Employment Opportunity	3
MFG 112	Machine Shop II	3	SDP 223	Employee Dev and Perform Mgmt	3
MFG 113	Machine Shop III	3	SOC 280	CWE: Sociology	1-13
MFG 121	Hydraulics I	3	VE 101	Intro to the Wine Industry	1
MFG 122	Hydraulics II	3	VE 102	Integrated Pest Control-Grapes	4
MFG 123	Hydraulics III	3	VE 103	Soils-Nutri-Irrig	4
MFG 124	Hydraulics IV	3	VE 202	Sensory Evaluation of Wine	4
MFG 125	Hydraulics V	3	VE 205	Wines of North America	3
MUS 280	CWE-Music	1-13	VE 210	Sci of Winemkg I	5
NRS 101	Nursing Assistant	6	VE 211	Science of Making Wine II	5
NRS 102A	NRS Asst Friday Career Academy	2	VE 223	Wine Marketing	3
NRS 102B	NRS Asst Friday Career Academy	2	VE 280	Vineyard-Winery Practicum	1-13
NRS 102C	NRS Asst Friday Career Academy	2	WLD 101	Welding Processes-Apps	4
NRS 103A	NA 1	2	WLD 111	Shielded Metal Arc Welding	4
NRS 103B	NA 1	2	WLD 112	Shld Metal Arc Wldg:Mild Steel	3
NRS 103C	NA 1	2	WLD 113	Shld Metal Arc Wldg;Mld Stl II	3
NRS 110	Found of Nrsg-Health Promotion	9	WLD 114	Shld Metal Arc Wldg;MldStl III	3
NRS 111	Found of Nrsg-Chronic Illness	6	WLD 121	Gas Metal Arc Welding	3
NRS 112	Found of Nrsg-Acute Care	6	WLD 122	Gas Metal Arc Welding-Pulse	3
NRS 221	Chronic Illness II	9	WLD 123	Advanced Welding III	3
NRS 222	Acute Care II	9	WLD 124	Advanced Welding IV	3
NRS 224	Scope of Practice	9	WLD 131	Basic Metallurgy	3
NRS 230	Clinical Pharmacology I	3	WLD 140	Blueprint Reading	3
NRS 231	Clinical Pharmacology II	3	WLD 141	Flux-Core Arc Wldg(Gas Shld)	3
NRS 232	Pathophysiological Proc I	3	WLD 142	Flux-Core Arc Wldg II Slf Shld	3
NRS 233	Pathophysiological Proc II	3	WLD 150	GTAW I	3
NRS 234	Patho for Nursing 1	2	WLD 160	Aluminum Arc Welding I	3
NRS 235	Patho for Nursing 2	2	WLD 161	Welding Problems	4
NRS 236	Patho For Nursing 3	2	WLD 222	Pipe Welding-Fitting I	3
NRS 237	Pharmacology for Nursing 1	2	WLD 223	Pipe Welding-Fitting II	3
NRS 238	Pharmacology for Nursing 2	2	WLD 240	Blueprint Reading - II	3
NRS 239	Pharmacology for Nursing 3	2	WLD 251	Gas Tungsten Arc Weld II	3
NRS 280	CWE: Nursing	1-13	WLD 252	Gas Tungsten Arc Weld III	3
OA 110	Alpha Keyboarding	2	WLD 261	Aluminum Arc Welding II	3
OA 115	Admin Office Professional	3	WLD 262	Aluminum Arc Welding III	3
OA 116	Records Management	2	WLD 280	CWE: Welding	1-13
OA 123	Formatting	4	WQT 226	Wastewater Treatment I Liquid	3
OA 128	Editing for Business	3	WQT 227	Wastewater Treatment II Solids	3
OA 131	Ten-Key Calculator	1	WQT 228	Wastewater Collection	3
OA 161	Career Planning	1	WQT 260	Water Treatment	3
OA 245	Office Administration	1	WQT 261	Water Distribution	3
OA 250	General Office Procedures	3	WQT 280	CWE-Water Quality Treatment	1-13
OA 260	Principles of Office Mgmt	3			
OA 280A	CWE-Admin Asst-Office Asst	1-13			
OA 280C	CWE-Medical Admin Asst	1-13			
PHLB 101	Phlebotomy	9			
PSY 280	CWE: Psychology	1-13			
SDP 109	Elements of Supervision	3			
SDP 113	Human Relations-Supervisors	3			