

List of Courses for the MOOCs on Coursera and edX to be offered for credit transfer for session 2021-2022(Even Semester)

Name of Department	Platform	Name of Course	Duration	Mode of Assessment/ Evaluation
Computer Science & Engineering	Coursera	Course 1: Blockchain Specialization by University of Buffalo i) Blockchain Basics ii) Smart Contracts iii) Decentralized Applications	i) 4 week (19 hours) ii) 4 week (17 hours) iii) 4 week (18 hour)	Quiz/ Individual Viva/ Presentation Quiz/ Individual Viva/ Presentation
		Course 2: AWS Fundamentals Offered by AWS i) AWS Cloud Technical Essentials ii) AWS Fundamentals: Addressing Security Risk iii) AWS Fundamentals: Migrating to the Cloud iv) AWS Fundamentals: Building Serverless Applications	i) 4 Weeks (16 hours) ii) 4 Weeks (7 Hours) iii) 4 Weeks (9 Hours) iv) 4 Weeks (12 Hours)	
		Course 3: Cloud Computing Offered by Microsoft i) Introduction to Microsoft Azure Cloud Services ii) Microsoft Azure Management Tools and Security Solutions iii) Microsoft Azure Services and Lifecycles iv) Data Storage in Microsoft Azure	i) 4 Weeks (10 hours) ii) 4 Weeks (9 Hours) iii) 4 Weeks (7 Hours) iv) 5 Weeks (16 Hours)	
		Course 4: Google UX Design Professional Certificate Offered by Google i) Foundations of User Experience (UX) Design ii) Start the UX Design Process: Empathize, Define, and Ideate iii) Build Wireframes and Low-Fidelity Prototypes iv) Conduct UX Research and Test Early Concepts v) Create High-Fidelity Designs and Prototypes in Figma	i) 4 Weeks 21 Hours ii) 5 Weeks 31 Hours iii) 3 Weeks 20 Hours iv) 4 Weeks 22 Hours v) 6 Weeks 33 Hours	

		<p>Course 5: DeepLearning.AI Certificate Course Offered by DeepLearning.AI</p> <p>i) Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning ii) Convolutional Neural Networks in TensorFlow iii) Natural Language Processing in TensorFlow iv) Sequences, Time Series and Prediction</p>	<p>i) 4 Weeks (31 Hours) ii) 4 Weeks (27 Hours) iii) 4 Weeks (15 Hours) iv) 4 Weeks (14 Hours)</p>	
	edX	<p>Course 6: AWS Cloud Technical Essentials by AWS</p> <p>Course 7: AWS Cloud Practitioner Essentials</p> <p>Course 8: Professional Certificate in Cloud Application Development Foundations by IBM</p> <p>i) Introduction to Cloud Computing ii) Introduction to Cloud Development with HTML5, CSS3, and JavaScript iii) Developing Cloud Native Applications iv) Developing Cloud Applications with Node.js and React</p> <p>Course 9: Computer Vision and Image Processing Fundamentals by IBM</p>	<p>4 weeks (2-4 hours/week) 4 weeks (2-4 hours/week) 3 weeks (2-4 hours/week) 2 weeks (2-4 hours/week) 2 weeks (6-8 hours/week) 3 weeks (2-4 hours/week) 3 weeks (4-6 hours/week)</p>	Quiz/ Individual Viva/ Presentation
Electronics Engineering / Electronics Design Technology	Coursera	<p>Introduction to Electronics</p> <p>Introduction to FPGA Design for Embedded Systems</p> <p>Digital Systems: From Logic Gates to Processors</p> <p>Nanotechnology and Nanosensors, Part1</p> <p>Nanotechnology and Nanosensors, Part2</p>	<p>4 weeks (46 hrs) 4 weeks (18 hrs) 4 weeks (29 hrs) 4 weeks (12 hrs) 4 weeks (17 hrs)</p>	There would be two assessments. Type of assessments MCQ Test / Viva / Presentation / report writing
	edX	<p>Circuits and Electronics 1: Basic Circuit Analysis</p> <p>Embedded Systems Essentials with Arm: Getting Started</p>	<p>5 weeks (5-7 hours per week) 6 weeks (3-6 hours per week)</p>	

		Embedded Systems Essentials with Arm: Get Practical with Hardware	10 weeks (3–6 hours per week)	
		Semiconductor Fundamentals	6 weeks (8–9 hours per week)	
		Nanophotonic Modeling	5 weeks (8–9 hours per week)	
		Fundamentals of Current Flow	6 weeks (5–6 hours per week)	
		Fundamentals of Transistors	6 weeks (8–9 hours per week)	
		Fiber Optic Communications	5 weeks (7–9 hours per week)	
		Introduction to Quantum Transport	5 weeks (8–9 hours per week)	
Electrical Engineering	edX	Electric Cars: Technology, Delft University of Technology	4 week (4 to 5 hours per week)	There would be minimum two assessments. The mode of assessment may include Written Test, Seminar, Viva-voce, Presentation etc.
		.Electric Cars: Introduction, Delft University of Technology	4 week(4 to 5 hours per week)	
		Electric Cars: Business, Delft University of Technology	4 week(4 to 5 hours per week)	
		Solar Energy: Photovoltaic (PV) Energy Conversion, Delft University of Technology / Solar Energy: Photovoltaic (PV) Systems, Delft University of Technology / Solar Energy, Delft University of Technology	12 week (10 to 11 hours per week) / 11 week(10 to 11 hours per week) / 8 week(6 to 8 hours per week)	
	Coursera	Solar Energy Basics, The State university of New York / Photovoltaic Systems, Technical University of Denmark /Solar Energy and Electrical System Design, University at Buffalo	5 week (Appr 15 hours to complete) / 5 week(Appr 12 hours to complete) / 5 week(Appr 17 hours to complete)	
		Electric Vehicles and Mobility , École des Ponts ParisTech	6 week (Appr 20 hours to complete)	

Department of Management Technology	Coursera	Excel Skills for Business: Intermediate I	30 Hours (6 weeks)	Quizzes/Viva
		Introduction to Social Media Marketing	15 Hours (5 weeks)	
		Finance for Non-Finance Professionals	14 hours(5 weeks)	
		Marketing Management I	12 hours (4 weeks)	
Mechanical Engineering	Coursera	Wind Energy by Technical University of Denmark (DTU)	Approx. 36 hours to complete	Assignment/Quiz/Test, Individual Viva/Presentation
		MATLAB Programming for Engineers and Scientists Specialization by Vanderbilt University (i) Introduction to Programming with MATLAB (Approx. 35 hours to complete) (ii) Mastering Programming with MATLAB (Approx. 56 hours to complete) (iii) Introduction to Data, Signal, and Image Analysis with MATLAB (Approx. 23 hours to complete)	Approximately 6 months to complete Suggested pace of 5 hours/week	
		Entrepreneurship: Launching an Innovative Business Specialization by University of Maryland (i) Developing Innovative Ideas for New Companies: The First Step in Entrepreneurship (Approx. 8 hours to complete)	Approximately 5 months to complete Suggested pace of 3 hours/week	
		(ii) Innovation for Entrepreneurs: From Idea to Marketplace (Approx. 11 hours to complete)		
		(iii) New Venture Finance: Start-up Funding for Entrepreneurs (Approx. 20 hours to complete)		
		(iv) Entrepreneurship Capstone (Approx. 10 hours to complete)		
	Coursera	Blockchain Specialization by University of Buffalo	16 Weeks, 60 Hours	Viva-voce

Information Technology		Data Science Foundation's using R by Johns Hopkins University	20 Weeks, 156 Hours	
		AWS Fundamentals	16 Weeks, 43 Weeks	
		Introduction to Microsoft Azure Cloud Services	4 Weeks, 9 Hours	
		Getting Started with Azure	5 Weeks, 19 Hours	
		Natural Language Processing by DeepLearning.AI	16 Weeks, 113 Hours	
		Introduction to Containers w/ Docker, Kubernetes and OpenShift by IBM	5 Weeks, 11 Hours	
		Fundamentals of Kubernetes Deployment	2 Weeks, 8 Hours	
		Building Containerized Applications on AWS	5 Weeks, 11 Hours	
		Continuous Delivery & DevOps by University of Virginia	4 Weeks, 9 Hours	
	edX	Business Considerations for Edge Computing	7 Weeks, 14 Hours	
Civil Engineering	edX	Drinking Water Treatment	7 weeks (6–8 hours per week)	There would be two assessments. Type of assessments MCQ Test / Viva / Presentation / report writing
	Coursera	Construction Project Management	16 Hours (4 weeks)	
		Construction Scheduling	17 Hours (4 weeks)	
		Construction Cost Estimating and cost control	17 Hours (4 weeks)	
		Autodesk Certified Professional: AutoCAD for Design and Drafting Exam Prep	17 Hours (2 weeks)	
		Introduction to Engineering Mechanics	13 hours (4 weeks)	
		Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading	15 Hours (4 weeks)	
		Applications in Engineering Mechanics	11 Hours (4 weeks)	
		Renewable Energy and Green Building Entrepreneurship	18 hours (3 weeks)	
Department of Industrial Engineering	Coursera	Engineering Project Management Specialization: 3 Courses 1. Initiating and Planning	04 Week each course (Total 41 Hrs.)	1.Presentation / Test-I 2.Test-II

		<p>2. Scope, Time and Cost Management</p> <p>3. Risk, Quality, Teams and Procurement.</p>		
		<p>Supply Chain Management Specialization: 5 courses</p> <p>1. Supply Chain Logistics</p> <p>2. Supply Chain Operations</p> <p>3. Supply Chain Planning</p> <p>4. Supply Chain Sourcing</p> <p>5. Supply Chain Management Strategy</p>	04 Week each course (Total 54 Hrs.)	
		Operations Research : Models and Application	04 Week (8 Hrs.)	
Electronics and Communication Engineering	Coursera	<p>Fundamentals of Network Communication</p> <p>https://www.coursera.org/learn/fundamentals-network-communications</p>	5 Weeks 15 hrs	There would be two assessments. Type of assessments MCQ Test / Viva / Presentation / report writing
		<p>Wireless Communication for Everybody</p> <p>https://www.coursera.org/learn/wireless-communications</p>	6 Weeks 14 hrs	
		<p>Introduction to Satellite Communication</p> <p>https://www.coursera.org/learn/satellite-communications</p>	6 Weeks 33 hrs	
		<p>Fundamentals of Digital Image and Video Processing</p> <p>https://www.coursera.org/learn/digital?</p>	12 Weeks 36 hrs	
		<p>AWS (Amazon Web Services) IoT: Developing and deploying an Internet of Things</p> <p>https://www.coursera.org/learn/aws-iot-developing-and-deploying-an-internet-of-things</p>	4 weeks 7 hours	
		<p>Microwave engineering and antennas</p> <p>https://www.coursera.org/learn/microwave-antenna</p>	8 Weeks 38 Hrs	
		<p>Smart Device & Mobile Emerging Technologies</p> <p>https://www.coursera.org/learn/smart-device-mobile-emerging-technologies</p>	32 hrs 6 Weeks	

edX	<p>Circuits and Electronics 1: Basic Circuit Analysis https://www.edx.org/course/circuits-and-electronics-1-basic-circuit-analysis-2?index=product&queryID=c8c2e1fa8b1f26d56a823410c7613563&position=1</p>	7 weeks (5–7 hours per week)
	<p>Circuits and Electronics 2: Amplification, Speed, and Delay https://www.edx.org/course/circuits-and-electronics-2-amplification-speed-a-2?index=product&queryID=4512f30a30f0b4252f74ff2d2d3106ea&position=2</p>	5 weeks (7–9 hours per week)
	<p>Circuits and Electronics 3: Applications https://www.edx.org/course/circuits-and-electronics-3-applications-2?index=product&queryID=18f39581e51e06e9709e877abec7ae80&position=3</p>	7 weeks (8–10 hours per week)
	<p>Principle of Semiconductor Devices Part I: Semiconductors, PN Junctions and Bipolar Junction Transistors https://www.edx.org/course/principle-of-semiconductor-devices-part-i-semicond?index=product&queryID=13aa02a7a81df089d56be54360e75c43&position=17</p>	8 weeks (2–4 hours per week)
	<p>Principle of Semiconductor Devices Part II: Field Effect Transistors and MOSFETs https://www.edx.org/course/principle-of-semiconductor-devices-part-ii-field-e?index=product&queryID=50cf928ca4a1ecf8bf761ecdaa87778&position=1</p>	7 weeks (4–5 hours per week)