

**(591) Space Systems Engineering Matrix - URL Matrix w/ Integrated JPME  
and Refresher (updated 5/16/2023)**

Qtr	Course	Course	Course	Course	Seminar	Course
0 Su	<b>MA1995 (5-1)</b> Engineering Math I	<b>MA1996 (5-1)</b> Engineering Math II	<b>PH1121 (4-2)</b> Mechanics	<b>PH1322 (4-2)</b> Electromagnetism	<b>SS4000 (0-1)</b> Seminar	

1 F	<b>MA2097 (4-0)</b> Engineering Math III	<b>SS100 (2-2)</b> Introduction to Programming for Space Apps	<b>AE3840 (3-2)</b> Introduction to Spacecraft Structures	<b>ME2801 (3-2)</b> Control Systems	<b>SS4000 (0-1)</b> Seminar	
2 W	<b>SS3500 (4-2)</b> Orbital Mechanics & Launch Systems	<b>PH3052 (4-0)</b> Remote Sensing	<b>EO3510 (4-1)</b> S/C Communications Engineering	<b>AE3804 (3-0)</b> Thermal Control of Spacecraft	<b>SS4000 (0-1)</b> Seminar	<b>JPME - NW3230 (4-0)</b> Strategy & War
3 Sp	<b>PH2514 (4-0)</b> Space Environment	<b>MN3331(5-1)</b> Principles of Acquisition & Pgm Management	<b>AE3818 (3-2)</b> Spacecraft Attitude Determination & Control	<b>Degree/Track Elective</b>	<b>SS4000 (0-1)</b> Seminar	<b>JPME - NW3285 (4-0)</b> Theater Security Decision Making
4 Su	<b>SS3861(2-4)</b> Spacecraft Payload Design	<b>EC3230 (3-1)</b> Space Power	<b>AE3851 (3-2)</b> Spacecraft Propulsion	<b>Degree/Track Elective</b>	<b>SS4000 (0-1)</b> Seminar	
5 F	<b>AE4870 (2-4)</b> Spacecraft Design & Integration I	<b>AE0810 (0-8)</b> Thesis Research	<b>Degree/Track Elective</b>	<b>Degree/Track Elective</b>	<b>SS4000 (0-1)</b> Seminar	<b>JPME - NW3275 (4-0)</b> Joint Maritime Operations - Part 1
6 W	<b>AE4872 (2-4)</b> Spacecraft Design & Integration II	<b>SS3001 (4-1)</b> Military Applications of Nat. Space TS/SCI	<b>AE0810 (0-8)</b> Thesis Research	<b>Degree/Track Elective</b>	<b>SS4000 (0-1)</b> Seminar	<b>JPME - NW3276 (2-2)</b> Joint Maritime Operations - Part 2
7 Sp	<b>SS3051 (4-0)</b> Mil. DoD & Comm Space (S)	<b>AE0810 (0-8)</b> Thesis Research	<b>AE0810 (0-8)</b> Thesis Research	<b>Degree/Track Elective</b>		<b>Legend</b> Preparatory Courses 591 Core Track/Electives JPME

<b>SS1810 (0-1)</b> Thesis Proposal Prep
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