

Curriculum Innovation in Engineering Education: A Model for Future Pilots

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Abstract. Turkish Air force Academy (TurAFA) is a military higher education institution graduating leaders for the Air Force through a four-year program. In this paper evolution of TurAFA's undergraduate program will be examined in a historical perspective and the restructuring process of the undergraduate engineering programs at TurAFA will be described. The restructuring process was compelled by institutional needs and guided by faculty assessment of current practice and future needs. The program is designed to fulfill the prospective needs of TurAFA cadets and thus prepare the cadets for the challenging workplace tasks peculiar to Air Force installations. English language is not only essential in determining the success in business but also it is a major determinant of military operations' success. Thus English Language Education has become a core element in TurAFA programs like many other military academies all over the globe. Observing the individual needs of the learners, focal point in the new design has been the intense language courses embedded in the engineering curriculum. The model comprises engineering subject matter enriched by a variety of social science, humanities, and other professions courses in order to endow cadets with intellectual and warrior skills needed in dealing with future challenges presented in military contexts. The new program provides students with extensive experience through case based learning environments planned by the faculty to present cadets real life situations in engineering classes. As one of the major program outcomes, cadets' intercultural competence is increased through intensive language courses, and courses in history, literature, economics, business, law and a number of various subjects chosen in accordance with institutional and individual needs.