**Course Outline Template for NEW COURSES.**

See the course outlines available from [www.eng.mu.edu/schneide](http://www.eng.mu.edu/schneide) for guidance when completing this form. Be sure to complete both parts of this form – the ABET Outline (part 1) as well as the ABET Outcomes/Assessment Instrument/Assessment Criteria information (part 2).

If you are proposing an upper division undergraduate elective that may also carry graduate credit, be sure to specifically indicate the extra effort that will be expected of graduate students enrolled in the class to justify award of graduate credit.

Be sure to delete all the comments before submitting the completed outline.

Both Parts 1 and 2 are in the form of tables. The table cells will expand as needed to accommodate your entries.

After completing this form, submit the electronic copy to the appropriate committee chair.

For courses which carry UNDERGRADUATE credit only –

submit to the EECE Undergraduate Committee Chair.

For undergraduate courses that will carry graduate credit (i.e, a course with crosslisted with both 4xxx and 5xxx course numbers) –

submit the completed form to both the EECE Undergraduate Committee Chair, AND the Graduate Committee Chair.

For GRADUATE course –

forward the completed form to the Graduate Committee Chair.

EECE Undergraduate Committee Chair: susan.schneider@marquette.edu

EECE Graduate Committee Chair: michael.t.johnson@marquette.edu

**Part 1: The ABET Outline**

|  |
| --- |
| **ELEN, EECE or COEN XXX: <Course Title>** |
| **Course Description**: |
| <enter the suggested course description> |
|  |
| **Required or Elective**: | <specify if required or elective and the program> |
|  |
| **Prerequisites**: | <specify prerequisites by MU course number – or by topic, if necessary> |
|  |
| **Course Materials** |
| **Required**: | <for textbooks, list the author, title (and edition), publisher, copyright date><for other materials, give sufficient information so that the materials may be ordered by the bookstore> |
| **Optional**: | <ditto above instruction> |
|  |
| **Course Goals:** |
| <enter the course goals here> |
|  |  |
| **Course Objectives:** |
| *By the end of this course you should be able to …* |
| <enter the course objectives in the form of a numbered list > |
|  |
| **Course Topics** | **In Text** |
| <list the course topics> | <linked to the material in the required text(s)> |
|  |
| **Class Schedule**: | <see course outlines as a guide> |
|  |
| **Contribution to Professional Component**: | Engineering Science <xxx%> |
|  | Engineering Design <xxx%> |
|  |
| **Contribution to Program Outcomes** | *Partial fulfillment of ABET Criterion 3 outcomes*<A,B,C,D,E,F,G,H,I,J,K,L> |
|  |
| **Course Coordinator**: | <your name> |
|  |
| **Last Modified**:  | <date submitted to committee> |

**Part 2: The ABET Outcomes/Assessment Instruments and Assessment Criteria Supplement**

  **ELEN/EECE/COEN XXX: Course Title**

 **ABET Criterion 3 Outcomes**

 **Assessment Instruments, and**

 **Assessment Criteria**

|  |  |
| --- | --- |
| **A.** | **An ability to apply knowledge of mathematics, science and engineering.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **B.** | **An ability to design and conduct experiments, as well as to analyze and interpret data.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>*  |
|  |
| **C.** | **An ability to design a system, component, or process to meet desired needs within realistic constraints – economic, environmental, social, political, ethical, health/safety, manufacturability and sustainability.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **D.** | **An ability to function on multi-disciplinary teams** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **E.** | **An ability to identify, formulate, and solve engineering problems** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **F.** | **An understanding of professional and ethical responsibility.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **G.** | **An ability to communicate effectively.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **H.** | **The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **I.** | **A recognition of the need for and an ability to engage in life-long learning.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **J.** | **A knowledge of contemporary issues.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **K.** | **An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
| **L.** | **An ability to apply probability and statistics and higher mathematics to the solution of engineering problems.** |
|  | <Enter the measures to be used to assess this outcome> |
|  | *<Enter the criteria used to establish minimum competence>* |
|  |
|  |
| **For Graduate Credit in Undergraduate Upper Division Elective Courses** |
| <Enter information which indicates the extra effort required of graduate courses in “#-sign” courses so that they may awarded graduate credit for this course.> |

**ABET ASSESSMENT**

If this course will be used as part of the summative assessment of the ABET student learning outcomes, instructors of this course are required to submit a short written report to the department for ELEN/EECE/COEN XXX which

* discusses their perceptions of student knowledge and ability to apply the listed prerequisites, and
* provides qualitative and quantitative information which discusses the attainment of objectives listed above for ELEN/EECE/COEN XXX .
* makes recommendations for actions/strategies to be employed to improve the number of students attaining satisfactory performance.

These reports will be reviewed by the department chair and the chair(s) of the Undergraduate and/or Graduate Committee. These committees in consultation with the course coordinator and instructors will recommend modifications to the course and/or enhancements to the objectives and criteria as needed. The recommendations will be forwarded to the EECE faculty for approval, if necessary.