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 courses online from Ann Arbor, KT students can study part-time, while continuing full employment. Interdisciplinary courses combining engineering, management and optics, are offered via high-speed Internet connection, 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 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 effective design and design trade-offs, development, manufacture, operation, maintenance, and retirement of reliable systems within cost and time constraints.

TAKE COURSES IN THE FOLLOWING AREAS

SCHEDULE

FALL 2012
- IOE 461 Quality Engineering Principles and Analysis
- ME 452 Design for Manufacturability

WINTER 2013
- EECS 334 Principles of Optics
- MFG 599 Designing in Quality: A Design for Six Sigma Course

PROJECTED FALL 2013
- EECS 334 Principles of Optics
- IOE 461 Quality Engineering Principles and Analysis
- ME 452 Design for Manufacturability

PROJECTED WINTER 2014
- EECS 334 Principles of Optics
- MFG 599 Designing in Quality: A Design for Six Sigma Course
KLA-TENCOR PROFESSIONAL CERTIFICATE IN SYSTEMS ENGINEERING

PROGRAM DETAILS

CERTIFICATE REQUIREMENTS
- KT students must complete the KT101 KT Systems Engineering Course, ME 452 Design for Manufacturability, and at least one course from three of the four technical fields.
- KT students will be enrolled through the University 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 (fall)
- ME 452 Design for Manufacturability (fall)

Engineering Management
- IOE 461 / MFG 461 Quality Engineering Principles and Analysis (fall)
- MFG 599 Design for Six Sigma (winter)

Optics
- EECS 334 Principles of Optics (fall and winter*)

Mechanical/Electrical/Manufacturing Engineering
- EECS 414 Introduction to MEMs (fall*)
- ME 587 / MFG 587 Global Manufacturing (fall*)

Computer Science
- EECS 481 Software Engineering (winter)

*Not available in fall 2012.

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: InterPro.engin.umich.edu

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