Department of
Electrical & Computer Engineering

Computer Engineering Program
Alumni and Employer Surveys

Submitted to

Engineering Accreditation Commission of ABET, Inc.

Prepared by the

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SouthCoast Development Partnership

Correspondence and inquiries should be addressed to: Center for Policy Analysis, University of Massachusetts Dartmouth, 285 Old Westport Road, North Dartmouth, Massachusetts 02747-2300 (telephone: 508-990-9660; fax: 508-999-8374).

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Polling and Program Evaluation Research Series No. 95
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EXECUTIVE SUMMARY

The Department of Electrical and Computer Engineering at UMass Dartmouth, which offers undergraduate programs of study leading to a Bachelor of Science degree in either Electrical Engineering or Computer Engineering, is in the process of reaccreditation. The organization conducting the reaccreditation is the Engineering Accreditation Commission of ABET, Inc., an accreditor for college and university programs in applied science, computing, engineering, and technology.

To maintain their accreditation with ABET, both the Electrical and Computer Engineering programs must report on the performance of their B.S. degree recipients 3 to 5 years after graduation, particularly in terms of each program’s effectiveness in attaining its stated educational objectives and outcomes. Accordingly, in 2008 the Computer Engineering program conducted a survey of alumni who graduated between 2003 and 2008 and a survey of employers who employed these graduates. The results of the surveys were included in the program’s self-study report.

After a subsequent site visit in 2010, ABET cited a weakness in the program’s educational objectives and recommended a change that provided stronger focus on the experiences of graduates. Thus, the Center for Policy Analysis was asked to undertake the current analysis that measures the Computer Engineering program’s success in meeting these new educational objectives.

Alumni Survey

A total of 62 surveys were successfully mailed or emailed to Computer Engineering alumni from the Class of 2003 through the Class of 2008. Twenty-eight surveys were completed and returned by mail (N=6) and on-line (N=22), for a response rate of 45 percent.

Results include:

Measures Related to Educational Objective I: Professional Practice

- All but three alumni (89%, N=25) report that they are employed, while 11 percent (N=3) of alumni are employed and enrolled in graduate school, 7 percent (N=2) are enrolled in a graduate program but not employed, and one alumnus is not employed.
- More than two-thirds of alumni (68%) describe their current position as Product Design and Development, followed by Project Management (12%), Field Engineering (8%), Research and Development (4%), Consulting (4%), and “other” (4%).
- Fifty-six percent of alumni (56%) report that they have worked for their employer for more than 3 years, while 8 percent have worked for their employer less than 6 months, 4 percent have worked 7 to 12 months, 16 percent have worked 1 to 2 years, and 16 percent have worked for 2 to 3 years.
- Thirty-six percent of alumni (36%) report that they supervise employees; 24 percent supervise 2 to 3 employees, 8 percent supervise 4 to 10 employees, and 4 percent supervise 11 to 20 employees. No alumni supervise more than 20 individuals.
- Eighty-eight percent of alumni (88%) report that they are employed in a STEM field (science, technology, engineering, and mathematics).
Measures Related to Educational Objective II: Professional Growth

- Forty-six percent of alumni (46%) have taken graduate courses since their graduation from UMass Dartmouth; 11 percent have taken 3 to 6 credits, zero percent have taken 7 to 12 credits, 7 percent have taken 13 to 20 credits, 7 percent have taken 21 to 30 credits, and 21 percent have taken more than 30 credits.

- Two alumni have received an MBA and one has received an MS degree in Engineering since their graduation from UMass Dartmouth, although 89 percent of alumni (89%) have not received another degree.

- In terms of professional development:
  - 71 percent of alumni report that they have attended short courses or workshops,
  - 89 percent have attended training programs or conferences,
  - 82 percent have assumed greater responsibility or leadership, or been promoted since their initial employment, and
  - 36 percent have made a transition into another technical or professional career.

Measures Related to Educational Objective III: Professional Growth

- Twenty-five percent of alumni (25%) report that they are members of a professional society; 14 percent are members of one professional society, 7 percent are members of two professional societies, and 4 percent are members of more than two professional societies.

- Twenty-nine percent of alumni (29%) report that they have been engaged in voluntary professional or community service doing tasks related to their profession.

- Seventy-five percent of alumni (75%) indicate that they are aware of the social ramifications of their professional work in their career.

- Seventy-nine percent of alumni (79%) indicate that they are aware of the ethical ramifications of their professional work in their career.

Employer Survey

To further measure the program’s success in satisfying its three educational objectives, an on-line employer survey was conducted of businesses who have hired UMass Dartmouth Computer Engineering B.S. recipients who graduated between 2003 and 2008. A total of 11 employers were contacted by email or telephone and asked to complete the survey online. Follow-up calls and emails were made to employers who did not initially complete the survey to increase the response rate. A total of 7 surveys were completed for a response rate of 64.0 percent. These respondents employ a total of 22 UMass Dartmouth Computer Engineering alumni, which represents 26.8 percent of the 82 alumni who graduated between 2003 and 2008. Results of the employer survey include:
Measures Related to Educational Objective I: Career Advancement

- Six of the seven employers (86%) indicate that 100 percent of the UMass Dartmouth Computer Engineering graduates they have employed in the last 3 to 5 years have a job title that falls in one of the categories included in Educational Objective 1.¹ This figure represents 77 percent of the total alumni employed by respondents.

Measures Related to Educational Objective II: Professional Growth

- Five of the seven employers (71%) report that 100 percent of the UMass Dartmouth Computer Engineering graduates they employ have demonstrated continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers. This figure represents 64 percent of the total alumni employed by respondents.

Measures Related to Educational Objective III: Professional Conduct

- Six of the seven employers (86%) report that 100 percent of the UMass Dartmouth Computer Engineering graduates they employ have demonstrated an awareness of the social and ethical ramifications of their work. This figure represents 77 percent of the total alumni employed by respondents.

Overall Performance of Alumni

- Employers were asked to rate the performance of the UMass Dartmouth Computer Engineering graduates that they employ. Eighty-six percent of employers (86%) rate the graduates they employ as excellent, while 14 percent rate the performance of graduates as very good. These figures represent 77 percent and 23 percent of the total alumni employed by respondents respectively. No employers rate the graduates they employ as satisfactory, fair, or unsatisfactory.

¹ These titles include product design and development, field engineering, quality control, research and development, manufacturing, consulting, testing, project management, and technical marketing.
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1.00 INTRODUCTION

The Department of Electrical and Computer Engineering at UMass Dartmouth is in the process of reaccreditation. Accreditation is a peer-review process that assures that the education provided by institutions of higher education meets acceptable levels of quality. The organization conducting the reaccreditation is the Engineering Accreditation Commission of ABET, Inc., an accreditor for college and university programs in applied science, computing, engineering, and technology.

As part of the accreditation process, the department’s Computer Engineering program is required to measure its effectiveness in attaining its stated educational objectives and outcomes. Success in meeting these educational objectives and outcomes is measured by a periodic assessment and evaluation process. Specifically, ABET requires the program to satisfy the following three criteria:

Criteria I: Program Educational Objectives

ABET requires each program that seeks accreditation or reaccreditation to have in place:

(a) published educational objectives that are consistent with the mission of the institution and these criteria,
(b) a process that periodically documents and demonstrates that the objectives are based on the needs of the program’s various constituencies, and
(c) an assessment and evaluation process that periodically documents and demonstrates the degree to which these objectives are attained.

Criteria II: Program Outcomes

Engineering programs must demonstrate that their students attain stated outcomes that foster the attainment of the program educational objectives.

Criteria III: Continuous Improvement

Each program must show evidence of actions to improve the program. These actions should be based on available information, such as results from Criteria I and Criteria II.

1.10 ALUMNI AND EMPLOYER SURVEY, 2008

In 2008, the program conducted a survey of Computer Engineering alumni who graduated from the program between 2003 and 2008. A survey of employers who employed these graduates was also undertaken. The goal of the surveys was to measure the degree to which alumni and employers believed that the Computer Engineering program met its educational objectives and outcomes. The results of the surveys were included in the program’s self-study report.

After a subsequent site visit in 2010, ABET cited a weakness in the program’s educational objectives and recommended a change that provided stronger focus on the experiences of graduates. Thus, the Center for Policy Analysis was asked to undertake the current analysis of alumni and employers using a survey questionnaire that measures the program’s success in meeting these new educational objectives.
1.20  PROGRAM EDUCATIONAL OBJECTIVES

The alumni survey includes measures that are directly related to the Computer Engineering program’s educational objectives. The objectives include:

Objective I: Professional Practice

Three to five years after graduation, our graduates will have achieved:

Employment in the Computer Engineering field in various capacities including product design and development, field engineering, quality control, research and development, manufacturing, consulting, testing, project management, and technical marketing.

Objective II: Professional Growth

Three to five years after graduation, our graduates will have achieved:

Continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers.

Objective III: Professional Conduct

Three to five years after graduation, our graduates will have achieved:

Awareness of the social and ethical ramifications of their work.
2.00 METHODOLOGY

2.10 ALUMNI SURVEY

The alumni survey questionnaire was developed by faculty of the Department of Electrical and Computer Engineering and was mailed/ emailed to 63 Computer Engineering alumni who graduated in the years 2003 through 2008. A copy of the survey can be found in Appendix A. Several strategies were employed to increase the survey’s response rate:

- A postcard was mailed to alumni to announce that the survey would be arriving in the mail within a few days.
- The survey questionnaire, cover letter, and business reply envelope were mailed four days after the postcard. Alumni were able to complete the survey and return it in the postage paid business reply envelope or to complete the survey on-line.
- Two follow-up calls were made to alumni who did not complete a survey and a second survey was mailed to these individuals.
- A postcard was mailed two weeks later to invite those who did not respond to the survey to complete the survey on-line. A second postcard was mailed a week later.
- Department faculty made personal contact with alumni by telephone or email.

2.20 EMPLOYER SURVEY

To further measure the program’s success in satisfying its three educational objectives, an on-line employer survey was conducted of businesses who have hired UMass Dartmouth Computer Engineering B.S. recipients who graduated between 2003 and 2008. Employer contact information was obtained from Computer Engineering faculty and from the alumni surveys. A total of 11 employers were contacted by telephone and email and asked to complete the survey online. Follow-up calls and emails were made to employers who did not initially complete the survey to increase the response rate.

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2 The actual number of alumni for this period was 82. However, contact information was not available for all alumni.
3 A copy of the employer survey can be found in Appendix B.
4 The survey asked alumni to provide the name and contact information of their employer.
3.00 Alumni Survey Results

A total of 63 surveys were mailed or emailed to Computer Engineering alumni from the Class of 2003 through the Class of 2008. One survey was returned because it did not have a deliverable address, thus 62 surveys were successfully mailed or emailed to alumni. A total of twenty-eight surveys were completed and returned by mail (N=6) and on-line (N=22), for a response rate of 45 percent. Results of the alumni survey follow.6

3.10 Year of Graduation

There is a relatively broad distribution of alumni in terms of year of graduation, with the highest percentage of alumni graduating in 2006 (32%) (see Table 1).

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>Class</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>4</td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>2004</td>
<td>3</td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>2005</td>
<td>6</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>2006</td>
<td>9</td>
<td></td>
<td>32%</td>
</tr>
<tr>
<td>2007</td>
<td>4</td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>2008</td>
<td>2</td>
<td></td>
<td>7%</td>
</tr>
</tbody>
</table>

5 The sample includes one dual-major (electrical and computer engineering).
6 Percentages in this report may not add to 100 due to rounding.
3.20 **QUESTIONS RELATED TO EDUCATIONAL OBJECTIVE I: PROFESSIONAL PRACTICE**

3.21 **EMPLOYMENT STATUS AND CURRENT POSITION**

All but three alumni (89%) report that they are employed, while 11 percent are employed and enrolled in graduate school, 7 percent are enrolled in a graduate program but not employed, and one alumnus is not employed (see Figure 1). The one graduate who is not employed has been unemployed for 2.5 months.

![Figure 1](image-url)

More than two-thirds of alumni (68%) describe their current position as Product Design and Development, followed by Project Management (12%), Field Engineering (8%), Research and Development (4%), Consulting (4%), and “other” (4%) (see Table 2).

<table>
<thead>
<tr>
<th>Current Position</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Design &amp; Development</td>
<td>17</td>
<td>68%</td>
</tr>
<tr>
<td>Project Management</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Field Engineering</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Consulting</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>

---

7 Percentages do not add to 100 because respondents were able to choose more than one option.

8 “Other” includes Technical Support.
UMass Dartmouth Computer Engineering Program: Alumni and Employer Surveys

3.22 **JOB TITLE**

Alumni were asked to provide their specific job title. Results include:

- Design Automation Engineer
- Engineer
- Integrated Product Team Leader
- Manufacturing Engineer
- Programmer
- Security Sales Engineer
- Senior Associate Utility Engineer
- Senior Electrical Engineer
- Senior Electrical Engineer I
- Senior Firmware Engineer
- Senior Programmer/Analyst
- Senior Software Engineer (N=2)
- Senior Technical Support Engineer, Tools Domain
- Software Developer
- Software Engineer (N=7)
- Software QA Engineer
- Technology Team Leader

3.23 **LENGTH OF EMPLOYMENT WITH CURRENT EMPLOYER**

Fifty-six percent of alumni (56%) report that they have worked for their employer for more than 3 years, while 8 percent have worked for their employer less than 6 months, 4 percent have worked 7 to 12 months, 16 percent have worked 1 to 2 years, and 16 percent have worked for 2 to 3 years (see Figure 2).

**Figure 2**

![How long have you worked with your current employer?](image-url)
3.24  **NUMBER OF PEOPLE SUPERVISED**

Thirty-six percent of alumni (36%) report that they supervise employees; 24 percent supervise 2 to 3 employees, 8 percent supervise 4 to 10 employees, and 4 percent supervise 11 to 20 employees. No alumni supervise more than 20 individuals (see Figure 3).

![Figure 3](image)

### Figure 3

**IN YOUR PRESENT JOB, HOW MANY PEOPLE DO YOU SUPERVISE?**

- None: 64%
- 2-3 individuals: 24%
- 4-10 individuals: 8%
- 11-20 individuals: 4%
- More than 30 individuals: 0%

3.25  **RESPONDENTS EMPLOYED IN A STEM (SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS) FIELD**

A large majority of alumni (88%) report that they are employed in a STEM field (science, technology, engineering, and mathematics) (see Figure 4).

![Figure 4](image)

### Figure 4

**Are You Employed in a STEM Field?**

- Yes: 88%
- No: 12%
3.30 **Questions Related to Objective II: Professional Growth**

3.31 **Graduate Courses Taken Since Graduation**

Forty-six percent of alumni (46%) have taken graduate courses since their graduation from UMass Dartmouth; 11 percent have taken 3 to 6 credits, zero percent have taken 7 to 12 credits, 7 percent have taken 13 to 20 credits, 7 percent have taken 21 to 30 credits, and 21 percent have taken more than 30 credits (see Figure 5). In addition, 2 alumni have received an MBA and one has received an MS degree in Engineering, although eighty-nine percent of alumni (89%) have not received another degree since their graduation from UMass Dartmouth.

![Figure 5](image)

**Figure 5**

*How Many Graduate Course Credits Have You Taken Since You Graduated from UMass Dartmouth?*

3.32 **Professional Development Endeavors**

In terms of professional development, 71 percent of alumni report that they have attended short courses or workshops, 89 percent have attended training programs or conferences, 82 percent have assumed greater responsibility or leadership, or been promoted since their initial employment, and 36 percent have made a transition into another technical or professional career (see Figure 6).

![Figure 6](image)

**Figure 6**

*Percent Who Have Undertaken Various Professional Development Endeavors*
UMass Dartmouth Computer Engineering Program: Alumni and Employer Surveys

3.40 QUESTIONS RELATED TO OBJECTIVE III: PROFESSIONAL CONDUCT

3.41 NUMBER OF PROFESSIONAL SOCIETIES TO WHICH RESPONDENT IS A MEMBER

Twenty-five percent of alumni (25%) report that they are members of a professional society; 14 percent are members of one professional society, 7 percent are members of two professional societies, and 4 percent are members of more than two professional societies (see Figure 7).

![Figure 7](image)

3.42 ENGAGEMENT IN VOLUNTARY PROFESSIONAL OR COMMUNITY SERVICE DOING TASKS RELATED TO PROFESSION

Twenty-nine percent of alumni (29%) report that they have been engaged in voluntary professional or community service doing tasks related to their profession (see Figure 8).

![Figure 8](image)
3.43  AWARENESS OF THE SOCIAL AND ETHICAL RAMIFICATIONS OF PROFESSIONAL WORK

Seventy-five percent of alumni (75%) indicate that they are aware of the social ramifications of their professional work in their career (see Figure 9) and 79 percent indicate that they are aware of the ethical ramifications of their professional work in their career (see Figure 10).

**Figure 9**

*In Your Career, Are You Aware of the Social Ramifications Of Your Professional Work?*

- Yes 75%
- No 25%

**Figure 10**

*In Your Career, Are You Aware of the Ethical Ramifications Of Your Professional Work?*

- Yes 79%
- No 21%
4.00 EMPLOYER SURVEY

To further measure the program’s success in satisfying its three educational objectives, an on-line employer survey was conducted of businesses who have hired UMass Dartmouth Computer Engineering B.S. recipients who graduated between 2003 and 2008. Employer contact information was obtained from program faculty and from graduates who completed the alumni survey and provided contact information for their employer.

A total of 11 employers were contacted by email or telephone and asked to complete the survey online. Follow-up calls and emails were made to employers who did not initially complete the survey to increase the response rate. A total of 7 surveys were completed for a response rate of 64.0 percent. These respondents employ a total of 22 UMass Dartmouth Computer Engineering alumni, which represents 26.8 percent of the 82 alumni who graduated between 2003 and 2008.

Employers were asked to rate the UMass Dartmouth graduates they employ as a whole rather than individually. Results of the survey follow.

4.10 BUSINESS BACKGROUND

Personnel from the following companies responded to the survey:9

- Dialogic Corporation
- Garcia, Galuska, DeSousa Inc.
- Raytheon

Respondents hold the following positions in these companies:

- Principal
- Systems Test Manager

9 Only three of the seven respondents provided business background information.
4.20 QUESTIONS RELATED TO EDUCATIONAL OBJECTIVE I: CAREER ADVANCEMENT

Six of the seven employers (86%) indicate that 100 percent of the UMass Dartmouth Computer Engineering graduates they have employed in the last 3 to 5 years have a job title that falls in one of the categories included in Educational Objective 1.¹⁰ This figure represents 77 percent of the total alumni employed by respondents (see Figure 11).

Figure 11

What Percentage of the UMass Dartmouth Electrical Engineering Graduates That You Have Employed in the Last 3-5 Years Have a Job Title That Falls in One of the Categories Listed in Educational Objective 1?

¹⁰ These titles include product design and development, field engineering, quality control, research and development, manufacturing, consulting, testing, project management, and technical marketing.
4.30 *Questions Related to Educational Objective II: Professional Growth*

Five of the seven employers (71%) report that 100 percent of the UMass Dartmouth Computer Engineering graduates they employ have demonstrated continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers. This figure represents 64 percent of the total alumni employed by respondents (see Figure 12).

**Figure 12**

Specific examples cited by employers where UMass Dartmouth Computer Engineering graduates have demonstrated continuous career improvement include:

- Graduates use computer modeling programs as part of everyday work.
- Employees are enrolled in the master’s degree program.
4.40 Questions Related to Educational Objective III: Professional Conduct

Six of the seven employers (86%) report that 100 percent of the UMass Dartmouth Computer Engineering graduates they employ have demonstrated an awareness of the social and ethical ramifications of their work. This figure represents 77 percent of the total alumni employed by respondents (see Figure 13).

![Figure 13](image-url)
4.50 OVERALL PERFORMANCE

Employers were asked to rate the performance of the UMass Dartmouth Computer Engineering graduates that they employ. Eighty-six percent of employers (86%) rate the graduates they employ as excellent, while 14 percent rate the performance of graduates as very good (see Figure 14). These figures represent 77 percent and 23 percent of the total alumni employed by respondents respectively. No employers rate the graduates they employ as satisfactory, fair, or unsatisfactory.

Figure 14

Overall, How Would You Rate the Performance of the UMass Dartmouth Electrical Engineering Graduates That You Employ?
APPENDIX A: ALUMNI SURVEY INSTRUMENT

I. Background Information

1. Your name:
   - First/Personal: __________________
   - Last/Family: _________________

2. Your email: (optional) __________________________

3. Your year of graduation from UMass Dartmouth: ________________

4. Your major while at UMass Dartmouth: - Choose One -
   - Computer Engineering
   - Computer Engineering
   - Dual Major

II. Professional Practice

5. I am currently... (please check all that apply)
   - Employed
   - Enrolled in graduate school
   - Voluntarily unemployed
     How long have you been unemployed? ________________ [Please skip to Question 11]
   - Involuntarily unemployed
     How long have you been unemployed? ________________ [Please skip to Question 11]
   - Other __________

6. [If employed] I am currently working in...
   - Product design and development
   - Field engineering
   - Quality control
   - Research and development
   - Manufacturing
   - Consulting
   - Testing
   - Project management
   - Technical marketing
   - Other __________________________

OVER PLEASE
7. Your job title: ___________________________ (leave blank if you are unemployed)

8. How long have you worked for your present employer?
   - Less than 6 months
   - 7-12 months
   - 1 to 2 years
   - 2 to 3 years
   - More than 3 years

9. In your present job, how many individuals do you supervise?
   - None
   - 2-3 individuals
   - 4-10 individuals
   - 11-20 individuals
   - 21-30 individuals
   - More than 30 individuals

10. Are you employed in a STEM (science, technology, engineering and mathematics) field?
    - Yes
    - No

III. Professional Growth

11. How many graduate course credits have you taken since you graduated from UMass Dartmouth?
    - None
    - 3-6 credits
    - 7-12 credits
    - 13-20 credits
    - 21-30 credits
    - More than 30 credits

12. What is the highest degree you have completed since you graduated from UMass Dartmouth?
    - Another BS degree (in any field)
    - MS degree in engineering
    - MBA degree
    - Non-engineering MS degree
    - Ph.D. degree or equivalent
    - No other degrees received
13. Have you attended short courses or workshops either in your field or related to your job?
   - Yes
   - No activities

14. Have you attended any training programs or conferences either in your field or related to your job?
   - Yes
   - No

15. Have you assumed greater responsibility or leadership, or been promoted since your initial employment?
   - Yes
   - No

16. Have you made a transition into another technical or professional career?
   - Yes
   - No

IV. Professional Conduct

17. How many professional societies are you a member of?
   - None
   - One
   - Two
   - More than two

18. Have you ever been engaged in voluntary professional or community service doing tasks related to your profession?
   - Yes
   - No

19. In your career, are you aware of the social ramifications of your professional work?
   - Yes
   - No

20. In your career, are you aware of the ethical ramifications of your professional work?
   - Yes
   - No

OVER PLEASE
V. Employer Information

We are required to contact employers of UMass graduates as part of the accreditation process. While it is optional, providing the name of your employer and the name and telephone number or email address of a contact person to whom we may ask a few questions will help us considerably in the accreditation process. Preferably this contact person is someone who knows you well.

Keep in mind that all employer responses will remain strictly confidential and will be reported in aggregate only.

1. Your supervisor's information: (leave these blank if you are unemployed)

   Supervisor's name: __________________________

   Supervisor's email: __________________________

2. Your employer's / university's name: (leave blank if you are unemployed or not in school)

   Employer’s/University’s name____________________________

   Thank you for your assistance in this important project.

   Please return the questionnaire in the enclosed envelope or mail the survey to:
   Center for Policy Analysis
   University of Massachusetts Dartmouth
   285 Old Westport Rd.
   Dartmouth, MA 02747
APPENDIX B: EMPLOYER SURVEY INSTRUMENT

In order to maintain our accreditation with ABET, the Electrical & Computer Engineering Department must report on the performance of our B.S. degree recipients 3 to 5 years after graduation. Please respond to the questions below with respect to Department B.S. recipients you have hired within the last 3 to 5 years. If you employ both electrical and computer engineers, please evaluate one group at a time. You will have an opportunity to evaluate both during the survey.

Q1. How many UMass Dartmouth Computer Engineering graduates have you employed within the last 3-5 years?

Please note: You will have an opportunity to evaluate Computer Engineering graduates later in the survey.

[If zero skip to Q6]

A. Program Educational Objectives

The ECE Department has developed three Program Educational Objectives (PEOs). Your feedback on the questions below will help us assess how well our graduates meet these PEOs.

OBJECTIVE I: PROFESSIONAL PRACTICE

Three to five years after graduation, our graduates will have achieved:

Employment in the Computer Engineering field in various capacities including product design and development, field engineering, quality control, research and development, manufacturing, consulting, testing, project management, and technical marketing.

Q2. What percentage of the UMass Dartmouth Computer Engineering graduates that you have employed in the last 3-5 years have a job title that falls in one of the categories listed in Objective 1 above?

1. 100%
2. 80-99%
3. 60-79%
4. 40-59%
5. 20-39%
6. 1-19%
7. 0%

[If applicable] Please list the job titles of those who do not fall in one of the categories above:
UMass Dartmouth Computer Engineering Program: Alumni and Employer Surveys

OBJECTIVE II: PROFESSIONAL GROWTH
Three to five years after graduation, our graduates will have achieved:

Continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers.

Q3. To your knowledge, what percentage of the UMass Dartmouth Computer Engineering graduates that you employ have demonstrated continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers?

1. 100%
2. 80-99%
3. 60-79%
4. 40-59%
5. 20-39%
6. 1-19%
7. 0%

Can you provide some specific examples where UMass Dartmouth Computer Engineering graduates have demonstrated continuous career improvement?

OBJECTIVE III. PROFESSIONAL CONDUCT

Three to five years after graduation, our graduates will have achieved:

Awareness of the social and ethical ramifications of their work.

Q4. To your knowledge, what percentage of the UMass Dartmouth Computer Engineering graduates that you employ have demonstrated an awareness of the social and ethical ramifications of their work?

1. 100%
2. 80-99%
3. 60-79%
4. 40-59%
5. 20-39%
6. 1-19%
7. 0%

Can you provide some specific examples where UMass Dartmouth Computer Engineering graduates have demonstrated an awareness of the social and ethical ramifications of their work?
B. Overall Performance

Q5. Overall, how do you rate the performance of UMass Dartmouth Computer Engineering graduates that you employ?

1. Excellent
2. Very Good
3. Satisfactory
4. Fair
5. Unsatisfactory
6. Too early to be judged

Please feel free to provide additional comments on the overall job performance of UMass Dartmouth Computer Engineering graduates:

Q6. How many UMass Dartmouth Computer Engineering graduates have you employed within the last 3-5 years?

[If zero skip to Section C]

A. Program Educational Objectives

The ECE Department at UMass Dartmouth has developed three Program Educational Objectives (PEOs). Your feedback on the questions below will help us assess how well our graduates meet these PEOs.

OBJECTIVE I: PROFESSIONAL PRACTICE

Three to five years after graduation, our graduates will have achieved:

Employment in the Computer Engineering field in various capacities including product design and development, field engineering, quality control, research and development, manufacturing, consulting, testing, project management, and technical marketing.

Q7. What percentage of the UMass Dartmouth Computer Engineering graduates that you have employed in the last 3-5 years have a job title that falls in one of the categories in Objective 1 above?

1. 100%
2. 80-99%
3. 60-79%
4. 40-59%
5. 20-39%
6. 1-19%
7. 0%

Please list the job titles of those who do not fall in one of the categories above:
OBJECTIVE II: PROFESSIONAL GROWTH

Three to five years after graduation, our graduates will have achieved:

Continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers.

Q8. To your knowledge, what percentage of the UMass Dartmouth Computer Engineering graduates that you employ have demonstrated continuous career improvement, evidenced by assumption of greater responsibility or leadership, promotion, participation in continuing education or graduate studies, or transition into other technical or professional careers?

1. 100%
2. 80-99%
3. 60-79%
4. 40-59%
5. 20-39%
6. 1-19%
7. 0%

Can you provide some specific examples where UMass Dartmouth Computer Engineering graduates have demonstrated continuous career improvement?

OBJECTIVE III. PROFESSIONAL CONDUCT

Three to five years after graduation, our graduates will have achieved:

Awareness of the social and ethical ramifications of their work.

Q9. To your knowledge, what percentage of the UMass Dartmouth Computer Engineering graduates that you employ have demonstrated an awareness of the social and ethical ramifications of their work?

1. 100%
2. 80-99%
3. 60-79%
4. 40-59%
5. 20-39%
6. 1-19%
7. 0%

Can you provide some specific examples where UMass Dartmouth Computer Engineering graduates have demonstrated an awareness of the social and ethical ramifications of their work?
B. Overall Performance

Q10. Overall, how do you rate the performance of UMass Dartmouth Computer Engineering graduates that you employ?

1. Excellent
2. Very Good
3. Satisfactory
4. Fair
5. Unsatisfactory
6. Too early to be judged

Please feel free to provide additional comments on the overall job performance of UMass Dartmouth Computer Engineering graduates:

C. Background Information

The information below will assist us in determining the types of companies that employ UMass Dartmouth graduates. Again, please be assured that all information is confidential and personal information will not be reported.

Your Name: ________________________________

First/Personal: ________________________________

Last/Family: ________________________________

Your company’s name: ________________________________

Your company’s address: (Optional; enter as you would a mailing address): ________________________________

Work phone number: (Optional; include your area code please): ________________________________

Your email: ________________________________

Your job title: ________________________________