

### Minor in Mechanical Engineering

The purpose of the proposed aggregate courses is to give students from science and other branches of engineering of opportunity to learn the fundamentals of mechanical engineering, to broaden their understanding of science and engineering, and to prepare them for new technological developments such as material science and nanotechnology. Additional knowledge in control and robotics, mechanical design, or thermal-fluids may be acquired through electives. Students interested in the Mechanical Engineering minor must meet with the Program Head of Mechanical Engineering and complete the Mechanical Engineering Minor Program Approval Form. Revision of the form requires the approval of the Program Head.

The minor is intended for students who have satisfied the following prerequisite requirements:

|              |  |
|--------------|--|
| Math 226     | Calculus I (4)                                   |
| Math 227     | Calculus II (4)                                  |
| Phys 220/222 | General Physics with Calculus I & Lab (4)        |
| Phys 240/242 | General Physics with Calculus III & Lab (4)      |
| Chem 180     | Chemistry for the Energy and the Environment (3) |

The minor may be satisfied by a minimum of 21 units (not including prerequisite units) distributed as follows:

|   |                                |                 |
|---|--------------------------------|-----------------|
| Core requirements   | .....                          | 15 units        |
| ENGR 102  | Statics (3)                    |                 |
| ENGR 200  | Materials of Engineering (3)   |                 |
| ENGR 201  | Dynamics (3)                   |                 |
| ENGR 303*   | Engineering Thermodynamics (3) |                 |
| ENGR 309  | Mechanics of Solids (3)        |                 |
| Electives   | .....                          | 6 units         |
| Approved upper division Mechanical Engineering courses. No upper division course from the major can be double-counted towards meeting the elective requirements of the minor or second major. There must be prior approval from the program head. |                                |                 |
| <b>Total</b>  | .....                          | <b>21 units</b> |

To earn a minor in Mechanical Engineering, a student must complete at least 12 of the required 21 core and elective units at SFSU. All courses in the minor must be taken with letter grades (CR/NC is not acceptable).

\* ENGR 303 cannot be used to satisfy requirements in another major.

\*Along with this form ensure you submit "San Francisco State University Request for Change/Declaration of Undergraduate Minor" form to have signed by Director along with Unofficial SFSU Transcripts and a letter of interest

**School of Engineering  
San Francisco State University**

Mechanical Engineering Minor Program Approval Form

Student name: \_\_\_\_\_ Major: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ Email: \_\_\_\_\_

\_\_\_\_\_ Telephone: \_\_\_\_\_

| <b>Prerequisite Courses</b>                           | <b>Units</b> | <b>Semester</b> | <b>Grade</b> |
|---|--------------|-----------------|--------------|
| Math 226 Calculus I                                   | 4            |                 |              |
| Math 227 Calculus II                                  | 4            |                 |              |
| Phys 220/222 General Physics with Calculus I & Lab    | 4            |                 |              |
| Phys 240/242 General Physics with Calculus III & Lab  | 4            |                 |              |
| Chem 180 Chemistry for the Energy and the Environment | 3            |                 |              |
| <b>Core Requirements (15 units)</b>                   |              |                 |              |
| ENGR 102 Statics                                      | 3            |                 |              |
| ENGR 200 Materials of Engineering                     | 3            |                 |              |
| ENGR 201 Dynamics                                     | 3            |                 |              |
| ENGR 303* Thermodynamics                              | 3            |                 |              |
| ENGR 309 Mechanics of Solids                          | 3            |                 |              |
| <b>Electives (6 units)</b>                            |              |                 |              |
|   |              |                 |              |
|   |              |                 |              |
|   |              |                 |              |
| <b>Total (21 units)</b>                               |              |                 |              |

Program Head Approval: \_\_\_\_\_ Date: \_\_\_\_\_

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