JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

List of SWAYAM Courses as Electives

PROFESSIONAL ELECTIVES

S.No.	Discipline	Title of Course	Duration	Link to access course
1	Civil Engineering	Experimental STRESS Analysis	12 weeks	https://onlinecourses.nptel.ac.in/noc24_me04/preview
		Environmental Impact Assessment	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ar03/preview
		Finite Element Method	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ce13/preview
		Water and wastewater treatment	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ce39/preview
		Foundation Engineering	12 Weeks	https://onlinecourses.nptel.ac.in/noc23_ce83/preview
2	EEE	Operation and Planning of Power Distribution Systems	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee41/preview
		Power Quality	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee60/preview
		Smart Grid: Basics to Advanced Technologies	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee37/preview
		Industrial Automation and Control	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee56/preview
		Smart Grid: Basics to Advanced Technologies	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee37/preview
		Analog VLSI Design	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee13/preview
		Introduction to Machine Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs51/preview
3	Mechanical Engineering	MathematicalModeling ofManufacturing Processes	12 Weeks	https://onlinecourses.nptel.ac.in/noc23_me109/preview
		Dynamics and Control of Mechanical Systems	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_me29/preview
		Computational Fluid Dynamics	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ch12/preview
		Power Plant System Engineering	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_me57/preview
		Fundamentals of Combustion	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_me34/preview
		Mechanical Behaviour of Materials (Part – I)	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_mm20/preview
4	ECE	Introduction to Machine Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs51/preview
		Introduction to Internet of Things	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs35/preview
		Computer Vision and Image Processing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee38/preview
		Cloud Computing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs17/preview
		Introduction to Embedded System Design	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs33/preview

		Biomedical Signal Processing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee49/preview
		Industrial Automation and Control	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee56/preview
		Multirate DSP		https://onlinecourses.nptel.ac.in/noc24_ee22/preview
5	CSE, CSD	Computer Vision and Image Processing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee38/preview
		Data Analysis& Decision Making	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_mg14/preview
		Cloud Computing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs17/preview
		Natural Language Processing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs39/preview
		Deep Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee04/preview
		Advanced Computer Architecture	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs06/preview
6	IT	Introduction to Internet of Things	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs35/preview
		Introduction to Industry 4.0 and Industrial Internet of Things	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs34/preview
		Privacy and Security in Online social media	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs04/preview
		Reinforcement Learning	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs52/preview
		Natural Language Processing	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs39/preview
		Deep Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee04/preview
		Machine Learning for Engineering and science applications	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs38/preview
		Computer Vision and Image Processing	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee38/preview
		Compiler Design	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs18/preview
7	AI & DS	Data Analytics with Python	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs20/preview
		Computer Vision and Image Processing	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee38/preview
		Introduction to Internet of Things	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs35/preview
		Social Networks	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs56/preview
		Android Mobile Application Development	12 Weeks	https://onlinecourses.swayam2.ac.in/nou24_ge25/preview
		Deep Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee04/preview
		Reinforcement Learning	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs52/preview
8	CSE (AI & ML)	Social Networks	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs56/preview
		Artificial Intelligence for Investments	12 weeks	https://onlinecourses.nptel.ac.in/noc24_mg06/preview
		Advanced Robotics	12 weeks	https://onlinecourses.nptel.ac.in/noc24_me24/preview
		Computer Vision and Image Processing	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee38/preview
		Reinforcement Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc23_cs100/preview

9	AI & ML	Advanced Robotics	12 weeks	https://onlinecourses.nptel.ac.in/noc24_me24/preview
		Modern Computer Vision	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee21/preview
		Social Networks	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs56/preview
		Reinforcement Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc23_cs100/preview
		Cloud Computing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs17/preview
10	CSE (AI)	Social Networks	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs56/preview
		Advanced Robotics	12 weeks	https://onlinecourses.nptel.ac.in/noc24_me24/preview
		Computer Vision and Image Processing	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee38/preview
		Introduction to Internet of Things	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs35/preview
		Reinforcement Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc23_cs100/preview
11	CSE (DS), AI & DS	Programming in JAVA	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs43/preview
		Predictive Analytics - Regression and Classification	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ec08/preview
		Computer Vision and Image Processing	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee38/preview
		Introduction to Internet of Things	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs35/preview
		Natural Language Processing	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs39/preview
		Social Networks	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs56/preview
		Deep Learning	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ee04/preview
12	CSE (IOT)	Introduction to Industry 4.0 and Industrial Internet of Things	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs34/preview
		Social Networks	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs56/preview
		Introduction to Machine Learning	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs51/preview
		An Introduction to Artificial Intelligence	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs08/preview
		Cloud Computing	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs17/preview
13	Food Technology	Cooling Technology: Why and how utilized in Food Processing and allied Industries	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ag01/preview
		Novel Technologies For Food Processing And Shelf Life Extension	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ag03/preview

Note:

1. All the above courses are offered for the students in VIII semester to meet the mandatory requirement of successfully completing one MOOC course for awarding the degree.
2. While opting the courses listed above, the institution would essentially avoid the courses offered or already studied as part of the curriculum (regular or online) as it may otherwise lead to duplication and repetition of the same course.
3. A student is permitted to opt for any Professional Elective Course offered by the parent department.
4. Student registration for the above courses shall be only through the institution, it is mandatory for the student to share necessary information with the institution.
5. The institution shall designate a faculty member as a Mentor for each course to guide the students from registration till completion of the credit course. Student pursuing MOOC course through SWAYAM shall acquire the required credits only after successful completion of the course and submitting a certificate issued by the competent authority.

OPEN ELECTIVES

S.No.	Offered by the department	Offered to the students of the departments	Title of Course	Duration	Link to access course
1	Civil Engineering	All Engg. disciplines other than Civil Engineering	Introduction to Environmental Economics	12 weeks	https://onlinecourses.nptel.ac.in/noc24_hs41/preview
2	EEE	All Engg. disciplines other than EEE/ECE	Control Engineering	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee15/preview
			Principle of Electrical Sciences	12 weeks	https://onlinecourses.swayam2.ac.in/nou24_ec02/preview
		All Engg. disciplines other than EEE	Electricity & Safety Measures	12 weeks	https://onlinecourses.swayam2.ac.in/nou24_ec01/preview
			Basic Principles of Energy Management & Energy Audit	12 weeks	https://onlinecourses.swayam2.ac.in/nou24_es05/preview
			Dynamical System and Control	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ma16/preview
			Fuzzy Sets, Logic and Systems & Applications	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee32/preview

3	Mechanical Engineering	All Engg. disciplines other than Mechanical Engineering	Entrepreneurship Essentials	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ge15/preview
4	ECE	All Engg. disciplines other than EEE/ECE	Sensors & Actuators	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee45/preview
			Principles of Signals and Systems	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee36/preview
			Digital Signal Processing and its Applications	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ee16/preview
5	CSE & Allied, IT	All Engg. disciplines other than CSE & Allied/IT	Programming in JAVA	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs43/preview
			Getting Started with Competitive Programming	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs29/preview
			Introduction to Cyber Security	12 Weeks	https://onlinecourses.swayam2.ac.in/nou24_cs04/preview
			Introduction to Industry 4.0 and Industrial Internet of Things	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs34/preview
			Introduction to Machine Learning	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs51/preview
			Data Analytics with Python	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs20/preview
			Introduction to Internet of Things	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs35/preview
			AnIntroductiontoArtificialIntelligence	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs08/preview
			Data Analytics with Python	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cs20/preview
			Privacy and Security in Online Social Media	12 weeks	https://onlinecourses.nptel.ac.in/noc24_cs04/preview
6	Food Technology	All Engg. disciplines other than Food Technology	Food Microbiology and Food Safety	15 weeks	https://onlinecourses.swayam2.ac.in/cec24_ag01/preview
7	Mathematics	All Engg. disciplines	Computational Mathematics with SageMath	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ma15/preview
			Advanced Engineering Mathematics	12 weeks	https://onlinecourses.nptel.ac.in/noc24_ma03/preview
			Financial Mathematics	12 weeks	https://onlinecourses.nptel.ac.in/noc24_me09/preview

8	Physics	All Engg. disciplines	Electronic Theory of Solids		https://onlinecourses.nptel.ac.in/noc24_ph05/preview
			Advanced NMR Techniques in Solution and Solid-State	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ph22/preview
			Applied Thermodynamics	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_me03/preview
			Atomic and Molecular Physics	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_ph04/preview
9	Chemistry	All Engg. disciplines	Medicinal Chemistry	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cy17/preview
			Nuclear and Radiochemistry	12 Weeks	https://onlinecourses.nptel.ac.in/noc24_cy19/preview

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2. While opting the courses listed above, the institution would essentially avoid the courses offered or already studied as part of the curriculum (regular or online) as it may otherwise lead to duplication and repetition of the same course.
3. A student is permitted to opt for any Open Elective Course other than open elective offered by his/her own department.
4. Student registration for the above courses shall be only through the institution, it is mandatory for the student to share necessary information with the institution.
5. The institution shall designate a faculty member as a Mentor for each course to guide the students from registration till completion of the credit course. Student pursuing MOOC course through SWAYAM shall acquire the required credits only after successful completion of the course and submitting a certificate issued by the competent authority.