

**Comparison of the admittance and program requirements between the BAE graduate degrees and the CEA Engineering Science graduate degrees as administered by BSYSE.**

	<b>Engr Science</b>	<b>BAE</b>	<b>Rationale for Engr Science Policy</b>
<b>Admission</b>			
BAE's role	Review application, send recommendation to CEA (CEA will send its recommendation to Grad School)	Review application, send recommendation to Grad School	CEA administers the Engr Science Program, but relies on the department to administrate application review, advising and possibly funding
Previous degree	Engineering or Science	Engineering (Science in rare cases; 3.4 gpa and champion within BAE)	Depending on the research topic, a strong biological or chemical background may be needed
GPA	Cumulative gpa from last two years of BS program, or the cumulative gpa from MS program. Special consideration of performance in Math and Science courses.		3.0 is the Min Grad School requirement, a 3.4 for non engineering applicants will help ensure accepting students who will complete the engineering coursework successfully
MS	With Engr degree, 3.0, without Engr degree, 3.4	With Engr degree, 3.0, without Engr degree, 3.4	
PhD	With Engr degree, 3.0, without Engr degree, 3.4	With Engr degree, 3.0, without Engr degree, 3.4	
A set of key undergraduate engineering courses	Required for non- engineering student	Required for non-engineering student	Required for successful completion of graduate engineering coursework
	Nine undergraduate engineering credits (including Math 315) are required for applicants with non-engineering background. A portion of these courses (three for MS and six for PhD) are applicable towards meeting the student's degree program requirements.	Circuits, Diff Equations, Fluids/Heat Transfer, Thermodynamics, Mech of Materials	
<b>Committee Membership</b>	Minimum of 2 engineering faculty, and a minimum of 1 graduate faculty from outside of the Department.	2 BAE faculty within emphasis area, at least 1 Grad Faculty outside Dept.	
<b>Coursework</b>			
MS	Minimum of 12 credits of eng courses, Minimum of 10 credits of eng or science courses	Minimum of 21 credits from engineering courses, selected from required and elective lists for emphasis area	
Core	BSysE 512, BSysE 541 or similar course	BSysE 512, 541	
PhD	Minimum of 34 credits beyond BS. Minimum of 18 credits of eng courses beyond BS, minimum of 16 credits of engineering or science courses beyond BS	Minimum of 34 credits beyond BS, eng coursework from required and elective course lists for emphasis area	
Core	BSysE 512, BSysE 541 or similar course, Math 540 or Math 548, and Stat 512	BSysE 512, 541, Stat 512 and Math 540 or Math 548	
<b>RA Stipends</b>	As specified in BAE Graduate Manual	As specified in BAE Graduate Manual	Same for Engineering Science as for BAE
<b>Timelines toward Graduation</b>			Same for Engineering Science as for BAE
MS	Pof S due at end of first semester Thesis defense in 4 <sup>th</sup> semester	Pof S due at end of first semester Thesis defense in 4 <sup>th</sup> semester	
PhD	P of S due at end of second semester	P of S due at end of second semester	
	Prelim during last semester of coursework	Prelim during last semester of coursework	
	Defense in 8 <sup>th</sup> semester past BS degree	Defense in 8 <sup>th</sup> semester past BS degree	
<b>Examination Procedure</b>	As specified in BAE Graduate manual	As specified in BAE Graduate manual	