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| **School or Division** | School of Pure and Applied Sciences |
| **Program or Certificate or** | Associate in Arts |
| **New degree or certificate program** | N/A |
| **Proposed by (faculty only)** | Dr. Elizabeth Schott |
| **Presenter (faculty only)** | Dr. Elizabeth Schott |
| Note that the presenter (faculty) listed above must be present at the Curriculum Committee meeting or the proposal will be returned to the School or Division and must be submitted for a later date. | |
| **Submission date** | 1/28/2016 |
| **Course prefix, number, and title** | EGN 2322, ENGINEERING MECHANICS - DYNAMICS |

**Section I, New Course Information (must complete all items)**

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| **List School or Division** | School of Pure and Applied Sciences |
| **List course prerequisite(s) and minimum grade(s) (must include minimum grade if higher than a “D”)** | EGN 2312 with a grade of “C” or higher. |
| **Will students be taking any of the prerequisites listed for this course in different parts of the same term (ex. Term A and Term B)** | No |
| **List course corequisites** |  |
| **Is any corequisite for this course listed as a corequisite on its paired course?**  (Ex. CHM 2032 is a corequisite for CHM 2032L, and CHM 2032L is a corequisite for CHM 2032) | No |
| **Course credits or clock hours** | 3 credit hours |
| **Contact hours (faculty load)** | 3 credit hours |
| **Select grade mode** | Standard Grading (A, B, C, D, F) |
| **Credit type** | College Credit |
| **Course description** (provide below) | |
| THIS COURSE PROVIDES STUDENTS WITH THE SKILLS THEY NEED TO ANALYZE AND SOLVE PROBLEMS INVOLVING BODIES IN MOTION THROUGH THE APPLICATION OF VECTOR MECHANICS AND NEWTON'S LAWS. STUDENTS WILL LEARN KINETICS, ENERGY OF PARTICLES, RIGID BODIES IN 2-D AND 3-D MOTION, AND VIBRATIONS. | |

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| **General topic outline** (type in outline below) |
| * Kinematics of Particles * Kinetics of Particles: Newton's Second Law * Kinetics of Particles: Energy and Momentum Methods * Systems of Particles * Kinematics of Rigid Bodies * Plane Motion of Rigid Bodies: Forces and Accelerations * Plane Motion of Rigid Bodies: Energy and Momentum Methods * Kinetics of Rigid Bodies in Three Dimensions * Mechanical Vibrations |

**Learning Outcomes:** For information purposes only. Type in all learning outcomes, assessments, and general education competencies as they should be displayed in the syllabus. More rows can be added if necessary.

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| **Learning Outcomes** | **Assessments** | **General Education Competencies** |
| Describe the physical concepts behind, and determine mathematically the products of, scalar and vectors operations. | Homework and/or problem sets and/or quizzes and/or tests and/or labs | Evaluate and utilize mathematical principles, technology, scientific and quantitative data |
| Determine the time-based relationships among orientation, position, velocity, and acceleration. | Homework and/or problem sets and/or quizzes and/or tests and/or labs |  |
| Describe the physical meaning and approximations behind, and calculate inertial properties for, particles, systems of particles, and rigid bodies. | Homework and/or problem sets and/or quizzes and/or tests and/or labs | Evaluate and utilize mathematical principles, technology, scientific and quantitative data |
| Categorize and calculate the forces acting on an object. | Homework and/or problem sets and/or quizzes and/or tests and/or labs |  |
| Apply Newton’s Laws to generate the three- dimensional equations of motion for particles, systems of particles and/or rigid bodies. | Homework and/or problem sets and/or quizzes and/or tests and/or labs |  |

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| **ICS code for this course** | POSTSECONDARY VOCATIONAL (PSV) - 1.26.01 - INDUSTRIAL |
| **Should any major restriction(s) be listed on this course? If so, select "yes" and list the appropriate major restriction code(s) or select "no".** | No  N/A |
| **Is the course an “International or Diversity Focus” course?** | No, not International or Diversity Focus |
| **Is the course a General Education course?** | Yes |
| **Is the course a Writing Intensive course?** | No |
| **Is the course repeatable\*?**  (A repeatable course may be taken more than one time for additional credits. For example, MUT 2641, a 3 credit hour course can be repeated 1 time and a student can earn a maximum of 6 credits).  \*Not the same as Multiple Attempts or Grade Forgiveness | No |
| **Do you expect to offer this course three times or less (experimental)?** | No |

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| **Impact of Course Proposal** | |
| **Will this new course proposal impact other courses, programs, departments, or budgets?** | No |
| **If the answer to the question above is “yes”, list the impact on other courses, programs, or budgets?** | N/A |
| **Have you discussed this proposal with anyone (from other departments, programs, or institutions) regarding the impact? Were any agreements made? Provide detail information below.** | |
| N/A | |

**Section II, Justification for proposal**

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| **Provide justification (below) for this proposed curriculum action** |
| The addition of this course will broaden the optional STEM courses offered at FSW and provide a wider variety of courses to help prepare students to be successful in follow-on engineering coursework. |

**Section III, Important Dates and Endorsements Required**

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| **List all faculty endorsements below. (Note that proposals will be returned to the School or Division if faculty endorsements are not provided).** |
| Sabine Eggleston  iVAN mELENDEZ  Laurice Garrett  Bert Lawrence  Karen Buonocore |

**nOTE:** Changes for the Fall 2016 term must be submitted to the Dropbox by the February 5, 2016 deadline and approved no later than the March 4, 2016 Curriculum Committee meeting. Changes during mid-school year are NOT permitted. Extreme circumstances will require approval from the appropriate Dean or Associate Vice President as well as the Provost and Vice President of Academic Affairs to begin in either the Spring 2016 or Summer 2016 term.

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| **Term in which approved action will take place** | Fall 2016 |

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| **Required Endorsements** | **Type in Name** | **Select Date** |
| **Department Chair or Program Coordinator/Director** | Sabine Eggleston | 1/28/2016 |
| **Academic Dean** | Martin McClinton | 1/29/2016 |

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| **Select Curriculum Committee Meeting Date** | March 4, 2016 |

Completed curriculum proposals must be uploaded to Dropbox by the deadline. Please refer to the *Curriculum Committee Calendar* document available in the document manager in the FSW Portal:

* Document Manager
* VP Academic Affairs
* Curriculum Process Documents

**Important Note to Faculty, Department Chairs or Program Coordinators, and Deans or an Associate Vice President:**

Incomplete proposals or proposals requiring corrections will be returned to the School or Division. If a proposal is incomplete or requires multiple corrections, the proposal will need to be completed or corrected and **resubmitted to the Dropbox for the next Curriculum Committee meeting**. All Curriculum proposals require approval of the Provost and Vice President of Academic Affairs. Final approval or denial of a proposal is reflected on the completed and signed Summary Report.