

In Brief – Graduate Education for Engineers

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Overview: The motivation to pursue graduate education can develop from a desire to gain deeper knowledge in a specialized area. Graduate education can also satisfy a desire to branch out and explore new areas of knowledge. Whatever the motivation, graduate education can have a significant impact on the direction and the success of a career in engineering.

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A graduate degree is essential for progressing along some career paths. In areas such as research and advanced development, a master's degree or even a doctorate may be a necessary qualification for certain positions. Importantly, a graduate degree in an engineering discipline readily establishes deeper mastery of technical knowledge, and can help set an applicant apart when vying for an advanced technical position.

Some types of post-graduate education, such as business and law school, can add a new dimension to an engineer's background. The combination of an engineering and a law degree is highly valued in the application of patent and product liability law, whether in a private law firm or in a corporate law department. An MBA degree may not be a requirement for an engineer to move into management, but the business principles learned in earning it can help an engineering manager to succeed and advance.

Graduate education can serve different purposes at various points in an engineer's career. Whether it is to gain the credentials needed for a new, strengthen performance in a current job or position oneself for higher-level responsibilities, graduate education can be a very important tool for career development.

Of course, graduate education is essential for engineers who choose to remain in the academy and become faculty members. And such a choice need not limit future career options. The movement between the academy and industry or government is fairly commonplace.

Graduating engineers also have the option of utilizing their degrees as a step to a career outside of engineering. For example, a number of physicians receive undergraduate education in engineering, which is viewed as excellent preparation for the rigors of medical education.

Ultimately, The undergraduate engineering degree is an excellent platform for many forms of post-graduate education.