

**I. Source**

II. National Academy of Engineering Study article published 2006.  
(<http://www.nae.edu/Publications/Bridge/ReformingEngineeringEducation/PreparingEngineeringFacultyasEducators.aspx>). Title: Reforming Engineering Education.

**III. Credibility of Source**

Information is reported from credible source as it comes from NAE, which is a group that counts with senior professional engineers in areas of business, academia and government. The article was written by two academia members at Carnegie Mellon University.

**IV. Summary of Content and Conclusions**

The article calls for the improvement of engineering faculty as they prepare the next generation of students. It notes that the main focus for universities tends to be to seek or create researchers, and calls for a shift in focus toward addressing what faculty members need to know to be more effective educators.

It outlines the need for educators to recognize the changes that happen in the students as related to: intellectual development, intellectual preparation, generational issues and cultural issues.

It expands on educators needing to understand the learning process to guide students through core concepts by assessing their prior knowledge and helping them organize their knowledge effectively by highlighting the goals behind learning key concepts.

By being effective educators, faculty will have a bigger impact on the next generation of engineers and enable them to be prepared as effective engineers and contributors to society.

**V. Relevance to the Department of ECE**

It applies to the department as it continues to expand and counts with the addition of talented researchers as new faculty members. The department needs to consider the preparedness of new faculty members in a teaching environment.

**VI. Recommendations for the Department or the IAB**

The Department should assess the level of preparedness of new faculty joining the department as it expands. It should benefit from the experience of faculty members that have been in the department and have proven to be effective educators through their achievements. A

start would be to determine what key pitfalls typically impact first time educators and pass them on as lessons learned to new faculty.

**VII. Contact Information**

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