Compulsory and elective courses in DSEE and other relevant courses for UG & PG students.

The courses are distributed over Semester I (odd) and II (even)	Credits
SCHEME basket course (for UG students)	**L-T-P-C**
SEE-211: Energy, Climate Change and Sustainability [*Semester II*]	3-0-0-9
PG Core Basket (minimum 2 for M.Tech., M.S.(R), and Ph.D. students)	
SEE-601: Thermo-Fluid Engineering [*Semester I*]	3-0-0-9
SEE-602: Physics of Energy Materials [*Semester I*]	3-0-0-9
SEE-603: Electrical Power Engineering [*Semester I*]	3-0-0-9
SEE-609: Mathematical and Computational Tools for Engineering* [*Semester I*]	3-0-0-9
SEE-612: Manufacturing of energy systems [*Semester II*]	3-0-0-9
SEE-604: Thermodynamics of Energy Systems [*Semester II*]	3-0-0-9
Compulsory (for all M.Tech., M.S.(R), and Ph.D. students)	
SEE-605: An Introduction to Sustainable Energy Technologies (with Laboratory) [*Semester II*]	2-0-3-9
SEE-690: Seminar Course I [both semesters]	0-0-0-0
SEE-691: Seminar Course II [both semesters]	0-0-0-0
Compulsory (only for Ph.D. students)	
SEE-888: Introduction to profession and communication [Semester I]	1-0-0-3
Department Electives	
SEE-606: Electrochemical Energy Systems	3-0-0-9
SEE-607: Hydrogen Energy: Production, Storage and Utilization	3-0-0-9
SEE-608: Introduction to Bioenergy and Biofuels	3-0-0-9
SEE-610: Introduction to Materials Modelling and Simulations$	3-0-0-9
SEE-611: Energy Systems: Modelling and Analysis	3-0-0-9
SEE 613: Solar Photovoltaics	3-0-0-9
SEE-614: Wind Energy	3-0-0-9
SEE-615: Solar Thermal Engineering	3-0-0-9
SEE-616: Essential Electrical Engineering for Renewables Integration#	3-0-0-9
SEE-617: Introduction to sustainable energy policy	3-0-0-9
SEE-618: Energy Efficient Building Design	3-0-0-9
SEE-619: Finite Volume Methods for Engineers	3-0-0-9
SEE-620: Heat Driven Cooling Systems	3-0-0-9
SEE-621: Biomass Conversion and Biorefineries	3-0-0-9
SEE-622: Sustainable Energy- Enabling Net Zero Emissions	3-0-0-9
SEE-623: Fuel Cell Electrical Energy Systems	3-0-0-9
SEE-624: Design Strategies for Net-Zero Energy Buildings	3-0-0-9
SEE-625: Structural, Microstructural and Spectroscopic Characterization of Materials	3-0-0-9
SEE-626M: Ecological Principles and Biodiversity for Sustainability	3-0-0-9
SEE-627: Electric Vehicles	3-0-0-9
SEE-628: Policy Processes and Analytical methods: Application to Climate Policies	3-0-0-9
SEE-629M: Ecology, Equity and the Economy	3-0-0-5

Open Electives	
EE698D: Smart Grid Technology	3-0-0-9
EE630A: Simulations of Power Systems	3-0-0-9
EE660A: Basics of Power Electronic Converters	3-0-0-9

EE631A: Advanced Power System Stability	3-0-0-9
MSE673: Fundamentals and Applications of Electrochemistry	3-0-0-9
ME743: Fuel Cells	3-0-0-9
ME685A: Applied Numerical Methods*	3-0-0-9
AE603: Introduction to Scientific Computing*	3-0-0-9
CHE622A: Molecular Simulations[$]	3-0-0-9
ChE626A: Practical Introduction to Quantum Mechanical Methods for Scientists and Engineers[$]	3-0-0-9
Any other suitable elective in the Institute	3-0-0-9
[#] Designated as an elective only for the students admitted in May-July 2023 and onwards.	
[#]This is designated as a core course only for the students' of 2022 batch. However, those who have already taken SEE 603 are exempted from SEE 616 as core/compulsory.	