# **PURDUE UNIVERSITY**

REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(100-400 LEVEL)

EFD 30-11

|   |                                    |                    |                                    | (100-4001                               | -EVEL) Limit     | Nel        |                                    |                                  |              |
|---|------------------------------------|--------------------|------------------------------------|---|------------------|------------|------------------------------------|----------------------------------|--------------|
| DEPARTMENT                              | Mechanical Engineerin              | g                  |                                    | T FEFECTIV                              | VE SESSION Sprin | ig 2011    |                                    |                                  |              |
|   | Please check the items             | helow which        | n describe the purpose of t        | this request                            | VE 3E33ION       |            |                                    |                                  |              |
|   | . New course with                  |                    |                                    | .nis request.                           | □ 7 Cho          | in         |                                    | /-1                              | <del> </del> |
|   |                                    |                    | at another campus                  |   |                  |            |                                    | (department head signature on    | ly)          |
|   |                                    |                    | it another campus                  |   | L1               |            | instructional hour                 |                                  |              |
|   |                                    |                    |                                    |   |                  | _          | course description                 | n                                |              |
|   |                                    |                    |                                    |   |                  |            | course requisites                  |                                  |              |
|   |                                    |                    |                                    |   |                  |            |                                    | d (department head signature o   | nly)         |
|   | <ol><li>Change in course</li></ol> | credit/type        |                                    |   |                  |            | om one departme                    |                                  | • .          |
| PROPOSED:                               |                                    |                    | _EXISTING:                         |   |                  |            | ·····                              |                                  | т —          |
| Subject Abbreviation                    |                                    |                    |                                    | I KAE                                   | <del></del>      | <b>-</b>   |                                    | TERMS OFFERED                    |              |
| Subject Appreviation                    | '                                  |                    | Subject Abbreviation               | ME                                      |                  | IJ         |                                    | Check All That Apply:            |              |
|   |                                    | <del></del>        | <del>-</del>                       | r                                       |                  | _          | ✓ Summer                           | ✓ Fall ✓ Spring                  |              |
| Course Number                           |                                    |                    | Course Number                      | 27000                                   |                  |            | CAN                                | MPUS(ES) INVOLVED                | 7            |
|   |                                    |                    |                                    |   |                  |            | Calumet                            | N. Central                       | 1            |
| Long Title Ba                           | sic Mechanics I                    |                    |                                    |   |                  | 7          | Cont Ed                            | Tech Statewide                   | -            |
| <u> </u>                                |                                    |                    |                                    |   |                  |            | Ft. Wayne                          | W. Lafayette                     |              |
| Short Title Ba                          | sic Mechanics I                    |                    |                                    |   |                  | ¬          | Indianapolis                       |                                  |              |
| <u> </u>                                |                                    | he Office of the R | Registrar if omitted. (22 CHARACTE | EDS ONLY)                               |                  | '          | monunique                          |                                  |              |
|   |                                    | 16 01110 01        | egisilai ii ommos, jee o           | ENG ONE I)                              |                  | ŀ          |                                    |                                  | _ <b> </b>   |
|   | CREDIT TYPE                        |                    | il                                 |   | COURSE ATTRIBU   | JTES: C    | heck All That Apply                | . =                              |              |
| <ol> <li>Fixed Credit: Cr. I</li> </ol> | Hrs. 3                             |                    | 1. Pass/Not Pass Only              |   | 7. Regist        | tration Ap | proval Type                        |                                  |              |
| <ol><li>Variable Credit Ra</li></ol>    | ange:                              |                    | 2. Satisfactory/Unsatisfactor      | ry Only                                 | $\Box$           |            | rtment                             | Instructor                       |              |
| Minimum Cr.                             | Hrs                                |                    | 3. Repeatable                      | •                                       | 8. Variab        |            |                                    |                                  |              |
| (Check One)                             | To Or C                            | ]                  | Maximum Repeatable                 | e Credit:                               | 9. Remed         |            |                                    | H                                |              |
| Maximum Cr.                             | ·                                  | l                  | 4. Credit by Examination           | 3 Oreum.                                | $\overline{}$    |            |                                    | 吕                                | 1            |
| 3. Equivalent Credit:                   |                                    | ا ''               | 11                                 |   | 10. Honor        |            |                                    | 님                                | ı            |
| ,                                       |                                    | ╡                  | 5. Designator Required             |   | 11. Full Ti      |            | •                                  | 닏                                |              |
| Thesis Credit:                          | Yes No                             |                    | 6. Special Fees                    |   | 12. Off Ca       | ampus Ex   | perience                           |                                  |              |
| Instructional Type                      |                                    | Meetings Per       | Weeks % of Credit                  | . ,                                     |                  | ry Mediu   |                                    |                                  |              |
|   | Per Mtg                            | Week               | Offered Allocated                  | (Asyn. Or S                             |                  | ive, Text  | -Based, Video)                     | Cross-Listed Courses             | 7            |
| Lecture<br>Recitation                   | 50                                 | 3                  | 15                                 | Syn                                     | <u>Live</u>      |            |                                    | 1                                |              |
| Presentation                            |                                    |                    | <del></del>                        | - ———                                   |                  |            |                                    | Į                                |              |
| atory                                   |                                    |                    |                                    | -                                       |                  |            | <del></del>                        |                                  | -            |
| .²rep                                   |                                    |                    |                                    | -                                       |                  |            |                                    |                                  | 1            |
| Studio                                  |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
| Distance<br>Clinic                      |                                    |                    |                                    |   |                  |            |                                    |                                  | ┑            |
| Clinic<br>Experiential                  |                                    | <del></del>        |                                    |   | <del></del>      |            |                                    |                                  | -            |
| Research                                |                                    |                    |                                    | - ———                                   |                  |            |                                    |                                  | 4            |
| ind. Study                              |                                    |                    |                                    |   |                  |            | <del></del> _                      |                                  |              |
| Pract/Observ                            |                                    |                    |                                    | • |                  |            |                                    |                                  |              |
| COURSE DESCRIPT                         | TION (INCLUDE REQUISIT             | FS):               |                                    |   |                  |            |                                    |                                  | <del></del>  |
|   | sic Mechanics I                    | co <sub>j</sub> .  |                                    |   |                  |            |                                    |                                  |              |
|   | SS. Class 3, cr. 3.                |                    |                                    |   |                  |            |                                    |                                  |              |
| Prerequisite: P                         | PHYS 17200 & MA                    | . 16600 or         | equivalent. Concurr                | rant Prerent                            | visitat MA 26100 | ^ 0. EN    | 100 12200                          |                                  |              |
| Fundamental o                           | concepts of mecha                  | nics: vect         | or operations, force               | and comple                              | JISHE. IVIA ZUTU | O & Ei     | NGM 13200<br>· aquilibrium of      | a particle and of rigid bodie    |              |
| Friction. Distrib                       | outed forces. Cent                 | ters of gra        | wity and centroids. I              | First & seco                            | and moments of   | areas      | <ol> <li>lines and volu</li> </ol> | imes. Applications from          |              |
| structural and I                        | machine elements                   | such as t          | pars, trusses, and fri             | ction device                            | es. Kinematics   | and e      | nuations of mot                    | tion of a particle for rectiline | ar           |
| and curvilinear                         | motion.                            |                    |                                    |   |                  |            | 4                                  | 1011 01 a particio 101 1001      | '" J         |
| I                                       |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
|   |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
| 0.1 (D.)                                |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
| Calumet Department                      | Head                               | Date               | Calumet School Dean                |   | Date             |            |                                    |                                  |              |
|   |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
|   |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
| Fort Wayne Departme                     | ent Head                           | Date               | Fort Wayne School Dean             |   | Date             |            |                                    |                                  |              |
| •                                       |                                    |                    | 1 01y                              |   | Duio             |            |                                    |                                  |              |
|   |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
|   |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
| Indianapolis Departm                    | ent Head                           | Date               | Indianapolis School Dean           |   | Date             |            |                                    |                                  |              |
|   |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
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|   |                                    |                    |                                    |   |                  |            |                                    |                                  |              |
| North Central Departr                   | ment Head                          | Date               | North Central Chancellor           |   | Date             | ^          | 3                                  | $\sim \Lambda \Lambda_{\Lambda}$ |              |
| 7 ~                                     |                                    |                    | 1 1/1/                             | • ///                                   | ·/               | /          | h. Lin                             | () 11-11Wn1 -1                   | /            |
| Lunes                                   | 1) ( lane -                        | 11/00              | V Minter                           | 14/1                                    | - 1/1/1          | ケヘ         | M KUW (M                           | KCIL WUMANA                      | A = A        |
|   | J. Janes                           | 11/23,             | A Yawayay                          | - Je Man                                | 100 × 1011       | دد '       |                                    | 80, 11A 100 th                   | 11           |
| West Lafayette Depai                    | rtment Head                        | Date /             | West Latayette College/Scho        | ∂6l Dean                                | Date             | West I     | afavette Registrar                 | C 1                              | Date         |

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Office of the Registrar FORM 40 REV. 9/06

# **PURDUE UNIVERSITY**

REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE (100-400 LEVEL)

EFD 30-11

| DEPARTMENT Mechanical Engineering   |   | EFFECTIVE SESSION Spring 2                                 | 011   |  |  |  |  |
|---|---|--|---|--|--|--|--|
| RUCTIONS: Please check the items be   | ow which describe the purpose of thi  |  | IVE SESSION   |  |  |  |  |
| 1. New course with sup 2. Add existing course of 3. Expiration of a course 4. Change in course nu 5. Change in course title 6. Change in course cree                            | offered at another campus<br>e<br>mber<br>e   | B. Change 9. Change 10. Change 11. Change                  | e in course attributes (department head signature only) e in instructional hours e in course description e in course requisites e in semesters offered (department head signature only) er from one department to another |  |  |  |  |
| PROPOSED:   | EXISTING:   |  | TERMS OFFERED   |  |  |  |  |
| Subject Abbreviation  Course Number   |   | ME<br>27000  | Check All That Apply:  Summer  Fall  Spring  CAMPUS(ES) INVOLVED  Calumet  N. Central   |  |  |  |  |
| Long Title Basic Mechanics I  |   |  | Cont Ed Tech Statewide  |  |  |  |  |
|   | fice of the Registrar if omitted, (22 CHARACTER   | ·  | Ft. Wayne W. Lafayette  |  |  |  |  |
| CREDIT TYPE  1. Fixed Credit: Cr. Hrs. 3 2. Variable Credit Range:  Minimum Cr. Hrs  (Check One) To Or Maximum Cr. Hrs  3. Equivalent Credit: Yes No 4 4. Thesis Credit: Yes No | 1. Pass/Not Pass Only 2. Satisfactory/Unsatisfactory 3. Repeatable Maximum Repeatable 0 4. Credit by Examination 5. Designator Required 6. Special Fees | Only   | on Approval Type  Department Instructor I  ittle I  Privilege I  ss Experience I  |  |  |  |  |
| Per Mtg   V   | ngs Per Weeks % of Credit Veek Offered Allocated 3 15   | -  | ledium (Audio, Text-Based, Video)  Cross-Listed Courses   |  |  |  |  |
| Friction. Distributed forces. Centers   | s: vector operations, force ar<br>s of gravity and centroids. Fi  | nd couples, free body diagra<br>rst & second moments of ar | ENGR 13200<br>ums, equilibrium of a particle and of rigid bodies.<br>eas, lines and volumes. Applications from<br>d equations of motion of a particle for rectilinear   |  |  |  |  |
| Calurnet Department Head C  | Pate Calumet School Dean  | Date   |   |  |  |  |  |
| Fort Wayne Department Head D  | ate Fort Wayne School Dean  | Date   |   |  |  |  |  |
| ndianapolis Department Head D   | ate Indianapolis School Dean  | Date   |   |  |  |  |  |
| North Central Department Head D   | North Central Chancellor  | Date Date  |   |  |  |  |  |
| Nost Lafayette Department Head D  | ate West Lafayette College/School   | Dean Date W  | est Lafayette Registrar Date  |  |  |  |  |

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TO:

The Engineering Faculty

FROM: The Faculty of the School of Mechanical Engineering

RE:

ME 27000 Prerequisite Changes

The Faculty of the School of Mechanical Engineering has approved the following prerequisite change. This action is now submitted to the Engineering Faculty with a recommendation for approval.

### From:

#### ME 27000 Basic Mechanics I

Sem. 1, 2, & 3 Class 3, cr. 3

Prerequisite: PHYS 17200-Modern Mechanics

Concurrent Prerequisite: MA 26100-Multivariate Calculus

Fundamental concepts of mechanics: vector operations, force and couples, free body diagrams, equilibrium of a particle and of rigid bodies. Friction. Distributed forces. Centers of gravity and centroids. First and second moments of areas, lines and volumes. Applications from structural and machine elements such as bars, trusses and friction devices. Kinetics and equations of motion of a particle for rectilinear and curvilinear motion.

### To:

#### ME 27000 Basic Mechanics I

Sem. 1, 2, & 3 Class 3, cr. 3

Prerequisite: PHYS 17200-Modern Mechanics and MA 16600-Analytical Geometry & Calculus II or equivalent

Concurrent Prerequisite: MA 26100-Multivariate Calculus and ENGR 13200-Transforming Ideas to Innovation II

Fundamental concepts of mechanics: vector operations, force and couples, free body diagrams, equilibrium of a particle and of rigid bodies. Friction. Distributed forces. Centers of gravity and centroids. First and second moments of areas, lines and volumes. Applications from structural and machine elements such as bars, trusses and friction devices. Kinetics and equations of motion of a particle for rectilinear and curvilinear motion.

Reason:

The added concurrent prerequisite of ENGR 13200 is needed because of the course change in the First-Year Engineering program.

James D. Jones. Associate Professor and Associate Head

School of Mechanical Engineering

APPROVED FOR THE FACULTY OF THE SCHOOLS OF ENGINEERING BY THE ENGINEERING CURRICULUM COMMITTEE

ECC Minutes #10

Date 2/2/2011

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