# **NEW OR REVISED COURSE PROPOSAL**

CENTRAL NEW MEXICO COMMUNITY COLLEGE

### MSE CURRICULUM COMMITTEE

**This is course is NEW / EXISTING**

|  |  |
| --- | --- |
| **Prefix, Number, and Course Title** | **ENGT 2120 Quantum Information Systems** |
| **Discipline** | **Engineering Technology** |
| **Credit Hours and Type** | **3 credits (5 contact hours; 2 hours lectures, 3 hours lab)** |
| **Proposal Originator** | **Anna Gilletly** |
| **Curriculum Liaison** | **Michael Faulhaber** |

## Proposal

**I. Description of New Course or Existing Course Change** (Include any additions, deletions, or modifications; address the impact on other schools’ offerings)

Request new HED course number.

**ENGT 2120 – Quantum Information Systems**

**Course Description**: …. .

Pre-requisite: ?????

Student Learning Outcomes

1. Describe and build apparatuses to demonstrate quantum phenomena of superposition and entanglement.
2. Describe the properties of a Qubit and differences between neutral atom, trapped ioin, photonic, superconducting, and quantum well Qubits.
3. Desmontrate the ability to configure and tune a magneto-optical trap to create a Qubit and induce Rabi flopping.
4. **Justification for the Addition/Change.** (Explain the reason for the addition/change; address the impact on current students.)

Next phase of certificate expansion for the Engineering Tech program. This course will pre-align with CNM Ingenuity Quantum Technician program for CPL (credit for prior learning).

**IIa. For new courses:** List course prerequisites, or corequisites, or pre- or corequisites

Pre-requisite:

**Is this new course going to be offered every term? YES / NO**

**If this is a general education course, indicate which core area applies to the course:**

**n/a**

**If this is an Arts & Sciences course, indicate which core area applies to the course:**

**n/a**

**If this is a CTE course, indicate which core area applies to the course:**

**Engineering**

**Is this course repeatable for credit? If yes, indicate maximum credits and/or number of times course can be repeated. YES / NO**

**Will the course be delivered in person? YES / NO**

**Will the course be delivered online? YES / NO**

**Is this course currently part of the NM Common Course Numbering? YES / NO**

**Was this course developed specifically for transfer to a program(s) at a NM 4-year higher education public institution? YES / NO**

**If yes, list the institution(s), program(s), and suggested equivalent course(s):**

1. **Impact of the Change**

Consider the effects and consequences that the change might have on various stakeholders.

(a) YES or NO Will this change affect existing articulation agreements?

(**Please perform a search for all programs using the course**)

(b) YES or NO Will the change affect existing accreditations?

(c) YES or NO Will the change increase the need for additional facilities and/or equipment?

(d) YES or NO Will the change increase the need for additional faculty?

(e) YES or NO Will the change affect pre- or co-requisite considerations?

**(Please perform a search for all programs using the course)**

(f) YES or NO Will the change affect graduation requirements?

(g) YES or NO Will the change negatively affect continuing students?

(h) YES or NO Will the change increase the need for additional course offerings (sections)?

If you answer **Yes** to any item (*a through h*)*,* please use the space below to describe the effects and the actions you have taken to address them. Attach any additional paperwork and label the effects you are addressing with the letter indicating the impact you are addressing.

**IV. Course Attributes**

**Banner Attributes – highlight all that apply**

Arts & Sciences

Arts & Sciences Lab Science

Arts & Sciences Foreign Language

Arts & Sciences Literature

Capstone

Does not apply

**Does this course have work embedded learning attributes? If yes, indicate which.**

**V. Financial Aid Questions**

**Does this course fulfil a degree or certificate requirement? YES / NO**

**If yes, what degree or certificate?**

**Engineering Tech Certificate of Completion**

**Does this course have lab credit hours? YES / NO**

**Has this course been offered previously under a different name? YES / NO**

**If yes, what was the previous name of the course?**

**ENGT 2996C,Topics Course, Methods in Engineering Tech III**

**VI. Student Learning Outcomes**

**Please list the learning outcomes for this course.**

**Please submit a copy of the syllabus for this course along with this proposal.**

Draft 1 - 15wk – Syllabus –

ENGT 2210 – Methods in Engineering Technology III

Pre-requisite: ENGT 2110 Methods in Engineering Technology II

# General Information

| General Information | Items |
| --- | --- |
| Instructor Name: |  |
| Email: |  |
| Office Location: |  |
| Office Phone: |  |
| Office Hours: |  |
| Course Number: |  |
| Section Number: |  |
| Semester & Year: |  |
| Credit Hours: |  |
| Campus/Rooms: |  |
| Meeting Time: |  |

## Course Description

Learners ….

## Required Materials

**No Required Textbook, all readings will be provided by instructor.**

## Course Student Learning Outcomes

## Assessments

## Schedule of Topics (tentative)