



**Master of Science in Systems Engineering (M.S.Sy.E.)  
2019-2020 Catalog**

<b>Degree Courses</b>	<b>Completed</b>	<b>Future</b>	<b>Sem./Year</b>
<b>CORE COURSES (All Required- 15 credits)</b>			
ETLS 507 Introduction to Systems Engineering			
ETLS 508 Systems Design			
ETLS 509 Verification and Validation			
ETLS 601 Program/Project/Team Management			
ETLS 789 Simulation & Visualization of Dynamic Systems			
<b>ELECTIVE CREDITS - (4 Courses-12 credits)</b>			
<b>Financial and Accounting Electives</b>			
ETLS 505 Managerial Accounting and Performance Mgmt			
<b>Management and Leadership Electives</b>			
ETLS 671 Human Aspects of Technical Management			
ETLS 660 Engineering Leadership			
<b>Modeling and Simulation Electives</b>			
ETLS 777 Finite Element Analysis			
ETLS 785 Simulation Logistics			
ETLS 810 Advanced Controls			
<b>Software Electives</b>			
SEIS 601 Foundations of Software Development			
SEIS 610 Software Engineering			
SEIS 635 Software Analysis and Design			
SEIS 640 Operating Systems Design			
<b>Medical Device Electives</b>			
ETLS 520 Design & Mfg. in the Med Device Industry			
ETLS 722 FDA Medical Device Quality Systems			
ETLS 724 Medical Device Clinical Studies			
ETLS 731 Combination Products, Drugs and Biology			
ETLS 737 Intl. Regulatory Affairs for Medical Devices			
<b>Technical Electives</b>			
ETLS 501 Production Operating Systems			
ETLS 506 Statistical Methods for Manufacturing Quality Systems			
ETLS 672 Excellence in Design			
ETLS 701 Design of Experiments			
ETLS 744 Power Systems			
<b>Engineering Project - 3 Credits (Must be pre-approved by Advisor)</b>			
ETLS 881 Engineering Project (3 credits)			