

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION - ASSOCIATE OF APPLIED SCIENCE

Doña Ana Community College 2022-2023 Catalog (61 credits)

NOTE: Students must earn a final grade of C- or better in all required HVAC courses/Technical Requirements and achieve a cumulative grade-point average of at least 2.0. A grade of C- or better is required in ENGL 1110G Composition I and designated Mathematics courses.

Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 61 credits (61 of credits listed for degree). Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Prefix	Title	Credits
General Education		
<i>Select one course from four of the following six content areas for a total of 12-14 credits^{1,2}</i>		12-14
This degree requires a course from Area I; students must select three courses from the remaining areas to complete General Education requirements.		
Area I: Communications		
ENGL 1110G	Composition I ³	
Area II: Mathematics		
Course Options for Area III		
ASTR 1115G	Introduction to Astronomy Lecture & Laboratory (Recommended)	
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory (Recommended)	
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory (Recommended)	
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors) (Recommended)	
GEOG 1110G	Physical Geography (Recommended)	
PHYS 1115G	Survey of Physics with Lab (Recommended)	
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab (Recommended)	
Area IV: Social and Behavioral Sciences		
Course Options for Area IV		
ANTH 1115G	Introduction to Anthropology (Recommended)	
ANTH 1137G	Human Ancestors (Recommended)	
ANTH 1160G	World Archaeology (Recommended)	
ECON 1110G	Survey of Economics (Recommended)	
ECON 2110G	Macroeconomic Principles (Recommended)	
ECON 2120G	Principles of Microeconomics (Recommended)	

GEOG 1120G	World Regional Geography (Recommended)	
POLS 1110G	Introduction to Political Science (Recommended)	
POLS 1120G	American National Government (Recommended)	
POLS 1130G	Issues in American Politics (Recommended)	
PSYC 1110G	Introduction to Psychology (Recommended)	
SOCI 1110G	Introduction to Sociology (Recommended)	
SOCI 2310G	Contemporary Social Problems (Recommended)	
Area V: Humanities		
Course Options for Area V		
HIST 1110G	United States History I (Recommended)	
HIST 1120G	United States History II (Recommended)	
HIST 1150G	Western Civilization I (Recommended)	
HIST 1160G	Western Civilization II (Recommended)	
PHIL 1115G	Introduction to Philosophy (Recommended)	
PHIL 1120G	Logic, Reasoning, & Critical Thinking (Recommended)	
PHIL 2110G	Introduction to Ethics (Recommended)	
Area VI: Creative and Fine Arts		
Course Options for Area VI		
ARTH 1115G	Orientation in Art (Recommended)	
ARTS 1145G	Visual Concepts (Recommended)	
MUSC 1110G	Music Appreciation: Jazz (Recommended)	
MUSC 1130G	Music Appreciation: Western Music (Recommended)	
General Education Elective		
COMM 1115G	Introduction to Communication	3
Core Requirements		
Related Requirements		
OETS 118	Mathematics for Technicians	3
Major Requirements		
Technical Requirements		
HVAC 100	EPA Clean Air Act: Section 608 ⁴	1
HVAC 101	Fundamentals of Refrigeration	4
HVAC 102	Fundamentals of Electricity	4
HVAC 103	Electrical and Mechanical Controls I	4
HVAC 113	Job Shadowing	1
HVAC 205	Commercial Refrigeration Systems	4
HVAC 207	Residential Air Conditioning Systems	4
HVAC 209	Residential Heating Systems	4
HVAC 210	Commercial Air Conditioning and Heating Systems	4
HVAC 211	Heat Pump Systems	4
HVAC 213	Practicum	3
Electives, to bring the total credits to 61		
Select 4 credits from the following:		4
DRFT 115	General Construction Safety	
HVAC 110	Professional Development and Leadership	
HVAC 220	Introduction to Sheet Metal Fabrication	
HVAC 225	New Mexico Mechanical Codes: HVAC	
WELD 102	Welding Fundamentals	
and/or other approved elective(s)		
Total Credits		61

1

Each course selected must be from a different area and students cannot take multiple courses in the same area.

2

See the General Education (<http://catalogs.nmsu.edu/dona-ana/general-education-and-transfer-options/transfer-new-mexico-institutions/>) section of the catalog for a full list of courses.

3

Courses are identical to those offered at New Mexico State University Las Cruces (main) Campus.

4

A fee of \$55 is required for study guide and testing; must pass Type 1 and Type 2 tests.

(61 credits)

A Suggested Plan of Study

The contents of this roadmap may vary depending on initial student placement in mathematics and English. This is only a suggested plan of study for students, and is not intended as a contract. Individual student academic plans may vary. Please contact your academic advisor to create a plan that works for you. Course availability may vary from fall to spring semester and may be subject to modification or change.

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Semester 1		Credits
Area I: Communications - English Composition Level 1		4
ENGL 1110G	Composition I	
HVAC 100	EPA Clean Air Act: Section 608	1
HVAC 101	Fundamentals of Refrigeration	4
HVAC 102	Fundamentals of Electricity	4
HVAC 113	Job Shadowing	1
Credits		14
Semester 2		
HVAC 207	Residential Air Conditioning Systems	4
HVAC 210	Commercial Air Conditioning and Heating Systems	4
HVAC 211	Heat Pump Systems	4
Elective		2
Credits		14
Semester 3		
NM General Education - Choose one course from different NM General Education Areas III, IV, V, and VI. A total of 3 courses (10 credits) from different areas are required. Approved courses include:		3
Area III: Laboratory Sciences (4 credits)		
ASTR 1115G	Introduction to Astronomy Lecture & Laboratory	
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory	

BIOL 2610G & 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution	
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	
GEOG 1110G	Physical Geography	
PHYS 1115G	Survey of Physics with Lab	
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab	
Area IV: Social/Behavioral Sciences (3 credits)		
ANTH 1115G	Introduction to Anthropology	
ANTH 1137G	Human Ancestors	
ANTH 1160G	World Archaeology	
ECON 1110G	Survey of Economics	
ECON 2110G	Macroeconomic Principles	
ECON 2120G	Principles of Microeconomics	
GEOG 1120G	World Regional Geography	
POLS 1110G	Introduction to Political Science	
POLS 1120G	American National Government	
POLS 1130G	Issues in American Politics	
PSYC 1110G	Introduction to Psychology	
SOCI 1110G	Introduction to Sociology	
SOCI 2310G	Contemporary Social Problems	
Area V: Humanities (3 credits)		
HIST 1110G	United States History I	
HIST 1120G	United States History II	
HIST 1150G	Western Civilization I	
HIST 1160G	Western Civilization II	
PHIL 1115G	Introduction to Philosophy	
PHIL 1120G	Logic, Reasoning, & Critical Thinking	
PHIL 2110G	Introduction to Ethics	
Area VI: Creative and Fine Arts (3 credits)		
ARTH 1115G	Orientation in Art	
ARTS 1145G	Visual Concepts	
MUSC 1110G	Music Appreciation: Jazz	
MUSC 1130G	Music Appreciation: Western Music	
HVAC 103	Electrical and Mechanical Controls I	4
HVAC 205	Commercial Refrigeration Systems	4
HVAC 209	Residential Heating Systems	4
Credits		15
Semester 4		
General Education Elective - Area I: Communications - Oral Communications		3
COMM 1115G	Introduction to Communication	
NM General Education - NM General Education - Choose two courses from different NM General Education Areas III, IV, V, and VI. A total of 2 courses (10 credits) from different areas are required. A list of approved courses can be found in Semester 3.		7
HVAC 213	Practicum	3
OETS 118	Mathematics for Technicians	3
Elective		2
Credits		18
Total Credits		61