University Planning & Analysis 2012 Alumni Survey Insert

Department of Engineering – Mechatronics Concentration

intro The joint Engineering - Mechatronics Concentration of North Carolina State University and the University of North Carolina at Asheville has defined specific Program Educational Objectives that graduates are expected to attain within a few years after graduation. As part of our ABET accreditation, we must demonstrate the extent to which our graduates have attained these Program Educational Objectives since graduating from NC State. We appreciate your taking the time to answer these questions.

Q1 For each of the following Program Educational Objectives (PEO), please consider your experiences and opportunities since earning your undergraduate degree in Engineering - Mechatronics Concentration, and indicate the extent to which you have attained the objectives described.

| | Not at all attained (1) | To a small extent attained (2) | To a moderate extent attained (3) | To a large extent attained (4) | To a very large extent attained (5) | Not applicable (0) |
|--|-------------------------|--------------------------------------|--|--------------------------------------|--|--------------------------|
| Apply mechanical engineering and electrical engineering knowledge and skills to problems and challenges in the areas of mechatronics engineering. (1) | • | • | • | • | • | • |
| Integrate and use systems or devices incorporating modern microelectronics, information technologies, and modern engineering tools for product design, development, and manufacturing. (2) | • | • | • | • | • | • |



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| Demonstrate professional interaction, communicate effectively with team members, and work effectively on multidisciplinary teams to achieve design and project objectives. (3) | • | Q | O | • | • | • |
|--|---|---|---|---|---|---|
| Engage in lifelong learning in their profession and practice professionalism and ethical responsibility. (4) | • | • | O | • | • | • |

Q2 Please share any feedback you have on the appropriateness of the four Program Educational Objectives above. Specifically, which, if any, would you drop and why? What, if anything, is missing?



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Q3 How often have you done each of the following activities since earning your undergraduate degree?

| | Never (0) | Seldom (1) | Sometimes (2) | Often (3) | Routinely (4) |
|---|-----------|------------|---------------|-----------|---------------|
| Applied mechanical engineering knowledge and skills (1) | • | 0 | 0 | 0 | 0 |
| Applied electrical engineering knowledge and skills (2) | • | • | • | • | • |
| Solved real world problems (3) | • | 0 | • | 0 | • |
| Designed mechatronic systems or devices (4) | • | • | 0 | 0 | • |
| Incorporated modern microelectronics, information technologies, and modern engineering tools for product design, development, and manufacturing (5) | • | • | • | O | • |
| Analyzed solutions for design and project objectives (6) | • | • | • | • | • |
| Considered the impact of engineering solutions (7) | • | • | 0 | • | • |

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| Exercised ethical and professional responsibility (8) | 0 | 0 | 0 | 0 | • | |
|---|---|---|---|---|---|--|
| Communicated with diverse audiences (9) | 0 | • | 0 | 0 | • | |
| Prepared written reports and communications (10) | • | • | • | • | O | |
| Made oral presentations (11) | • | • | • | • | • | |
| Worked on a team (12) | • | • | • | • | • | |
| Worked on a multi- disciplinary team (13) | • | • | • | • | O | |
| Mentored others (14) | • | • | • | • | O | |
| Managed others (15) | • | • | • | • | • | |
| Managed projects (16) | • | • | • | • | 0 | |
| Provided leadership (17) | • | • | • | • | • | |



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Q4 Please indicate the number of times you have done each of the following since earning your undergraduate degree in Engineering - Mechatronics Concentration.

| | Never (0) | Once (1) | Twice (2) | Three times (3) | Four or more times (4) |
|---|-----------|----------|-----------|--------------------|------------------------------|
| Attended events (e.g. networking events, product marketing fairs, career fairs) to learn about advances in my field (1) | • | • | • | • | 0 |
| Attended a conference in my field (2) | 0 | 0 | 0 | 0 | 0 |
| Published an article in a professional magazine or journal (3) | • | • | • | • | • |
| Submitted an invention disclosure or patent application (4) | • | • | • | • | • |
| Taken a short course/workshop in my field (5) | 0 | 0 | 0 | O | 0 |
| Taken a short course/workshop in a field outside my formal training (6) | • | • | • | • | • |
| Taken a semester-long course to broaden my knowledge in fields outside my formal training | • | • | • | • | • |

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| (7) | | | | | |
|---|---|---|---|---|---|
| Taken a graduate course in my field (8) | 0 | 0 | 0 | 0 | 0 |

| Q5 | How many different professional organizations have you been a member of since graduating? |
|-------------|--|
| O O O | 0 (0) 1 (1) 2 (2) 3 (3) 4 or more (4) |
| | Have you obtained a postgraduate certificate since graduating? (Note: This does not include any ranced degrees you might have obtained, e.g., Masters, Doctoral, etc.) |
| | Yes (please specify what certificate(s) you have obtained) (1) No (0) |
| Q7 | Have you obtained professional licensure? |
| О О | Yes (1) No, but plan to do so in the next three years (2) No, but might do so at some point in the future (3) No, and do not plan on doing so (4) |
| | swer If Have you obtained professional licensure? No, but plan to do so in the <u>next three irs</u> Is Selected |
| Q8 | Have you reviewed any licensure preparation materials? |
| | Yes (1) No (0) |

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Answer If insert2 Is Equal to NONE

outro1 Thank you for completing the Engineering - Mechatronics Concentration Survey! You must click on the 'submit' button in order for your responses to be saved. You will not be able to return to this survey once you submit your responses.

Answer If insert2 Is Not Equal to NONE

outro2 Thank you for completing the Engineering - Mechatronics Concentration Survey! You must click on the 'submit' button in order for your responses to be saved. You will then be taken to a brief survey specifically for alumni who graduated from the \${e://Field/prog2}.