1. **Purpose:**

The purpose of this procedure is to define the steps that the IE Department follows in its continuous assessment and improvement process regarding the Undergraduate Curriculum.

2. **Scope:**

This procedure applies to IE Chair, Chair of the Undergraduate Curriculum Committee, IE Faculty, and IE Department Office Staff who are responsible for and involved in performance and needs assessment, design and implementation of both innovative and incremental curriculum changes, and the implementation and communication of the IE undergraduate curriculum. The entire process considers various issues such as employer, alumni, and students’ needs, departmental resources and other constraints, ABET requirements, and the pursuit of curriculum excellence through continuous improvement.

3. **Related Procedures and Other Documentation:**

<table>
<thead>
<tr>
<th>Procedure No.</th>
<th>Description of Procedure</th>
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<tbody>
<tr>
<td>IEP 01.1</td>
<td>Semester Time Table Planning &amp; Development Procedure</td>
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**Other Documents**

<table>
<thead>
<tr>
<th>Description of Document</th>
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</thead>
<tbody>
<tr>
<td>Curriculum 98</td>
</tr>
<tr>
<td>IE Student Guide</td>
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</table>

4. **Procedure:**

4.1 Prior to or at the beginning of each fall semester, the IE Department Chair establishes the membership of the IE Undergraduate Curriculum Committee (UGCC) for the academic year, and ask one IE faculty member to serve as the Chair of the committee.

4.2 The IE Chair and the UGCC Chair meet to discuss the “charge” to the UGCC in terms of the types of assessment studies and improvement changes to be addressed for the academic year. See Note 1.

4.2.1 If the charge is for innovative curriculum redesign, then go to step 4.3.

4.2.2 If the charge is for incremental, refinement changes, then go to step 4.11.
NOTE 1: To ensure that the IE curriculum remains current with the rapidly changing and expanding needs of the profession, innovative (major redesign) curriculum changes are typically assigned as a “charge” to the UGCC every five years. Incremental (Kaizen) curriculum changes are assigned as the “charge” on an annual basis, or as specific opportunities for refinement type improvements are identified.

INNOVATIVE CURRICULUM REDESIGN CHANGES

4.3 The UGCC Chair, often working with the IE Chair, determines and initiates the appropriate types of measurement tools and other means to collect data from employers, alumni, and students to assess the performance of the IE curriculum in meeting their needs and to identify future needs and requirements to be considered in the curriculum redesign process. See Note 2.

NOTE 2: Measurement tools typically used include Delphi Methods, alumni surveys, graduating senior exit interviews and questionnaires, focus groups, personal discussions, the Student Advisory Committee, and unsolicited “customer feedback”.

4.4 The UGCC Chair collects and analyzes the data and information obtained from the application of the various measurement tools, discusses the results and implications with the UGCC members, prepares a summary presentation to be given at an IE Faculty meeting, and invites the IE Faculty to attend and participate in one or more “Strategic Curriculum Planning” (SCP) sessions.

4.5 The UGCC Chair arranges one or more SCP sessions to brainstorm major curriculum changes based on the results of the data collection and analysis. The IE Faculty also review and revise program objectives and outcomes as appropriate. SCP sessions are typically held on site and scheduled for 3 or more hours per session. The UGCC Chair also arranges for the use of a professional group facilitator skilled in quality and process improvement techniques. See Note 3.

NOTE 3: The Office for Quality Improvement (OQI) on Campus is typically contacted to provide a professional group facilitator.

4.6 The UGCC Chair works with the UGCC members, typically over several meetings, to take the results of the IE Faculty SCP sessions (and any other feedback from interested parties) and develops a draft of a redesigned IE Undergraduate Curriculum.

4.7 After the UGCC has completed the redesign of the curriculum, the UGCC Chair prepares a committee motion for approval to be presented at the IE Faculty Meeting, and distributes the draft curriculum to the IE Faculty for review and comments prior to the IE Faculty meeting.

4.8 The IE Faculty discuss and approve the motion for approval of the “New IE Undergraduate Curriculum”.

4.9 The UGCC Chair presents the faculty approved IE Undergraduate Curriculum to the College of Engineering APCRC Committeee for their information and approval.
4.10 The UGCC Chair work with the IE Student Status Examiner to prepare a new IE Student Guide, revise the advising checklists, and begin the process of informing students about the New Curriculum and the option to select it as their curriculum.

NOTE 4: Once approved, the redesigned curriculum (and/or other curriculum changes) are usually implemented at the start of the following fall semester.

END OF PROCEDURE

INCREMENTAL/REFINEMENT CURRICULUM CHANGES

4.11 The UGCC Chair initiates the appropriate types of measurement tools to assess the performance of the IE curriculum in meeting the defined program objectives and outcomes, and to identify any minor changes or refinements that are necessary or appropriate. See Notes 4 and 5.

NOTE 5: Measurement tools typically used include graduating senior exit interviews and questionnaires, focus groups, personal discussions, individual course evaluations, the Student Advisory Committee, and unsolicited “customer feedback”.

NOTE 6: Minor curriculum changes are often necessitated by changes in other department’s courses. Examples are changes in core math, science, statistics, and computer science courses.

4.12 The UGCC meets at various times during the academic year to analyze the information/feedback obtained and determine the minor changes that should be made to the IE Undergraduate Curriculum.

4.13 The UGCC Chair prepares a committee motion for approval of the changes to be presented at the IE Faculty Meeting. The proposed changes and the reasons for them are usually distributed to the IE Faculty for review and comments prior to the IE Faculty meeting.

4.14 The IE Faculty discusses and approves the motion for approval of the curriculum changes. See note 4.

4.15 The UGCC Chair work with the IE Student Status Examiner to update the IE Student Guide, revise the advising checklists, and begin the process of informing students about the curriculum changes that might affect them.

END OF PROCEDURE