Financial Engineering Program

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The following curricular requirements will be applicable for students entering KAIST in 2016

and thereafter.

1. Introduction

Financial engineering deals with mathematical/engineering methods required in the process of

synthesizing and operating financial instruments by dissolving and reconfiguring financial

assets in order to meet the variety of risk appetite and investment needs of various

stakeholders in the global economy.

KAIST financial engineering program (FEP for short) is a minor program for undergraduate

students, which was established in 2010 for the purpose of broadening career opportunities of

students by systematically providing fundamental knowledge on financial engineering based on

quantitative methods. Pedagogical goals of the program are :

• Profound domain knowledge on financial industry

• Mathematical/engineering theory for synthesis and analysis of financial products

• Implementation skill set for computational finance

Because of the interdisciplinary nature of financial engineering, this program runs jointly by

many participating departments including Mathematical science, Industrial & Systems

engineering, Computer science, Management science, and so on. In addition to the domain

knowledge on financial industry, KAIST financial engineering program focuses on the

convergence of mathematical understanding of finance, engineering approach to product

structuring, and IT skills.

Since this is a minor program available to undergraduate students with major declared, we

offer condensed core courses to establish the framework knowledge on financial engineering.

Students may select elective courses having synergy with (or suggesting different perspectives

from) their majors.