SYSC 4907 – Fall 2026/Winter 2027

Supervisor	Halim Yanikomeroglu
Co-supervisor	
Course section	SYSC 4907 R
Project ID	R1
Project title	Design, Simulation, and Analysis of LEO Satellite Communications and Networks
Project description	This project focuses on developing a simulator for low-Earth orbit (LEO) satellite networks to explore how these systems perform under dynamically changing conditions. With a growing global need for satellite constellations for ubiquitous communication systems, it is vital to understand how factors like satellite movement, signal quality, and network traffic can affect the performance of a network. This project uses MATLAB and other tools to model critical aspects of satellite communications and networking, such as routing paths, signal strength, and user access. This project aims to provide a tool that helps analyze different network configurations, ensuring reliable and efficient satellite communication in an increasingly growing communications market.
Program(s)	• (Tele)Communications • Computer Systems • Electrical • Software
Maximum number of students	4
Meeting time with supervisor (optional)	Weekly
Do you want the student to contact you before the office assign this project to them ? (Yes/No)	Yes