

An Orphan Software Engineering Course: Supportive Ways toward a True Software Engineer

Authors : Haya Sammana

Abstract : A well-defined curricula must be adopted to meet the increasing complexity and diversity in the software applications. In reality, some IT majors such as computer science and computer engineering receive the software engineering education in a single course which is considered as a big challenge for the instructors and universities. Also, it requires students to gain the most of practical experiences that simulate the real work in software companies. Furthermore, we have noticed that there is no consensus on how, when and what to teach in that introductory course to gain the practical experiences that are required by the software companies. Because all of software engineering disciplines will not fit in just one course, so the course needs reasonable choices in selecting its topics. This arises an important question which is an essential one to ask: Is this course has the ability to formulate a true software engineer that meets the needs of industry? This question arises a big challenge in selecting the appropriate topics. So answering this question is very important for the next undergraduate students. During teaching this course in the curricula, the feedbacks from an undergraduate students and the keynotes of the annual meeting for an advisory committee from industrial side provide a probable answer for the proposed question: it is impossible to build a true software engineer who possesses all the essential elements of software engineering education such teamwork, communications skills, project management skills and contemporary industrial practice from one course and it is impossible to have a one course covering all software engineering topics. Besides the used teaching approach, the author proposes an implemented three supportive ways aiming for mitigating the expected risks and increasing the opportunity to build a true software engineer.

Keywords : software engineering course, software engineering education, software experience, supportive approach

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