

# WATER TECHNOLOGY - ASSOCIATE OF APPLIED SCIENCE

## Doña Ana Community College 2024-2025 Catalog (67-68 credits)

NOTE: Students must earn a final grade of C- or better in all required WATR 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 67 credits (67-68 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 |
|---|---|---------|
| <b>General Education</b>  |   |         |
| <i>Select one course from four of the following six content areas for a total of 12-14 credits<sup>1,2</sup></i>                                  |   | 12-14   |
| This degree requires courses from Area I; students must select three courses from the remaining areas to complete General Education requirements. |   |         |
| Area I: Communication   |   |         |
| ENGL 1110G  | Composition I <sup>3</sup>                                    |         |
| Area II: Mathematics  |   |         |
| Area III: Laboratory Sciences <sup>2,3</sup>  |   |         |
| Area IV: Social/Behavioral Sciences <sup>2,3</sup>  |   |         |
| Area V: Humanities <sup>2,3</sup>   |   |         |
| Area VI: Creative and Fine Arts <sup>2,3</sup>  |   |         |
| <b>General Education Elective</b>   |   |         |
| COMM 1115G<br>or COMM 1130G   | Introduction to Communication <sup>3</sup><br>Public Speaking | 3       |
| <b>Major Requirements</b>   |   |         |
| <b>Technical Requirements</b>   |   |         |
| WATR 120  | Introduction to Water Systems                                 | 3       |
| WATR 130  | Wastewater Collection and Basic Treatment Systems             | 3       |
| WATR 140  | Applied Water and Wastewater Math I                           | 3       |
| WATR 160  | Systems Maintenance   | 4       |
| WATR 175  | Programmable Logic Controllers                                | 2       |
| WATR 182  | Water Chemistry Analysis                                      | 1       |
| WATR 190  | Water and Wastewater Microbiology                             | 3       |
| WATR 192  | Water and Wastewater Microbiological Analysis                 | 1       |
| WATR 200  | Internship  | 3       |
| WATR 220  | Water Treatment Systems                                       | 3       |
| WATR 222  | Water Systems Operation                                       | 1       |
| WATR 230  | Advanced Wastewater Treatment                                 | 4       |
| WATR 232  | Wastewater Systems Operations                                 | 1       |
| WATR 240  | Advanced Water and Wastewater Math II                         | 3       |
| WATR 250  | Municipal Systems Management                                  | 4       |

|                                |  |              |
|--------------------------------|--|--------------|
| WATR 275                       | Certification Review   | 3            |
| Choose one from the following: |  | 3            |
| WATR 180                       | Water Chemistry  |              |
| CHEM 1111                      | Basic Chemistry <sup>3</sup>   |              |
| CHEM 1120G                     | Introduction to Chemistry Lecture and Laboratory (non majors) <sup>3</sup>   |              |
| CHEM 1215G                     | General Chemistry I Lecture and Laboratory for STEM Majors (or any higher level CHEM course of 3 or more credits) <sup>3</sup> |              |
| Select one from the following: |  | 6            |
| WATR 285<br>& WATR 287         | High Purity Water Treatment Systems and Advanced Water Chemistry Analysis  |              |
| WATR 290<br>& WATR 292         | Advanced Wastewater Microbiology and Chemistry and Advanced Wastewater Analysis  |              |
| <b>Total Credits</b>           |  | <b>67-68</b> |

- <sup>1</sup> Each course selected must be from a different area and students cannot take multiple courses in the same area.
- <sup>2</sup> See the General Education (<https://catalogs.nmsu.edu/dona-ana/general-education-and-transfer-options/transfer-new-mexico-institutions/>) section of the catalog for a full list of courses.
- <sup>3</sup> Courses are identical to those offered at New Mexico State University Las Cruces (main) Campus.

## (67-70 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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Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 67 credits (67-70 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.

| Semester 1 | Credits   |
|------------|---|
| WATR 120   | Introduction to Water Systems 3   |
| WATR 130   | Wastewater Collection and Basic Treatment Systems 3   |
| WATR 140   | Applied Water and Wastewater Math I 3   |
| WATR 160   | Systems Maintenance 4   |
| WATR 180   | Water Chemistry 3   |
| CHEM 1111  | Basic Chemistry   |
| CHEM 1120G | Introduction to Chemistry Lecture and Laboratory (non majors)   |
| CHEM 1215G | General Chemistry I Lecture and Laboratory for STEM Majors (or any higher level CHEM course of 3 or more credits) |

|   |   |              |
|---|---|--------------|
| WATR 182  | Water Chemistry Analysis  | 1            |
| <b>Credits</b>  |   | <b>17</b>    |
| <b>Semester 2</b>   |   |              |
| Area I: Communications – English Composition Level 1  |   | 4            |
| ENGL 1110G  | Composition I   |              |
| Select one course from different NM General Education Areas III, IV, V, and VI. A total of 3 courses from different areas are required. |   | 3-4          |
| Area III: Laboratory Sciences   |   |              |
| Area IV: Social/Behavioral Sciences   |   |              |
| Area V: Humanities  |   |              |
| Area VI: Creative and Fine Arts   |   |              |
| WATR 175  | Programmable Logic Controllers  | 2            |
| WATR 190  | Water and Wastewater Microbiology   | 3            |
| WATR 192  | Water and Wastewater Microbiological Analysis                                   | 1            |
| WATR 220  | Water Treatment Systems   | 3            |
| WATR 222  | Water Systems Operation   | 1            |
| <b>Credits</b>  |   | <b>17-18</b> |
| <b>Semester 3</b>   |   |              |
| WATR 200  | Internship (3-5 credits)  | 3            |
| <b>Credits</b>  |   | <b>3</b>     |
| <b>Semester 4</b>   |   |              |
| General Education Elective – Area I: Communications - Oral Communications   |   | 3            |
| COMM 1115G  | Introduction to Communication   |              |
| WATR 230  | Advanced Wastewater Treatment   | 4            |
| WATR 232  | Wastewater Systems Operations   | 1            |
| WATR 240  | Advanced Water and Wastewater Math II   | 3            |
| Choose one from the following:  |   | 6            |
| WATR 285 & WATR 287   | High Purity Water Treatment Systems and Advanced Water Chemistry Analysis       |              |
| WATR 290 & WATR 292   | Advanced Wastewater Microbiology and Chemistry and Advanced Wastewater Analysis |              |
| <b>Credits</b>  |   | <b>17</b>    |
| <b>Semester 5</b>   |   |              |
| Select one course from different NM General Education Areas III, IV, V, and VI. A total of 3 courses from different areas are required. |   | 3-4          |
| Select one course from different NM General Education Areas III, IV, V, and VI. A total of 3 courses from different areas are required. |   | 3-4          |
| WATR 250  | Municipal Systems Management  | 4            |
| WATR 275  | Certification Review  | 3            |
| <b>Credits</b>  |   | <b>13-15</b> |
| <b>Total Credits</b>  |   | <b>67-70</b> |