Thermal Fluids Graduate Course Projections
Latest Revision 1/30/2017
Nagaraj Arakere

Course No.	Course Title	M	2014			2015			2016			2017		
			S	SS	F	S	SS	F	S	SS	F	S	SS	F
	Core Courses – Offered on EDGE													
EML 5104	Classical Thermodynamics	2	♦			♦			♦			♦		
EML 5714	Introduction to Compressible Flow (+UG)	2			♦			♦			♦			♦
EML 6154	Conduction Heat Transfer	2			♦			♦			♦			♦
EML 6155	Convective Heat Transfer	2	♦			♦			♦			♦		
EGM 6812	Fluid Mechanics	2			♦			♦			♦			♦
EGM 6813	Fluid Mechanics 2	2	♦			♦			♦			♦		
	Elective Courses													
EML 5131	Combustion	3			•							•		
EML 5224	Acoustics	4				•						•		
EML 5465	Energy Management for Mechanical	4				♦					♦			
EML 5515	Gas Turbines and Jet Engines	4			•				•					
EML 5516	Design of Thermal Systems	4						♦						♦
EML 5605	Advanced Refrigeration (+UG)	4			♦						♦			
EML 5938	Rocket Propulsion	4			•						•			
EML 6606	Advanced Air Conditioning	4						♦						♦
EML 6156	Multiphase Convective Heat Transfer	4												•
EML 6157	Radiation Heat Transfer	4						•						•
EML 6417	Solar Energy Utilization (+UG)	4									♦			
EML 6934	Special Topics: Advanced Solar Energy	4												
EML 6451	Energy Conversion	2	♦			♦			♦			♦		
EAS 6135	Statistical Mechanics of Thermofluids	4												
EAS 6138	Gas Dynamics	4	♦						♦			♦		
EGM 7845	Turbulent Fluid Flow	4						•						•
EAS 6939	Special Topics: Adv. Aerodynamics	4												
EML 6934	Special Topics: Plasma Fund.'s & Appl.'s	4												
EML 6934	Special Topics: Fuel cells	4												
EGM 5121C	Data Measurement and Analysis	3				♦					♦			
EGM 6006	Laser Based Diagnostics	4												
EGM 6855	Bio-Fluid Mech. and Bio-Heat Transfer	4							•					
BME 5580	Microfluidics and BioMEMS	3						♦				♦		
	Computational Courses													
EGM 6341	Numerical Methods of Engineering Analysis I	2	♦			♦			♦			♦		
EGM 6342	Computational Fluid Dynamics	4						♦						♦
EGM 7819	Advanced Topics in CFD	4			•						•			
	Total Courses Offered		**6**		**8**	**8**		**9**	**8**		**9**	**9**		**9**

M-Denotes number of semesters between course offering
♦-Denotes core course also offered on EDGE

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Course No.	Course Title	M	2018			2019			2020			2021		
			S	SS	F	S	SS	F	S	SS	F	S	SS	F
	Core Courses – Offered on EDGE													
EML 5104	Classical Thermodynamics	2	♦			♦			♦			♦		
EML 5714	Introduction to Compressible Flow (+UG)	2			♦			♦			♦			♦
EML 6154	Conduction Heat Transfer	2			♦			♦			♦			♦
EML 6155	Convective Heat Transfer	2	♦			♦			♦			♦		
EGM 6812	Fluid Mechanics	2			♦			♦			♦			♦
EGM 6813	Fluid Mechanics 2	2	♦			♦			♦			♦		
	Elective Courses													
EML 5131	Combustion	3			•				•					•
EEL 5934	Acoustics (ECE Course)	4				•						•		
EML 5465	Energy Management for Mechanical	4			♦						♦			
EML 5515	Gas Turbines and Jet Engines (W. Lear)	4	•						•					
EML 5516	Design of Thermal Systems	4						♦						♦
EML 5605	Advanced Refrigeration (+UG)	4			♦						♦			
EML 5938	Rocket Propulsion	4			•						•			
EML 6606	Advanced Air Conditioning	4						♦						♦
EML 6156	Multiphase Convective Heat Transfer	4						•						•
EML 6157	Radiation Heat Transfer	4						•						•
EML 6417	Solar Energy Utilization (+UG)	4			♦						♦			
EML 6934	Special Topics: Advanced Solar Energy	4												
EML 6451	Energy Conversion	2	♦			♦			♦			♦		
EAS 6135	Statistical Mechanics of Thermofluids	4												
EAS 6138	Gas Dynamics	2	♦			♦			♦			♦		
EGM 7845	Turbulent Fluid Flow	4						•						•
EAS 6939	Special Topics: Adv. Aerodynamics	4												
EML 6934	Special Topics: Plasma Fund.'s & Appl.'s	4												
EML 6934	Special Topics: Fuel cells	4												
EGM 5121C	Data Measurement and Analysis	3	♦					♦				♦		
EGM 6006	Laser Based Diagnostics	4												
EGM 6855	Bio-Fluid Mech. and Bio-Heat Transfer	4	•						•					
BME 5580	Microfluidics and BioMEMS	3			♦				♦					♦
	Computational Courses													
EGM 6341	Numerical Methods of Engineering Analysis I	2	♦			♦			♦			♦		
EGM 6342	Computational Fluid Dynamics	4						♦						♦
EGM 7819	Advanced Topics in CFD	4			•						•			
	Total Courses Offered		**9**		**10**	**7**		**10**	**10**		**8**	**8**		**11**

M-Denotes number of semesters between course offering
♦-Denotes core course also offered on EDGE