

**Physics *plus* ME B.S./M.S. Program Course Check List Requirements - (provisional 5/20/05)**  
**(provisional curriculum- final approval pending; check with an advisor)**  
**5-year program**

<u>Physics Courses</u>	<u>Credits</u>	<u>Prerequisites</u>	
PHYS 1310 College Physics I	4	(Conc. MATH 2200)	_____
PHYS 1320 College Physics II	4	1310	_____
PHYS 2310 College Physics III	4	1320	_____
PHYS 2320 College Physics IV	3	1320	_____
PHYS 4210 Classical Mechanics I	3	2310	_____
PHYS 4310 Quantum Mechanics I	3	4210	_____
PHYS 4410 Electricity and Magnetism I	3	4210	_____
PHYS 4510 Thermodynamics and Statistical Mechanics	3	4310	_____
PHYS 4830 Math./Comp Physics I (can be replaced by <u>BOTH</u> MATH 4230 <u>and</u> 4440)	3	4210	_____
PHYS 4840 Math./Comp. Physics	3	2310	_____
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Elected Technical Area (Mechanical Engineering)

ES 2410 Mechanics of Materials	3	PHYS1210 or 1310	_____
ES 2330 Fluid Dynamics	3	MATH 2210,PHYS 1310	_____
ME 2160 Thermofluids Lab I	2	ES2330	_____
ME 3040 Thermodynamics II	3	PHYS 4510	_____
ME 3170 Machine Design	3	ES 2410,PHYS 4210	_____
ME 3360 Fund. of Transport Phenomena	3	ES2330, ME3040	_____
ME 4020 Design of Mechan./Elec. Systems	3	ES2330,ME2160	_____
ME5472 Continuum Mechanics	4	PHYS 4830,4840	_____
ME Graduate course	3		_____
ME Graduate course	3		_____
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	30		

<u>Mathematics Courses</u>	<u>Credits</u>	<u>Prerequisites</u>	
MATH 2200 Calculus I (QB)	4		_____
MATH 2205 Calculus II	4	2200	_____
MATH 2210 Calculus III	4	2205	_____
MATH 2250 Elementary Linear Algebra	3	2200	_____
MATH 2310 Applied Differential Eqns	3	2205	_____
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<u>Misc. Technical Courses</u>	<u>Credits</u>	<u>Prerequisites</u>	
COSC 1010 or 1030	4	MATH 2200	_____
CHEM 1020 General Chemistry I (S,SB)	4		_____
ES 2210 Electronics Lab. (Replaces PHYS 3650 Optics/Electronics Lab I)	4	MATH 2205	_____
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	12		

<u>University Studies Courses</u>	<u>Credits</u>	<u>Prerequisites</u>	
Physical Activity & Health (P)	1		_____
Intellectual Community (I) and Information Literacy (L)	1		_____
Foreign Language	4		_____
Foreign Language	4		_____
Writing 1 (WA)	3		_____
Writing 2 (WB)	3		_____
Oral Communication (C)	3		_____
U.S. & Wyoming Constitutions (V)	3		_____
Non-Western (NW)	3		_____
Cultural Context (C, CH, CS, CA), U.S. Diversity (D), Global Awareness (G)	3		_____
Cultural Context (C, CH, CS, CA), U.S. Diversity (D), Global Awareness (G)	3		_____
Cultural Context (C, CH, CS, CA), U.S. Diversity (D), Global Awareness (G)	3		_____
(assumes that 9 credits of upper division are taken as part of Physics+ in elected area)			
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	37		
<b>Total</b>	<b>130</b>		