

# Example of SMM suggested tract

Note: specific course program to be determined in consultation with your advisor

## **AE 400-level (choose 2):**

- AE 420 Finite Element Analysis
- AE 451 Aeroelasticity

## **AE 500-level (choose 2):**

- AE 521 Fracture and Fatigue
- AE 550 Nonlinear Aeroelasticity
- AE 522 Dynamic Response of Materials
- AE 525 Advanced Composite Materials
- AE 528 Nonlinear Continuous Media

## **Math (choose 1):**

- MATH 461 EGR: Probability Theory
- MATH 488 EGR: Math Methods In Engr.

## **Other possible electives (examples):**

- CEE 470 ONL: Structural Analysis
- CEE 471 ONL: Structural Mechanics
- CEE 472 ONL: Structural Dynamics I
- ME 430 ONL: Failure of Engrg Materials
- TAM 514 ONL: Elastodynamics and Vibrations
- TAM 598 MSO: Mechanics of Random Media
- ENG 461 ONL: Technology Entrepreneurship
- ENG 560 ONL: Managing Advanced Technol I
- ENG 561 ONL: Managing Advanced Technol II

## **Breadth-AFMCP (choose 1):**

- AE 410 Computational Aerodynamics
- AE 412 Viscous flow and Heat Transfer
- AE 416 Applied Aerodynamics
- AE 419 Aircraft Flight Mechanics
- AE 433 Aerospace Propulsion
- AE 434 Rocket Propulsion
- AE 435 Electric Propulsion
- AE 510 Advanced Gas Dynamics
- AE 514 Boundary Layer Theory
- AE 538 Combustion Fundamentals

## **Breadth-ACDS (choose 1):**

- AE 402 Orbital Mechanics
- AE 403 Spacecraft Attitude Control
- AE 454 Systems Dynamics and Controls
- AE 482 Introduction to Robotics
- AE 502 Advanced Orbital Mechanics
- AE 504 Optimal Aerospace Systems
- AE 508 Optimal Space Trajectories
- AE 554 Dynamical Systems Theory
- AE 556 Robust Control
- AE 583 Advanced Robotic Planning

[Link to all online AE courses](#)