

Annexure - I
INFORMATION TECHNOLOGY ENGINEERING

LIST OF ONLINE NPTEL/SWAYAM COURSES FOR EVEN SEMESTER (RC 19-20)

FOR THE ACADEMIC YEAR 2022-23 (EVEN SEMESTER)

(https://onlinecourses.nptel.ac.in/)

Start of course: 23-01-2023 End of Course: 14-04-2023

Sr. No.	Course Id	Course Name (NPTEL Swayam Course)	SME Name	Institute	Duration	Credits	Link to Join
1	noc23-cs01	Randomized Methods in Complexity	Prof. Nitin Saxena	IITK	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs01
2	noc23-cs04	Quantum Algorithms and Cryptography	Prof. Shweta Agrawal	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs04
3	noc23-cs08	Data Analytics with Python	Prof. A. Ramesh	IITR	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs08
4	noc23-cs10	Information Security - 5 - Secure Systems Engineering	Prof. Chester Robeiro	IITM	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs10
5	noc23-cs11	Machine Learning,ML	Prof. Carl Gustaf Jansson	KTH Royal Institute of Technology	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs11
6	noc23-cs12	Model Checking	Prof. Srivathsan.B	CMI	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs12
7	noc23-cs13	Privacy and Security in Online Social Media	Prof. Ponnurangam Kumaraguru	IITTH	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs13

8	noc23-cs14	AI: Constraint Satisfaction	Prof. Deepak Khemani	IITM	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs14
9	noc23-cs15	Programming, Data Structures and Algorithms Using Python	Prof. Madhavan Mukund	CMI	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs15
10	noc23-cs17	Data Science for Engineers	Prof. Rangunathan Rengasamy Prof. Shankar Narasimhan	IITM	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs17
11	noc23-cs18	Introduction to Machine Learning	Prof. Balaraman Ravindran	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs18
12	noc23-cs19	Social Networks	Prof. Sudarshan Iyengar	IIT Ropar	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs19
13	noc23-cs20	The Joy of Computing using Python	Prof. Sudarshan Iyengar	IIT Ropar	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs20
14	noc23-cs21	Python for Data Science	Prof. Rangunathan Rengasamy	IITM	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc23_cs21
15	noc23-cs23	Reinforcement Learning	Prof. Balaraman Ravindran	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs23
16	noc23-cs24	Deep Learning - IIT Ropar	Prof. Sudarshan Iyengar	IIT Ropar	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs24
17	noc23-cs25	User-centric Computing for HumanComputer Interaction	Prof. Samit Bhattacharya	IITG	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs25
18	noc23-cs28	Introduction to parallel programming with OpenMP and MPI	Prof. Yogish Sabharwal	IITD	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs28
19	noc23-cs30	Getting Started with Competitive Programming	Prof. Neeldhara Misra	IIT Gandhinagar	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs30
20	noc23-cs32	Systems and Usable Security	Prof. Neminath Hubballi	IIT Indore	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc23_cs32

21	noc23-cs34	Secure Computation: Part I	Prof. Ashish Choudhury	IIT Bangalore	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs34
22	noc23-cs36	Affective Computing	Prof. Jainendra Shukla Prof. Abhinav Dhal	IITD	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs36
23	noc23-cs44	Ethical Hacking	Prof. Indranil Sengupta	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs44
24	noc23-cs47	Blockchain and its Applications	Prof. Sandip Chakraborty Prof. Shamik Sural	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs47
25	noc23-cs52	Introduction To Industry 4.0 And Industrial Internet Of Things	Prof. Sudip Misra	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs52
26	noc23-cs56	Deep Learning	Prof. Prabir Kumar Biswas	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs56
27	noc23-cs59	Hardware Security	Prof. Debdeep Mukhopadhyay	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs59
28	noc23-cs61	GPU Architectures and Programming	Prof. Soumyajit Dey	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs61
29	noc23-cs62	Foundations of Cyber Physical Systems	Prof. Soumyajit Dey	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs62
30	noc23-cs63	Selected Topics in Algorithms	Prof. Palash Dey	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs63
31	noc23-mg22	Business Statistics	Prof. Mukesh Kumar Barua	IITR	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_mg22
32	noc23-mg29	Talent Acquisition and Management	Prof. Santosh Rangnekar	IITR	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_mg29
33	noc23-hs10	Soft Skill Development	Prof. Priyadarshi Patnaik Prof. V. N. Giri Prof. D. Suar	IITKGP	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_hs10

34	noc23-mg14	Business analytics and data mining Modeling using R	Prof. Gaurav Dixit	IITR	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_mg14
35	noc23-cs13	Privacy and Security in Online social media	Prof. Ponnurangam Kumaraguru	IITH	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs13
36	noc23-mg41	Ethics In Engineering Practice	Prof. Susmita Mukhopadhyay	IITKGP	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_mg41

Note:

1. The credits will be awarded based on scheme proposed above.
2. Students should mandatory undertake one NPTEL/SWAYAM course of only 3 credits from the above list between 5th to 7th semester against 8th-semester course i.e. IT820 Elective –NPTEL/MOOC/SWAYAM.
3. The student shall submit the NPTEL/SWAYAM certificates to Goa University through Heads of Department while applying for the degree.