

SURVEY OF ENGINEERING PROGRAM CHANGES

(SPONSORED BY ABET)

You have been selected to complete this survey because you administer at least one of the following engineering programs

- Aerospace
- Chemical
- Civil
- Computer
- Electrical
- Industrial
- Mechanical

While you may also administer another program, this survey focuses only on those programs listed above.

Instructions: *If circles are provided, please completely fill in the circle next to your answer (example: ● Yes ○ No). If boxes are provided, please write inside the box (example: [03]). If you are asked to specify an answer, please clearly print your answer on the line provided.*

1. What is the deadline for engineering students to **declare a major** in your program?

- Upon entrance to the institution
- End of first year
- End of second year
- Third year or later

2. What is your program's **policy on co-op experiences** for students?

- No policy or position
- No policy, but most faculty recommend
- Policy is to recommend
- Policy is to require for graduation

3. What is your program's **policy on the Fundamentals of Engineering (FE) Examination**? (Check one in each row.)

10 years ago:

- No policy or position
- Policy is to recommend taking the FE
- Policy requires taking the FE
- Policy requires passing the FE

Currently:

- No policy or position
- Policy is to recommend taking the FE
- Policy requires taking the FE
- Policy requires passing the FE

4. How important are the following in **assessing learning outcomes** in your program?

<u>Importance of:</u>	Not At All	Slightly	Moderately	Very Important
FE data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GRE scores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Locally-designed instrument(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Over the past decade how, if at all, has your program's emphasis on **these curricular topics** changed?

Change in program emphasis on:	Significant Decrease	Some Decrease	No Change	Some Increase	Significant Increase
Engineering design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interpersonal/group communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering in global and social contexts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verbal communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge of contemporary issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experimental methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foundational math	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic engineering science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of modern engineering tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineering problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Importance of life-long learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. To what extent were these changes (listed in question 5 above) influenced by each of the following?

Extent of influence on curricular change:	Not At All	Slightly	Moderately	A Great Deal
Collective faculty decision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change in program goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizational restructuring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ABET accreditation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decreased resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industry/employer feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decision by Dean or other administrator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NSF coalition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research on undergraduate engineering education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My own initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. To what extent, if at all, has ABET's EC2000 influenced your program's emphasis on these **curricular components**?

<u>Change in program emphasis on:</u>	Not At All	Slightly	Moderately	A Great Deal
Required courses in science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Required courses in engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Elective courses in major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Required courses in social sciences and/or humanities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design course(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Program-related out-of-class activities (e.g. design competition, field trips)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. To what extent do you agree or disagree with the following statements about **current curriculum planning and revision practices** in your program?

<u>Statements about curriculum planning and revision:</u>	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Faculty in my program periodically review the program mission and objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty in my program generally resist new curricular ideas or experimentation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Program faculty collaborate on curriculum development and revision.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The program curriculum is a frequent agenda item at program meetings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum revisions are typically made in response to some problem rather than through a periodic planning process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum planning in my program is systematic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum decisions are usually based on opinions rather than data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty are knowledgeable about the program's curriculum beyond their own courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. What proportion of your program faculty generally supports the following activities?

Proportion of faculty who support:	Almost None	Less than Half	About Half	More than Half	Almost All
Ongoing, systematic efforts to improve program quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum/course development and revision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessment of student learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greater emphasis on students' "soft" skills (e.g. teamwork, communication)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using assessment information in decision-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Over the past decade, how has the **emphasis your program gives to teaching** changed?

Change in program emphasis on teaching in:	Significant Decrease	Some Decrease	No Change	Some Increase	Significant Increase
Faculty recruiting and hiring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty promotion and tenure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty salary and merit increases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional development activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Over the past decade, have there been any changes in your program's **use of assessment information** for:

Change in program's use of assessment data for:	Significant Decrease	Some Decrease	No Change	Some Increase	Significant Increase
Ongoing, systematic efforts to improve program quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External funders/sponsors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internal budget allocations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ABET accreditation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. If you have gone through an EC2000 review, or are currently preparing for one, indicate the extent to which EC2000 increased your knowledge of the strengths and weaknesses of your program.

- No EC2000 review → Go to Question 14.
- Not at all
- Some
- Moderately
- A great deal

13. If weaknesses were identified, which one of the following best describes your **program's financial response**?

- No weaknesses identified
- No financial action taken
- Secured additional institutional funds to address weakness(es)
- Reallocated funds to address weakness(es)
- Raised external funds to address weakness(es)

14. How adequate are resources to sustain and support EC2000 accreditation?

- Not adequate
- Adequate
- More than adequate

15. **Over the past decade**, approximately how much have the following institutional **resources for your program** changed?

<u>Approximate change in program resources over the past 10 years:</u>	<u>Decrease</u>			No Change	<u>Increase</u>		
	<u>>10%</u>	<u>5 - 10%</u>	<u>< 5%</u>		<u>< 5%</u>	<u>5 - 10%</u>	<u>>10%</u>
Instructional staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Institutional funds for innovations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty professional development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. How familiar are you with ABET's EC2000 Accreditation Criterion on student learning outcomes?

- Not at all
- Slightly Familiar
- Moderately Familiar
- Very Familiar

17. How long have you been administratively responsible, to some degree, for your undergraduate engineering program?

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 Years

18. How many years have you been employed by your current institution?

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 Years

19. How many years have you been teaching as an engineering faculty member?

--	--

 Years

20. What is your gender? Male Female

21. What is your ethnic background? (Indicate all that apply.)

- White/European American
- Black/African American
- Hispanic or Latino
- Asian
- American Indian or Alaska Native
- Hawaiian or other Pacific Islander
- Other (please specify) _____

22. What is the major field of your highest degree?

- Aerospace Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Other (please specify) _____

23. Please provide any additional comments that will help us understand changes in your undergraduate engineering program.

Thank you for your participation!

Please return your completed survey in the prepaid envelope provided.