KLA-TENCOR PROGRAM IN SYSTEMS ENGINEERING

U-M AND KLA-TENCOR HAVE DESIGNED THIS ONLINE CERTIFICATE PROGRAM JUST FOR YOU

The University of Michigan College of Engineering—one of the world’s leading schools in optics—and KLA-Tencor have partnered to design a custom professional certificate program for KLA-Tencor engineers. By participating in regularly scheduled online U-M courses, KT students can study part-time while continuing full employment. Interdisciplinary courses combining engineering, management, and optics, are offered using advanced instructional technologies and support services to enhance the learning experience.

PROGRAM OVERVIEW

This KLA-Tencor Systems Engineering Program is driven by KT’s need for technical leaders who have depth in their own engineering discipline, breadth across all engineering disciplines, knowledge of basic management issues, and the ability to influence and direct product development at a systems level. Systems engineering is an overarching discipline, concerned with the effective design and design trade-offs, development, manufacturing, operation, maintenance, and retirement of reliable systems within cost and time constraints.

TAKE COURSES IN THE FOLLOWING AREAS

- Optics
- Mechanical, Electrical, and Manufacturing Engineering
- Software/Computer Science
- Engineering Management

SCHEDULE

WINTER 2016
- MFG 599B Designing in Quality: Design for Six Sigma
- ISD 599A Software Systems Engineering

FALL 2016
- EECS 334 Principles of Optics
- EECS 414 Introduction to MEMS
- IOE 461/MFG 461 Quality Engineering Principles and Analysis
- MECHENG 452/MFG 599 Design for Manufacturability
- MECHENG 587 Global Manufacturing

PROJECTED WINTER 2017
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KLA-TENCOR PROFESSIONAL CERTIFICATE IN SYSTEMS ENGINEERING

PROGRAM DETAILS

CERTIFICATE REQUIREMENTS
- KT students must complete the KT101 KT Systems Engineering Course, MFG 599 Design for Manufacturability, and at least one course from three of the four technical fields.
- KT students will be enrolled through U-M as NCFD (Non-candidates for Degree) and apply through the standard online application.

CERTIFICATE ADMISSION REQUIREMENTS
- Bachelor's degree in engineering, science, or a related field.
- Prerequisite courses (or equivalent) should be completed prior to enrolling in a course.
- The equivalent of two years of experience in the semiconductor industry (for degree only).

CERTIFICATE TIME LIMIT
A minimum set of courses must be completed within five years of the start date to be eligible for the certificate. Credits may be applied toward a graduate degree for five years after earning the credits.

COURSE OF STUDY
To obtain the certificate, complete the required courses and at least one course from three of the four areas, with a grade indicator of 3.0 or better.

Required Courses
- KT101 KT Systems Engineering Course
- MECHENG 452/MFG 599 Design for Manufacturability
- IOE 461/MFG 461 Quality Engineering Principles and Analysis
- MFG 599B Designing in Quality: Design for Six Sigma
- EECS 334 Principles of Optics
- EECS 414 Introduction to MEMs
- MECHENG 587 Global Manufacturing
- ISD 599A Software Systems Engineering

PROGRAM OBJECTIVES
- Broaden the perspective of engineers by teaching a top-down interdisciplinary engineering approach to the development, design, and manufacturing of complex systems, and balancing the tradeoffs required to successfully build these systems.
- Strengthen the technical competence and depth of professionals by teaching advanced skills in their engineering disciplines, and by infilling courses in engineering outside of their primary engineering areas.

INTERESTED IN PURSUING A DEGREE?
- Students who wish to pursue a graduate degree must follow the standard U-M graduate application process.
- Up to 6 NCFD credits may be applied to a graduate degree program.
- The GRE is strongly recommended, but not required.

Learn more at: isd.engin.umich.edu