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| 1. **Institution and Course Information**
 |
| Name of Institution | **Navajo Technical University** |
| Department | **Engineering, Mathematics, & Technology** |
| Course Number, Title, Credits |  |
| Co-requisite Course Number and Title, if any |  |
| Is this application for your system (ENMU, NMSU, & UNM)? |  |
| Name and Title of Contact Person | **Shasha Han** |
| Email and Phone Number of Contact Person | **shan@navajotech.edu** |

**Was this course previously part of the general education curriculum?**

**☒** Yes **☐** No

**This course will fulfill general education requirements for (check all that apply):**

**☒** AA/AS/BA/BS **☐ AAS**

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| 1. Content Area and Essential Skills
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**To which content area should this course be added?** *Indicate “Other” if the course is not associated with one of the six NM General Education content areas.*

**☐** Communications **☒** Mathematics **☐** Science **☐** Social & Behavioral Sciences

**☐** Humanities **☐** Creative & Fine Arts **☐** Other

**Which essential skills will be addressed?**

**☒** Communication **☒** Critical Thinking **☐** Information & Digital Literacy

**☒** Quantitative Reasoning **☐** Personal & Social Responsibility

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| 1. Learning Outcomes
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**This course follows the CCNS SLOs for**

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**List all learning outcomes that are shared between course sections at your institution.**

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| **Common Course Student Learning Outcomes (find Common Course SLOs at:** [**http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx**](http://www.hed.state.nm.us/programs/request-a-change-to-the-nmccns.aspx)**)**  |
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| **Institution-specific Student Learning Outcomes**  |
| List institution-specific Student Learning Outcomes |

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| 1. Narrative
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**Explain what students are going to do to develop the critical skills** (selected above) **and how you will assess their learning?**

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| **Communication.** *Genre and Medium Awareness, Application and Versatility; Strategies for Understanding and Evaluating Messages; and Evaluation and Production of Arguments.*  |
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| **Critical Thinking.** *Problem Setting; Evidence Acquisition; Evidence Evaluation; and Reasoning/Conclusion* |
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| **Quantitative Reasoning.** *Communication/Representation of Quantitative Information; Analysis of Quantitative Arguments; and Application of Quantitative Models*  |
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| 1. Supporting Documents
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**☐ Sample Course Rubric Attached** (recommended) **☒ Sample Assessment Attached** (required)

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| 1. Assessment Plan (Must be on file with HED by August 1, 2019)
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**Link to Institution’s General Education Assessment Plan** Click here to enter text.

This course meets Navajo Tech's institutional standards for General Education and has been reviewed and approved by our Student Learning Committee. Student learning data will be gathered from the course's summative assessment(s). Data summaries from all sections of the course will be compiled on a semester-by-semester basis by the University's Offices of Assessment and Institutional Research. Departmental faculty will review the data and design course and GenEd program improvements annually during Assessment Days. An annual summary that includes summaries of program improvement will be prepared by the Student Learning Committee and included in the University's Annual Student Learning Report. Curriculum revisions as needed will be designed by the appropriate departmental faculty, and reviewed and approved by the Student Learning Committee and Faculty Congress.

**Sample Assessment: assignment-with-rubric**

**Assignment steps:**

1.

2.

3.

4.

5.

6.

**Rubric**

**QUANTITATIVE REASONING RUBRIC**

**Adapted from NMHED Quantitative Reasoning rubric • Navajo Technical University**

Student: Date:

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| OUTCOMES | SCALE | SUBTOTALS & COMMENTS |
| Emerging (1 pts) | Developing (2 pts) | Proficient (3 pts) |
| *Express quantitative information* | Student explains the meaning of graphics, numbers, or algebraic symbols within a given context. | Emerging skill descriptions plus: Translates mathematical graphics and symbolism into written or oral language; translates written or oral language into mathematical symbols and graphics. | Developing skill descriptions plus: Integrates written and symbolic mathematical constructs in describing particular contexts. |  |
| *Evaluate a quantitative argument* | Student summarizes quantitative arguments presented by others. | Emerging skill descriptions plus: Differentiates and describes the parts of a quantitative argument presented by others; compares the conclusions of a quantitative argument with conclusions from other reliable sources. | Developing skill descriptions plus: Uses appropriate techniques of mathematical proof or statistical analysis, evaluates each component of a quantitative argument for mathematical validity and demonstrates whether an overall quantitative argument is valid, invalid, or questionable. |  |
| *Interpret results to solve a problem* | Student identifies, describes, and classifies quantitative information needed to address contextual problems. | Emerging skill descriptions plus: Identifies appropriate mathematical or statistical models to represent quantitative information in contextual problems; applies those models to generate numeric predictions. | Developing skill descriptions plus: Assesses the validity of numeric predictions and correct unreasonable findings; analyzes and interprets results; uses them in a quantitative argument to support a position or line of reasoning or solve a contextual problem. |  |
| TOTAL/COMMENTS |

Scale: 9 points = A; 8 = points = B; 7-6 points = C; 5-4 points = D; less than 4 points = F