

## ME Study Abroad Curriculum for École Centrale Paris

1 <sup>st</sup> Semester		
ENGL 15/30	English	3
FYS	1st Year Seminar	1
EDSGN 100	Intro to Engineering Design	3
GA, GH, GS	General Education	3
CHEM 110	Chemical Principles 1	3
MATH 140	Calculus 1	4
Total		17

2 <sup>nd</sup> Semester		
ECON 2/4	Economics	3
CHEM 112	Chemical Principals 2	3
GA, GH, GS	General Education	3
PHYS 211	Mechanics	4
MATH 141	Calculus 2	4
Total		17

3 <sup>rd</sup> Semester		
CMPCSC 200	MATLAB	3
CAS 100	Speech Communications	3
EMCH 211	Statics	3
MATH 220	Matrices	2
MATH 231	Calculus 3	2
PHYS 212	Electricity & Magnetism	4
Total		17

4 <sup>th</sup> Semester		
EMCH 212	Dynamics	3
EMCH 213	Strength of Materials	3
GHA	Health & Physical Activity	1.5
ME 300	Thermodynamics	3
MATH 251	Differential Equations	4
PHYS 214	Wave and Quantum Physics	2
Total		16.5

5 <sup>th</sup> Semester		
EE 212	Electronic Systems	3
EMCH 315	Mech. Response of Engr. Materials	2
ME 360	Machine Components	3
ME 320	Fluid Dynamics	3
ME 345	Instrumentation & Statistics	4
ME 340	Design Methodology	3
Total		18

6 <sup>th</sup> Semester - École Centrale		
WP5200 <sup>1</sup>	Innovation Project	9
ETE	Engineering Technical Elective	3
ETE	Engineering Technical Elective	3
GTE	General Technical Elective	3
E13 One Week Module <sup>2</sup>	Project & Humanities Module	5
E13: IS2950 <sup>3</sup>	Electronics Laboratory	2
LC2000	French as a foreign language	2
ENGR 195 <sup>4</sup>	International Internship (@ Penn State)	1
ECTS Credits		27
+ Penn State credits		1

<sup>1</sup> ME440

<sup>2</sup> AHS

<sup>3</sup> ME Lab

<sup>4</sup> Students can elect to participate in a 6 week (June 15 - July 30) paid internship when classes are completed.

7 <sup>th</sup> Semester		
IE 312	Manufacturing Processes	3
GA, GH, GS	General Education	3
GHA	Health & Physical Activity	1.5
ME 370	Mechanical Vibrations	3
MATSE 259	Properties of Engr. Materials	3
ENGL 202C	Technical Writing	3
Total		16.5

8 <sup>th</sup> Semester		
ME 410 <sup>3</sup>	Heat Transfer	3
ME Lab	Lab	1
METE	ME Tech Elective	3
ME 450	Dynamic System Modeling	3
GA, GH, GS	General Education	3
GA, GH, GS	General Education	3
Total		16