

Proposal for a New Software Engineering Program

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The need for the course

The software industry is one of the fastest growing industries in the world. Even companies that have been associated largely with hardware in the past are estimating that 80–90% of their engineers are involved, or will be involved by the year 2000, in software development. Accompanying this expansion there is a serious problem finding staff who are able to deal with the complexity of developing large software systems.

Parallelling the growth in the software industry is the increasing dependence of society on software. In many cases that dependence is critical, and failure of the software threatens the fabric of our society, and even the lives of citizens. Currently, very little software comes with a guarantee of any sort of fitness for its application, and software does not have a particularly good name for reliability. Society needs software to be produced to the same high standards required of any other engineering profession. Software engineers need to be able to produce verifiable, reliable software. In general, graduates in Computer Engineering, Computer Science, Information Systems and Electrical Engineering are employed to undertake software engineering work. Specifically from this University, the undergraduate courses in Computer Engineering, Computer Science, Business Information Technology, and Information Systems are the courses that are most relevant to Software Engineering. However, none of those courses are designed to give intensive treatment of Software Engineering.