

Appendix 2: Over 600 Technical Training On-Demand (TTOD) classes available through OPT

Training Topic/Title	Training Program	Training type
TTOD: 300 (G06N 20/00) AI-Based Applications – Self Driving Cars	TTOD	Technical
TTOD: (C12N) The Human Cell Atlas: “Google Maps” to navigate the human body (1600)	TTOD	Technical
TTOD: (H01Q 13/02) Horn Antennas (2800)	TTOD	Technical
TTOD: (H01Q) 25/00 Enabling the Next Era of Satellite Communications with Advanced Electronically Scanned Array Antenna Technology (2800)	TTOD	Technical
TTOD: (H02J) 50/10 Magnetic Resonance Wireless Power Transfer (2800)	TTOD	Technical
TTOD: (H02J) 50/40 Advancing Device Interconnectivity with Wireless Power and Data (2800)	TTOD	Technical
TTOD: (H02S) 10/00 Photovoltaic Systems Including Safety Features, System Architecture, Evolution, and Future Direction (2800)	TTOD	Technical
TTOD: (H03H) 9/00 Advancements in Micro-Acoustic Resonators (2800)	TTOD	Technical
TTOD: 100 (C12N7/00) Innate Immune Response to COVID19 (1600)	TTOD	Technical
TTOD: 100 (A01G31/02) Aquaponics in a Growing Dome (3600)	TTOD	Technical
TTOD: 100 (A01H 6/4684) Maize Breeding (1600)	TTOD	Technical
TTOD: 100 (A01H 6/542) Developing soybean cultivars (1600)	TTOD	Technical
TTOD: 100 (A01H 6/542) Soybean Breeding (1600)	TTOD	Technical
TTOD: 100 (A01H 6/822 and 1/045) SNP and Pepper Breeding (1600)	TTOD	Technical
TTOD: 100 (A01K 2207/05) Antisense Oligonucleotides Mechanism of Action and Rational: How to design antisense oligonucleotides for high on-target potency and minimal off-target effect (1600)	TTOD	Technical
TTOD: 100 (A01N 25/00) Evolution and Mechanisms of Herbicide Resistance in Weeds: A Palmer Amaranth Case study (1600)	TTOD	Technical
TTOD: 100 (A01N) Herbicide Properties Tool (National Pesticide Information Center) (1600)	TTOD	Technical
TTOD: 100 (A01N) Search for Registered Pesticides like a PRO (NPRO, National Pesticide Information Center) (1600)	TTOD	Technical
TTOD: 100 (A01N25/00) Introduction: Integrated Weed Management (Ian C. Burke, Washington State University) (1600)	TTOD	Technical
TTOD: 100 (A16M 16/00) Oxygen Delivery and Devices (3700)	TTOD	Technical
TTOD: 100 (A23F 5/00) Chemical and physical considerations in the production of coffee (1700)	TTOD	Technical
TTOD: 100 (A23F 5/00) Inside Starbucks Tryer Center: A Virtual Tour (1700)	TTOD	Technical
TTOD: 100 (A23J 3/227) Driving environmental transformation through multi-disciplinary innovation (1700)	TTOD	Technical
TTOD: 100 (A24D 3/10) The Plastic Problem is Getting Worse. Could Bioplastics be the Answer? (1700)	TTOD	Technical
TTOD: 100 (A61B 17/00575) Atrial Septal Defect Closure Procedure (3700)	TTOD	Technical
TTOD: 100 (A61B 17/04) Rotator Cuff Repair (3700)	TTOD	Technical
TTOD: 100 (A61B 17/064) History of Surgical Staplers and Gastrointestinal Surgery (PART 1) (3700)	TTOD	Technical

TTOD: 100 (A61B 17/064) History of Surgical Staplers and Gastrointestinal Surgery (PART 2) (3700)	TTOD	Technical
TTOD: 100 (A61B 17/11) Hand Assisted Colectomy: Anastomosis using Surgical Staplers (3700)	TTOD	Technical
TTOD: 100 (A61B 34/30) Da Vinci robotic surgical system with laparoscopic portals, surgical graspers and trocars for minimally invasive surgery (3700)	TTOD	Technical
TTOD: 100 (A61B 34/30) Surgical Robotics and Bone Surgery by Stryker (3700)	TTOD	Technical
TTOD: 100 (A61B 5/00) Wearable Sensing and Sensor Network for Precision Medicine (3700)	TTOD	Technical
TTOD: 100 (A61B 6/032) What is Tomography? (3600)	TTOD	Technical
TTOD: 100 (A61F 2/0063) Robotic Right Inguinal Hernia Repair (3700)	TTOD	Technical
TTOD: 100 (A61F 2/24) The 11 Millionth Patent - Device for Repositioning Prosthetic Heart Valve (3700)	TTOD	Technical
TTOD: 100 (A61F 5/56) Advanced Treatments for Obstructive Sleep Apnea (TC 3700)	TTOD	Technical
TTOD: 100 (A61F 5/56) Oral appliance therapy vs CPAP in the management of OSA (3700)	TTOD	Technical
TTOD: 100 (A61F 5/56) Sleep Disorders in Older Adults - Research on Aging (3700)	TTOD	Technical
TTOD: 100 (A61F 5/56) Snoring and Sleep Apnea: What is It and How Do I Stop? (TC 3700)	TTOD	Technical
TTOD: 100 (A61F13/00) Overview of 3M's Healthcare Business Group including Negative Pressure Therapy, Vascular Access/IV Dressings, and Custom Digital Orthodontic Products (3700)	TTOD	Technical
TTOD: 100 (A61K 39/395) Understanding mechanisms of action for HER2-specific antibody therapies (1600)	TTOD	Technical
TTOD: 100 (A61K 47/50) Drug Design Today: Large Molecules or Small Molecules? (1600)	TTOD	Technical
TTOD: 100 (A61K 48/00) Prime Editing for Precision Gene Correction and Genome Engineering in Human Cells (1600)	TTOD	Technical
TTOD: 100 (A61K) Drug Formulation and Delivery (1600)	TTOD	Technical
TTOD: 100 (A61K) Engineering T Cells for Cancer Therapy (1600)	TTOD	Technical
TTOD: 100 (A61K) Stabilizing Amorphous Drugs: Polymers and Small Molecules (1600)	TTOD	Technical
TTOD: 100 (A61K31/00) Natural Products (NIH, Dr. Barry O'Keefe) (1600)	TTOD	Technical
TTOD: 100 (A61K35/17) New treatment horizon : Chimeric Antigen Receptor CAR T Cell Therapy (1600)	TTOD	Technical
TTOD: 100 (A61K38/162) COVID19 Vaccines (1600)	TTOD	Technical
TTOD: 100 (A61K45/06) Modeling and simulation - 12 (Analysis of Variance ANOVA) (2100)	TTOD	Technical
TTOD: 100 (A61M 15/00) Inhaler devices (Part I) (3700)	TTOD	Technical
TTOD: 100 (A61M 15/00) Inhaler devices (Part II) (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 16/00) - Respirator devices, Oxygen delivery devices, CPAP masks, Filters that work in respiratory masks, and Parts of a trachea tube (Part III) (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 16/00) Respirator devices, Oxygen delivery devices, CPAP masks, Filters that work in respiratory masks, and Parts of a trachea tube (Part II) (TC 3700)	TTOD	Technical

TTOD: 100 (A61M 16/00) Respirator devices, Oxygen delivery devices, CPAP masks, Filters that work in respiratory masks, and Parts of a trachea tube (Part IV) (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 16/00) Respirator devices, Oxygen delivery devices, CPAP masks, Filters that work in respiratory masks, and Parts of a trachea tube (Part V) (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 16/00) Respirator devices, Oxygen delivery devices, CPAP masks, Filters that work in respiratory masks, and Parts of a trachea tube (Part I) (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/00) Drug delivery systems (Part 1 of 5); A61M 5/00 - CPC Title - Devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/00) Drug delivery systems (Part 2 of 5); A61M 5/00 - CPC Title - Devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/00) Drug delivery systems (Part 3 of 5); A61M 5/00 - CPC Title - Devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/00) Drug delivery systems (Part 4 of 5); A61M 5/00 - CPC Title - Devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/00) Drug delivery systems (Part 5 of 5); A61M 5/00 - CPC Title - Devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/20) Autoinjectors (Part 1 of 4) (3700)	TTOD	Technical
TTOD: 100 (A61M 5/20) Autoinjectors (Part 2 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/20) Autoinjectors (Part 3 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (A61M 5/20) Autoinjectors (Part 4 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (A61N 1/3605) Neuromodulation: Diagnosis and Therapy for Brain and Spinal Cord Disorders - Exploring Ethics (3700)	TTOD	Technical
TTOD: 100 (A61P 31/14) Anti-viral treatments against Covid-19, Dr. Daniel Furkert, University of Auckland (1600)	TTOD	Technical
TTOD: 100 (A61P35/00) Modeling and simulation - 13 (Introduction to Statistical Testing) (2100)	TTOD	Technical
TTOD: 100 (B01J) Metal-organic frameworks (MOFs, Covalent organic frameworks (COFs), Zeolitic imidazolate frameworks (ZIFs), and Molecular Weaving (1600)	TTOD	Technical
TTOD: 100 (B25J/G05D1) Introduction/Overview of Robotics (3600)	TTOD	Technical
TTOD: 100 (B29C 64/10) The State of Volumetric Polymer 3D Printing Today (TC 1700)	TTOD	Technical
TTOD: 100 (B32B 7/12) Thin Film Conformability (TC 1700)	TTOD	Technical
TTOD: 100 (B33Y 10/00) A Digital Twin for Future Additive Remanufacturing Solution (TC 1700)	TTOD	Technical
TTOD: 100 (B33Y 10/00) Design of Advanced Materials to Catalyze Discovery in Additive Manufacturing	TTOD	Technical
TTOD: 100 (B41M 3/10) The Watermark Identification in Rembrandt's Etchings Project at Cornell (2600)	TTOD	Technical
TTOD: 100 (B60L 3/00) Battery Cell Arrays for Electric Vehicles (2800)	TTOD	Technical
TTOD: 100 (B60L50/50) Vehicle Bus/Grid Architectures (2800)	TTOD	Technical

TTOD: 100 (B60L53/00) Power Circuits for Vehicle Electrification (Tech Fair) (2800)	TTOD	Technical
TTOD: 100 (B60L53/63) Smart Grid Vehicular Technology Vision: Possibility and Feasibility of Smart Community from Case Studies (1 hour) (3600)	TTOD	Technical
TTOD: 100 (B60W 60/00) Introduction to Techniques for Self-Driving Cars (3600)	TTOD	Technical
TTOD: 100 (B60W) Basics of Linear Feedback and Control systems (3600)	TTOD	Technical
TTOD: 100 (B64C 39/024) Drones, Robots, and Super Sperm- the Future of Farming (3600)	TTOD	Technical
TTOD: 100 (B64C2201/00) Natural Resource Applications of Unmanned Aerial (1 hour) (3600)	TTOD	Technical
TTOD: 100 (B64D 43/00) Aircraft Systems (3600)	TTOD	Technical
TTOD: 100 (B64G 1/00) Orbital Mechanics Primer (3600)	TTOD	Technical
TTOD: 100 (B82Y 5/00) Self-assembled Polymeric Nanoparticles for Drug Targeting to Tumors (Dr. Shyh-Dar Li, University of British Columbia) (1600)	TTOD	Technical
TTOD: 100 (B82Y5/00) Polymer nanoparticles for drug delivery: The myth of the Trojan Horse (Prof Martina Stenzel, University of New South Wales) (1600)	TTOD	Technical
TTOD: 100 (C01B 33/00) Chemical Processes for Micro- and Nanofabrication - Doping Impurities – Lecture 5 (2800)	TTOD	Technical
TTOD: 100 (C01B 33/00) Chemical Processes for Micro- and Nanofabrication - Junction Diode– Lecture 7 (2800)	TTOD	Technical
TTOD: 100 (C01B 33/00) Chemical Processes for Micro- and Nanofabrication - P-N Junctions– Lecture 6 (2800)	TTOD	Technical
TTOD: 100 (C01B 33/00) Chemical Processes for Micro- and Nanofabrication - Single Crystal Silicon – Lecture 4 (2800)	TTOD	Technical
TTOD: 100 (C01B 33/155) Polymer Aerogels for Lunar Applications and Beyond (TC 1700)	TTOD	Technical
TTOD: 100 (C03B 19/02) Knitted Glass: How Does She Do It? (1700)	TTOD	Technical
TTOD: 100 (C07B) Searching SciFinder	TTOD	Technical
TTOD: 100 (C07K16/10) PETTP Virtual: Antibodies Against COVID-19: The Path to Effective Treatments and a Vaccine (1600)	TTOD	Technical
TTOD: 100 (C09J 5/00) The role of bio-inspired design in the development of novel adhesives (TC 1700)	TTOD	Technical
TTOD: 100 (C09J 7/38) On-Demand Debonding of Pressure Sensitive Adhesives via External Stimuli (TC 1700)	TTOD	Technical
TTOD: 100 (C12N 15/1065) Illumina's Library Preparation: Innovations in PCR-Free and On-Bead Tagmentation (1600)	TTOD	Technical
TTOD: 100 (C12N 15/11) Viral Immunology (1600)	TTOD	Technical
TTOD: 100 (C12N 15/87) CRISPR-Cas Genome System: From basic biology to transformative technology (1600)	TTOD	Technical
TTOD: 100 (C12N 15/87) The many applications of a diversified CRISPR toolbox (1600)	TTOD	Technical
TTOD: 100 (C12N 5/00) Stem Cells- Basics (1600)	TTOD	Technical
TTOD: 100 (C12Q) Cancer Biology (1600)	TTOD	Technical
TTOD: 100 (C25B 3/00) Electrocatalytic Conversion of COx into Valuable Carbon-Based Products (TC 1700)	TTOD	Technical
TTOD: 100 (C40B) Drug Absorption and Bioavailability (1600)	TTOD	Technical
TTOD: 100 (C40B, A61K) Drug Discovery Basics (1600)	TTOD	Technical

TTOD: 100 (CO7K) Introduction to Protein Structure; Structure Comparison and Classification(1600)	TTOD	Technical
TTOD: 100 (CPC A01H 6/7418) Apple Breeding (1600)	TTOD	Technical
TTOD: 100 (F01N3/035) Diesel Oxidation Catalysts and the Diesel Particulate Filters (3700)	TTOD	Technical
TTOD: 100 (F02B 19/1085) Electronic Fuel Injection (EFI) Controls (3700)	TTOD	Technical
TTOD: 100 (F02D 41/0235) Exhaust treatment (Part 1 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F02D 41/0235) Exhaust treatment (Part 2 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F02D 41/0235) Exhaust treatment (Part 3 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F02D 41/0235) Exhaust treatment (Part 4 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F02D 41/22) Basics of Engine Analysis (3700)	TTOD	Technical
TTOD: 100 (F02D 41/34) Injection Timing Control (Part 1 of 3) (TC 3700)	TTOD	Technical
TTOD: 100 (F02D 41/34) Injection Timing Control (Part 2 of 3) (TC 3700)	TTOD	Technical
TTOD: 100 (F02D 41/34) Injection Timing Control (Part 3 of 3) (TC 3700)	TTOD	Technical
TTOD: 100 (F02M 35/104) HCCI and Intake Manifold (Part 1 of 5) (3700)	TTOD	Technical
TTOD: 100 (F02M 35/104) HCCI and Intake Manifold (Part 2 of 5) (TC 3700)	TTOD	Technical
TTOD: 100 (F02M 35/104) HCCI and Intake Manifold (Part 5 of 5) (TC 3700)	TTOD	Technical
TTOD: 100 (F02M35/104) HCCI and Intake Manifold (Part 3 of 5) (TC 3700)	TTOD	Technical
TTOD: 100 (F02M35/104) HCCI and Intake Manifold (Part 4 of 5) (TC 3700)	TTOD	Technical
TTOD: 100 (F02P 3/01) Ignition (Part 1 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F02P 3/01) Ignition (Part 2 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F02P 3/01) Ignition (Part 3 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F02P 3/01) Ignition (Part 4 of 4) (TC 3700)	TTOD	Technical
TTOD: 100 (F04B 39/0094) Crankshaft Assembly (3700)	TTOD	Technical
TTOD: 100 (F21K 9/00+) LED Basics and Advantages (part 1 of 2) (2800)	TTOD	Technical
TTOD: 100 (F21K 9/00+) LED Basics and Advantages (part 2 of 2) (2800)	TTOD	Technical
TTOD: 100 (F21S 41/00) Vehicle Headlights (Part 1 of 2) (2800)	TTOD	Technical
TTOD: 100 (F21S 41/00) Vehicle Headlights (Part 2 of 2) (2800)	TTOD	Technical
TTOD: 100 (F21V 7/0091) Intro to Light: Snells's Law, Index of Refraction, Total Internal Reflection, Huygen's Principle, and Color (CPC symbol –Title) (2800)	TTOD	Technical
TTOD: 100 (F24F11/72) HVAC and BAS Fundamentals Part 1 (2100)	TTOD	Technical
TTOD: 100 (G01B 11/2441) Characterizing Film Thickness and Topography with Coherence Scanning Interferometry (2800)	TTOD	Technical
TTOD: 100 (G01B 9/02091) Optical coherence tomography (2800)	TTOD	Technical
TTOD: 100 (G01C 21/00) Autonomous Navigation (Part 1 of 6) (TC 3600)	TTOD	Technical
TTOD: 100 (G01C 21/00) Autonomous Navigation (Part 2 of 6) (3600)	TTOD	Technical
TTOD: 100 (G01C 21/00) Autonomous Navigation (Part 3 of 6) (TC 3600)	TTOD	Technical
TTOD: 100 (G01C 21/00) Autonomous Navigation (Part 4 of 6) (TC 3600)	TTOD	Technical
TTOD: 100 (G01C 21/00) Autonomous Navigation (Part 5 of 6) (TC 3600)	TTOD	Technical
TTOD: 100 (G01C 21/00) Autonomous Navigation (Part 6 of 6) (TC 3600)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 10 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 2 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 3 of 10 (2800)	TTOD	Technical

TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 4 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 5 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 6 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 7 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 8 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series - Part 9 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01J 1/02) Photometry & Spectroscopy 10 Part Series Part 1 of 10 (2800)	TTOD	Technical
TTOD: 100 (G01L 23/22) Two Stroke Engine and Knock Detection And Misfire (Part 1 of 2) (TC 3700)	TTOD	Technical
TTOD: 100 (G01L 23/22) Two Stroke Engine and Knock Detection And Misfire (Part 2 of 2) (TC 3700)	TTOD	Technical
TTOD: 100 (G01M 17/00) Advancements in Electric Energy Harvesting for Tire Mount System (2800)	TTOD	Technical
TTOD: 100 (G01N 21/6458) Microscopy: Super-Resolution: Overview and Stimulated Emission Depletion (STED) (2800)	TTOD	Technical
TTOD: 100 (G01N 27/90) Eddy Current Inspection (2800)	TTOD	Technical
TTOD: 100 (G01N 29/14) Acoustic Emission Inspection (2800)	TTOD	Technical
TTOD: 100 (G01N21/648) Photonic Biosensors (2800)	TTOD	Technical
TTOD: 100 (G01R 33/24) Introduction to Magnetic Resonance Imaging (MRI) and Nuclear Magnetic Resonance (NMR) (2800)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems - Lecture 1 - Introduction to Radar Systems (Part 2) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems - Lecture 1 - Introduction to Radar Systems (Part 3) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems - Lecture 1 - Radar Equation (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 10 – Transmitters and Receivers (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 10 – Transmitters and Receivers (Part 2) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 2 - Radar Equation (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 2 - Radar Equation (Part 2) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 2 - Radar Equation (Part 3) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 3 – Propagation Effects (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 3 – Propagation Effects (Part 2) (3600)	TTOD	Technical

TTOD: 100 (G01S 13/00) Radar Systems – Lecture 4 - Target Radar Cross Section (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 4 - Target Radar Cross Section (Part 2) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 4 – Target Radar Cross Section (Part 3) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 5 - Detection of Signals in Noise and Pulse Compression (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 7 – Clutter and Chaff (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 7 – Clutter and Chaff (Part 2) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 8 – Signal Processing – MTI and Pulse Doppler Techniques (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 8 – Signal Processing – MTI and Pulse Doppler Techniques (Part 2) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 8 – Signal Processing – MTI and Pulse Doppler Techniques (Part 3) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 9 – Tracking and Parameter Estimation (Part 1) (3600)	TTOD	Technical
TTOD: 100 (G01S 13/00) Radar Systems – Lecture 9 – Tracking and Parameter Estimation (Part 2) (3600)	TTOD	Technical
TTOD: 100 (G01S 15/00) Ultrasonic Inspection (3600)	TTOD	Technical
TTOD: 100 (G01T 1/16) Physics of Nuclear Medicine Instrumentation (2800)	TTOD	Technical
TTOD: 100 (G01T 1/2985) Positron Emission Tomography (2800)	TTOD	Technical
TTOD: 100 (G01V 1/30) Modeling and simulation – 2 (Introduction to Well Modeling) (2100)	TTOD	Technical
TTOD: 100 (G01V 1/30) Modeling and simulation - 3 (Reservoir Geostatistics modeling basics) (2100)	TTOD	Technical
TTOD: 100 (G02B 6/0011) Optical Waveguide Theory, Part I- Symmetrical waveguide (2800)	TTOD	Technical
TTOD: 100 (G02B 6/0011) Optical Waveguide Theory, Part II - Asymmetrical waveguide (2800)	TTOD	Technical
TTOD: 100 (G02B 6/0011) Waveguides for Augmented Reality Displays (2800)	TTOD	Technical
TTOD: 100 (G02F 1/0081) Fiber Optics: Electro magnetic Analysis of Waveguides (2800)	TTOD	Technical
TTOD: 100 (G02F1/13) Liquid Crystal Structure and Phases including ordered phases nematic, smectic A, smectic C; and orientation (2800)	TTOD	Technical
TTOD: 100 (G03F 7/00) - Photolithography works Part 4/6 – Imaging Process (1700)	TTOD	Technical
TTOD: 100 (G03F 7/00) Photolithography works Part 1/6 – Photolithography Introduction (1700)	TTOD	Technical
TTOD: 100 (G03F 7/00) Photolithography works Part 2/6 – Photolithography Basics (1700)	TTOD	Technical
TTOD: 100 (G03F 7/00) Photolithography works Part 3/6 – Photoresist (1700)	TTOD	Technical
TTOD: 100 (G03F 7/00) Photolithography works Part 5/6 – Metrics for Lithography (1700)	TTOD	Technical

TTOD: 100 (G03F 7/00) Photolithography works Part 6/6 – Resolution Enhancement (1700)	TTOD	Technical
TTOD: 100 (G05B19/02) How to Use Temperature Controller PID Controller with SSR Temperature ON OFF Control (2100)	TTOD	Technical
TTOD: 100 (G05B19/02) Introduction to Feedback Control (2100)	TTOD	Technical
TTOD: 100 (G05B19/02) PID Interpretable PID Parameter Tuning for Control Engineering (2100)	TTOD	Technical
TTOD: 100 (G05B19/02) Self-Driving Cars: Control (2100)	TTOD	Technical
TTOD: 100 (G05D 1/00) Introduction to Vehicle Platooning (3600)	TTOD	Technical
TTOD: 100 (G05D1/00) Self-Driving Cars (2018) (1 hour) (3600)	TTOD	Technical
TTOD: 100 (G06F 1/163) The Glass Class - July - Lecture 1 & 2 - Introduction & Wearable Computers (2100)	TTOD	Technical
TTOD: 100 (G06F 11/0709) F10: A Fault-Tolerant Engineered Network (2100)	TTOD	Technical
TTOD: 100 (G06F 11/079) 5 Essential Techniques for Building Fault-tolerant Systems (2100)	TTOD	Technical
TTOD: 100 (G06F 12/0815) MIT - Cache Coherence (2100)	TTOD	Technical
TTOD: 100 (G06F 13/20) Intra-system Connection (E.G., Bus and Bus Transaction Processing) (2100)	TTOD	Technical
TTOD: 100 (G06F 16 /24554) Data Management & Table Partitioning and Multi-tenancy (2100)	TTOD	Technical
TTOD: 100 (G06F 16/11) Snowflake Databases and Data Warehouse (2100)	TTOD	Technical
TTOD: 100 (G06F 16/137) Hashing and Database Systems (2100)	TTOD	Technical
TTOD: 100 (G06F 16/144) Database Tuning (2100)	TTOD	Technical
TTOD: 100 (G06F 16/144) SQL Basics (2100)	TTOD	Technical
TTOD: 100 (G06F 16/17) File System Implementation (2100)	TTOD	Technical
TTOD: 100 (G06F 16/17) Storage and Storage Hierarchy in Database Systems (2100)	TTOD	Technical
TTOD: 100 (G06F 16/185) Blockchain 101 (2100)	TTOD	Technical
TTOD: 100 (G06F 16/185) Blockchain Explained (2100)	TTOD	Technical
TTOD: 100 (G06F 16/185) Blockchain Tutorial For Beginners (2100)	TTOD	Technical
TTOD: 100 (G06F 16/20) What is Database and SQL (2100)	TTOD	Technical
TTOD: 100 (G06F 16/2315) Multi-Version Concurrency Control (MVCC) (2100)	TTOD	Technical
TTOD: 100 (G06F 16/2365) AWS Quantum Ledger Database (2100)	TTOD	Technical
TTOD: 100 (G06F 16/243) Neural Database and Natural Language Generation meets Databases (2100)	TTOD	Technical
TTOD: 100 (G06F 16/24535) Subquery in SQL (2100)	TTOD	Technical
TTOD: 100 (G06F 16/2477) Introduction to Temporal Databases (2100)	TTOD	Technical
TTOD: 100 (G06F 16/27) Block chain explained (2100)	TTOD	Technical
TTOD: 100 (G06F 16/283) Dimensional Modeling (2100)	TTOD	Technical
TTOD: 100 (G06F 16/30) Supervised and Unsupervised Learning for use in Database Systems (2100)	TTOD	Technical
TTOD: 100 (G06F 16/30) Unstructured data and Differences among Machine Learning, Deep Learning and Artificial Intelligence (2100)	TTOD	Technical
TTOD: 100 (G06F 16/33) Unstructured Data, Natural Language Processing (NLP) and Healthcare (2100)	TTOD	Technical
TTOD: 100 (G06F 17/14) Introduction to Fourier analysis (2600)	TTOD	Technical

TTOD: 100 (G06F 19/00) Emerging Challenges and Opportunities for AI in Biotech and Healthcare (1600)	TTOD	Technical
TTOD: 100 (G06F 19/00) Overview of AI technology in biotech_drug development (1600)	TTOD	Technical
TTOD: 100 (G06F 3/041) Introduction to data driving technology on Display (2600)	TTOD	Technical
TTOD: 100 (G06F 3/1256) Editing & Printing Landscape Images with Adobe Lightroom 5 (2600)	TTOD	Technical
TTOD: 100 (G06F 3/16) Simulation of Room Acoustics (2600)	TTOD	Technical
TTOD: 100 (G06F 30/13) Modeling and simulation - 6 (Building Information Modeling - BIM) (2100)	TTOD	Technical
TTOD: 100 (G06F 30/20) Modeling and simulation - 1 (Modeling and simulation 101) (2100)	TTOD	Technical
TTOD: 100 (G06F 40/30) NLP with Deep Learning: Lecture 1 – Introduction and Word Vectors (2600)	TTOD	Technical
TTOD: 100 (G06F 8/00) General Overview of Web Development utilizing Data Exchange Technology (AJAX/JSON), Markup Editing Tools and Frameworks (2100)	TTOD	Technical
TTOD: 100 (G06F 8/41) Compiler Overview (2100)	TTOD	Technical
TTOD: 100 (G06F 9/00) Introduction to Computer Architecture – L4 ISA Tradeoffs (continued) and MIPS ISA (Carnegie Mellon University) (2100)	TTOD	Technical
TTOD: 100 (G06F 9/455) Virtualization and Cloud Computing (2100)	TTOD	Technical
TTOD: 100 (G06F 9/46) Introduction to Processes and Threads (2100)	TTOD	Technical
TTOD: 100 (G06F11/36) Software Testing Tutorial for Beginners (2100)	TTOD	Technical
TTOD: 100 (G06F16/176) Introduction to Database Security (2100)	TTOD	Technical
TTOD: 100 (G06F3/041) Fundamentals of Touch Technology (2600)	TTOD	Technical
TTOD: 100 (G06F3/041) Introduction to Touch Panel technology (2600)	TTOD	Technical
TTOD: 100 (G06F3/0488) Multimodal Interfaces: Capture, Tracking, and Recognition (2100)	TTOD	Technical
TTOD: 100 (G06F8/00) Securing the Software Development Lifecycle with Machine Learning (2100)	TTOD	Technical
TTOD: 100 (G06F8/00) Smart Contracts Secure Software Development Lifecycle (2100)	TTOD	Technical
TTOD: 100 (G06F8/30) Assembly Language and Computer Architecture (2100)	TTOD	Technical
TTOD: 100 (G06F8/30) Introduction to GPU Programming with CUDA and Thrust (2100)	TTOD	Technical
TTOD: 100 (G06F8/41) Understanding Compiler Optimization (2100)	TTOD	Technical
TTOD: 100 (G06F8/60) Vehicle Programming (2100)	TTOD	Technical
TTOD: 100 (G06F8/71) Software Engineering - Version Control and Introduction to Git (2100)	TTOD	Technical
TTOD: 100 (G06F9/45558) Best Practices for Managing Compute Engine VM Instances (2100)	TTOD	Technical
TTOD: 100 (G06F9/45558) Introduction to Virtual Machines (2100)	TTOD	Technical
TTOD: 100 (G06F9/45558) Live Migration of Virtual Machines (2100)	TTOD	Technical
TTOD: 100 (G06K 15/12) Birth of the Laser Printer (2600)	TTOD	Technical
TTOD: 100 (G06K 15/1223) Preparing Your Photos For Print with Prefect Resize (2600)	TTOD	Technical
TTOD: 100 (G06K 15/1872) Introduction to Image Enhancement (2600)	TTOD	Technical

TTOD: 100 (G06K 9/6256) A friendly introduction to Convolutional Neural Networks and Image Recognition (2600)	TTOD	Technical
TTOD: 100 (G06N 20/00) [1 OF 4]: What is Artificial Intelligence? Artificial Intelligence in 10 Minutes What is AI? Simplilearn - YouTube (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) [2 OF 4]: Machine Learning Basics What Is Machine Learning? Introduction To Machine Learning Simplilearn - YouTube (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) [3 OF 4]: Deep Learning In 5 Minutes What Is Deep Learning? Deep Learning Explained Simply Simplilearn - YouTube (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) [4 OF 4]: Neural Network In 5 Minutes What Is A Neural Network? How Neural Networks Work Simplilearn - YouTube (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) Computer Scientist Explains Machine Learning in 5 Levels of Difficulty (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) Data Science and Machine Learning for Non Programmers Data Science for Beginners (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) Grand Challenges in Artificial Intelligence (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) IC Design at the Physical Level using Machine Learning – NC State (2800)	TTOD	Technical
TTOD: 100 (G06N 20/00) Improving Conversational AI (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) Introduction To Machine Learning What is Machine Learning? (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) Machine Learning Tutorial (2100)	TTOD	Technical
TTOD: 100 (G06N 20/00) Where AI Is Today and Where It's Going (15 minutes) (3600)	TTOD	Technical
TTOD: 100 (G06N 27/00) Basics of Enzymatic Biosensors (1700)	TTOD	Technical
TTOD: 100 (G06N 27/00) Electrochemical Biosensors and Demonstration (1700)	TTOD	Technical
TTOD: 100 (G06N 3/02) A friendly introduction to Convolutional Neural Networks and Image Recognition (2100)	TTOD	Technical
TTOD: 100 (G06N 3/02) A friendly introduction to Deep Learning and Neural Networks (2100)	TTOD	Technical
TTOD: 100 (G06N 3/02) Neural Network Architectures (2100)	TTOD	Technical
TTOD: 100 (G06N 3/02) Neural Networks (2100)	TTOD	Technical
TTOD: 100 (G06N 3/04) – Deep Learning Basics (2100)	TTOD	Technical
TTOD: 100 (G06N 3/04) Introduction to Machine Learning: The Artificial Neural Network (ANN) (2100)	TTOD	Technical
TTOD: 100 (G06N 3/04) Neural Network Basics (2100)	TTOD	Technical
TTOD: 100 (G06N 3/04) Neural Network Tutorial For Beginners (2100)	TTOD	Technical
TTOD: 100 (G06N 3/08) AI Foundations Course: Supervised, Unsupervised & Reinforcement Learning (TC 2100)	TTOD	Technical
TTOD: 100 (G06N 3/084) Back-propagation in Neural Networks (2100)	TTOD	Technical
TTOD: 100 (G06N 5/02) Knowledge Based Systems: Logic and Deduction (2100)	TTOD	Technical
TTOD: 100 (G06N 7/005) Bayesian Networks (2100)	TTOD	Technical
TTOD: 100 (G06N 7/005) Hidden Markov Models (2100)	TTOD	Technical
TTOD: 100 (G06N 7/005) Probabilistic Machine Learning and AI (2100)	TTOD	Technical
TTOD: 100 (G06N) - Introduction to Nanobiosensors - Biomolecules, Density, Diffusion (1700)	TTOD	Technical
TTOD: 100 (G06N) - Introduction to Nanobiosensors - Types of Biosensors, Geometry of Biosensing (1700)	TTOD	Technical

TTOD: 100 (G06N) - Introduction to Nanobiosensors - What are Nanobiosensors, Anyway? (1700)	TTOD	Technical
TTOD: 100 (G06N20/00) Introduction to reinforcement learning (2100)	TTOD	Technical
TTOD: 100 (G06Q 10/04) Optimization for Machine Learning I (1 hour) (3600)	TTOD	Technical
TTOD: 100 (G06Q 10/06) Java Development in the Cloud (2100)	TTOD	Technical
TTOD: 100 (G06Q 20/00) Blockchain Explained (2400)	TTOD	Technical
TTOD: 100 (G06Q 20/06) Bitcoin, Blockchain and the Crypto Revolution (1 hour and 30 minutes) (3600)	TTOD	Technical
TTOD: 100 (G06Q 30/02) Modeling and simulation - 14 (Introduction to exploratory data analysis) (2100)	TTOD	Technical
TTOD: 100 (G06Q 30/0202) Modeling Complex Social Networks (1.15 hours) (3600)	TTOD	Technical
TTOD: 100 (G06Q 30/0207) The New Frontier of Data-Driven Price Optimization (1 hour) (3600)	TTOD	Technical
TTOD: 100 (G06Q 30/0601) Future of E-Commerce: How to Improve the Online Shopping Experience Using Machine Learning (3600)	TTOD	Technical
TTOD: 100 (G06Q 30/0605) Applications of Machine Learning in the Supply Chain (1.15 hour) (3600)	TTOD	Technical
TTOD: 100 (G06Q 30/0639) Buy Online Pickup In-Store eCommerce Webina (3600)	TTOD	Technical
TTOD: 100 (G06Q 50/01) Network Communities (1.15 hours) (3600)	TTOD	Technical
TTOD: 100 (G06Q30/0207) Understand the challenges and the opportunities facing Real Time Bidding (RTB) & Programmatic (3600)	TTOD	Technical
TTOD: 100 (G06T 1/20) Introduction to 3D Computer Graphics (2600)	TTOD	Technical
TTOD: 100 (G06T 13/00) Introduction to 3D Display Technology (1 hour) (2600)	TTOD	Technical
TTOD: 100 (G06T 15/30) Computer Graphics 2D Rendering (2600)	TTOD	Technical
TTOD: 100 (G06T 15/30) Rotations About an Arbitrary Axis (2600)	TTOD	Technical
TTOD: 100 (G06T 17/10) How to 3D Print - Basic Software and Programs Made Easy! - Part 3 (2100)	TTOD	Technical
TTOD: 100 (G06T 17/30) Introduction to Computer Graphics (2600)	TTOD	Technical
TTOD: 100 (G06T 19/00) Branches in Computer Graphics (2600)	TTOD	Technical
TTOD: 100 (G06T 19/006) Modeling and simulation - 7 (Augmented Reality and Virtual Reality) (2100)	TTOD	Technical
TTOD: 100 (G06T 19/006)The Camera Transform (2600)	TTOD	Technical
TTOD: 100 (G06T 19/20) Moving Objects in Space (2600)	TTOD	Technical
TTOD: 100 (G06T 7/00) An introduction to image processing and analysis (C H04N/1/40068) (2600)	TTOD	Technical
TTOD: 100 (G06T 7/11) Object Detection (1 of 2) (2400)	TTOD	Technical
TTOD: 100 (G06T 7/12) - Edge and Corner Detection (2600)	TTOD	Technical
TTOD: 100 (G06T2207/20081) Tutorial on Convolutional Neural Networks(CNNs) for image recognition (2600)	TTOD	Technical
TTOD: 100 (G06T7/579) SLAM – Introduction to Robot Mapping (1 hour) (3600)	TTOD	Technical
TTOD: 100 (G10L 15/00) Automatic Speech Recognition - An Overview (2600)	TTOD	Technical
TTOD: 100 (G10L 15/16) Natural Language Processing at UT Austin (2600)	TTOD	Technical
TTOD: 100 (G10L 15/183) NLP with Deep Learning: Lecture 6 – Language Models and RNNs (2600)	TTOD	Technical
TTOD: 100 (G16B) A new concept for highly sensitive multiplexed plasma (protein) profiling (1600)	TTOD	Technical
TTOD: 100 (G16C 20/70) Machine Learning in Materials Science and Chemistry	TTOD	Technical

TTOD: 100 (GO6F 11/07) High Availability vs. Disaster Recovery (2100)	TTOD	Technical
TTOD: 100 (GO6F 16/302) NoSQL Databases (2100)	TTOD	Technical
TTOD: 100 (H01H 50/00) Understanding EMC Basics 2: Waveforms, Spectra, Coupling, Overview of Emissions (2600)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - CMOS Process Flow– Lecture 9 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Diffusion, parts 1 of 3 – Lectures 13-15 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Diffusion, parts 2 of 3 – Lectures 13-15 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Diffusion, parts 3 of 3 – Lectures 13-15 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Evaporation, part 1 of 2– Lectures 20-21 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Evaporation, part 2 of 2– Lectures 20-21 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Ion Implantation, part 1 of 3– Lectures 16-18 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Ion Implantation, part 2 of 3– Lectures 16-18 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Ion Implantation, part 3 of 3– Lectures 16-18 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Sputtering, part 1 of 2 - Lectures 22-23 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Sputtering, part 2 of 2 - Lectures 22-23 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Thermal Oxidation, parts 1 of 3 – Lectures 10-12 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Thermal Oxidation, parts 2 of 3 – Lectures 10-12 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Thermal Oxidation, parts 3 of 3 – Lectures 10-12 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/00) Chemical Processes for Micro- and Nanofabrication - Rapid Thermal Processing (RTP) – Lecture 19 (2800)	TTOD	Technical
TTOD: 100 (H01L 21/02) Tokyo Electron Limited: Advanced etching profile control by utilizing deposition techniques for fine pitch patterning and State-of-the-art etching process for High Aspect Ratio (HAR) etch (TC 1700)	TTOD	Technical
TTOD: 100 (H01L 27/00) Flash Memory (2800)	TTOD	Technical
TTOD: 100 (H01L 27/00) HC31-K2: What Will the Next Node Offer Us? (2800)	TTOD	Technical
TTOD: 100 (H01L 29/00) GLOBALFOUNDRIES Webinar: How to Build Ultra Low Power Chips with New 22nm FD-SOI Technology Training duty (2800)	TTOD	Technical
TTOD: 100 (H01L 29/00) Chemical Processes for Micro- and Nanofabrication - Transistors– Lecture 8 (2800)	TTOD	Technical
TTOD: 100 (H01L 29/00) GaN Power devices - the HEMT (2800)	TTOD	Technical
TTOD: 100 (H01L 29/00) Transistors - Field Effect and Bipolar Transistors: MOSFETS and BJTs (2800)	TTOD	Technical

TTOD: 100 (H01L 29/7786) Wolfspeed and RF Compound Semiconductor Technology-Cree/Wolfspeed (2800)	TTOD	Technical
TTOD: 100 (H01L 31/04) Introduction to Photovoltaics (1700)	TTOD	Technical
TTOD: 100 (H01L 31/04) Modeling and Simulation of Photovoltaic Devices and Systems (1700)	TTOD	Technical
TTOD: 100 (H01L 31/04) Physics of Crystalline Solar Cells (1700)	TTOD	Technical
TTOD: 100 (H01L 31/046) What is Different about Thin-Film Solar Cells? (1700)	TTOD	Technical
TTOD: 100 (H01L 39/00) Ferromagnetic Josephson Junctions (2800)	TTOD	Technical
TTOD: 100 (H01L 51/00) How Organic Light Emitting Diodes Revolutionized Displays: Stephen Forrest (2800)	TTOD	Technical
TTOD: 100 (H01L 51/00) Introduction to organic electronics (2800)	TTOD	Technical
TTOD: 100 (H01L 51/00) Making Small Things Big in the World of Organic Electronics (2800)	TTOD	Technical
TTOD: 100 (H01L 51/00) The Future of Organic Electronics OLED Displays (2800)	TTOD	Technical
TTOD: 100 (H01L 51/42) Metal Halide Perovskite Tandem Solar Cells (TC 1700)	TTOD	Technical
TTOD: 100 (H01L 51/44) Organic Photovoltaics (1700)	TTOD	Technical
TTOD: 100 (H01L 51/50) Design Considerations for OLEDs (1700)	TTOD	Technical
TTOD: 100 (H01L 51/50) Introduction to Organic Light-emitting Devices (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 1 - L1.1: Basic Concepts - The Battery Potential (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries - Unit 1 - L1.2: Basic Concepts - Charge Figures of Merit in a Battery (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 1 - L1.3: Basic Concepts - Energy and Power in a Battery (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 1 - L1.4: Basic Concepts - Polarization Losses (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 2 – L2.1: Thermodynamics of Battery Materials: Electrochemical Equilibrium (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 2 – L2.2: Thermodynamics of Battery Materials: The Electrochemical Potential (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 2 – L2.3: Thermodynamics of Battery Materials: Applications to Different Material Systems (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 2 – L2.4: Thermodynamics of Battery Materials: Thermal Effects in the Equilibrium Potential (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 2 – L2.5: Thermodynamics of Battery Materials: Summary (1700)	TTOD	Technical
TTOD: 100 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 2 – L2.6: Thermodynamics of Battery Materials: The NaNiCl System (1700)	TTOD	Technical
TTOD: 100 (H01M 10/04) Making Batteries Safe with Water (1700)	TTOD	Technical
TTOD: 100 (H01M 10/0562) Solid-State Batteries: Materials and Scale-Up (1700)	TTOD	Technical
TTOD: 100 (H01M 4/13) Batteries: Now and Future (1700)	TTOD	Technical

TTOD: 100 (H01Q 1/00) Radar Systems – Lecture 6 – Radar Antennas (Part 1) (3600)	TTOD	Technical
TTOD: 100 (H01Q 1/00) Radar Systems – Lecture 6 – Radar Antennas (Part 2) (3600)	TTOD	Technical
TTOD: 100 (H01Q 1/00) Radar Systems – Lecture 6 – Radar Antennas (Part 3) (3600)	TTOD	Technical
TTOD: 100 (H01Q 1/36) Helical Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q 13/10) Slot Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q 15/0013) Frequency Selective Surfaces (FSS) (2800)	TTOD	Technical
TTOD: 100 (H01Q 15/16) Reflector Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q 15/16) Reflector/Dish Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q 19/30) Yagi-Uda Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q 3/26) Phased Arrays (2800)	TTOD	Technical
TTOD: 100 (H01Q 3/26) The history, functions and structure of Phased Arrays (2800)	TTOD	Technical
TTOD: 100 (H01Q 7/00) Loop Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q 9/0407) Microstrip Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q 9/065) Basic Antenna Introduction (2800)	TTOD	Technical
TTOD: 100 (H01Q 9/16) Dipole Antennas (2800)	TTOD	Technical
TTOD: 100 (H01Q19/067) Holographic Beamforming-mmW5G and the Role of Holographic Beamforming Techniques (2800)	TTOD	Technical
TTOD: 100 (H02G 1/00) Wire types and connections (2800)	TTOD	Technical
TTOD: 100 (H02J 2300/22) Converter Connection and control Between Wind, Solar and Grid (2800)	TTOD	Technical
TTOD: 100 (H02J 2300/24) An introduction to Solar Converters/Inverters (2800)	TTOD	Technical
TTOD: 100 (H02J 2310/40) Vehicle Electronic Control System (2800)	TTOD	Technical
TTOD: 100 (H02J 3/32) Integration of Solar Inverters and Energy Storage at home/local level (2800)	TTOD	Technical
TTOD: 100 (H02J 50/00) Wireless Power Transfer: Emerging Technologies for High Frequency High Power Wireless Power Transfer in Commercial Electronics (2800)	TTOD	Technical
TTOD: 100 (H02J 50/10) Wireless Power Transfer and Power Transfer Efficiency (2800)	TTOD	Technical
TTOD: 100 (H02J 50/30) Wireless Power and Methods of Transmission (2800)	TTOD	Technical
TTOD: 100 (H03M 13/2936) - Introduction to Reed Solomon Coding (2100)	TTOD	Technical
TTOD: 100 (H04M 1/7253) Bluetooth Technology (2600)	TTOD	Technical
TTOD: 100 (H04B 1/00) Digital Communications - Lecture 1 (1hour) (2600)	TTOD	Technical
TTOD: 100 (H04B1/69) Introduction to Wireless Digital Communication (2600)	TTOD	Technical
TTOD: 100 (H04B17/391) Lecture 12 - Mobile Radio Propagation Contd . (2600)	TTOD	Technical
TTOD: 100 (H04L 1/00) Principles of Digital Communication (2600)	TTOD	Technical
TTOD: 100 (H04L 1/0014) Coding for Discrete Sources (2600)	TTOD	Technical
TTOD: 100 (H04L 1/0041) Quantization (2600)	TTOD	Technical
TTOD: 100 (H04L 25/00) Signal Space (2600)	TTOD	Technical
TTOD: 100 (H04L 25/0222) Lecture 13 - Mobile Radio Propagation Contd. (2600)	TTOD	Technical
TTOD: 100 (H04L 41/00) AI for Intent Based Networking (2400)	TTOD	Technical
TTOD: 100 (H04L 41/16) Artificial Intelligence in Analytics Data & Analytics Adobe Symposium 2018 (1 hour) (3600)	TTOD	Technical

TTOD: 100 (H04L 45/08) Gradient Descent, How Neural Networks Learn Deep Learning, Chapter 2 (30 minutes) (3600)	TTOD	Technical
TTOD: 100 (H04L 7/00) Energy and Power (Digital Circuits) (2800)	TTOD	Technical
TTOD: 100 (H04L25/02) Lecture 8 - Mobile Radio Propagation (2600)	TTOD	Technical
TTOD: 100 (H04L25/02) Lecture 9 - Mobile Radio Propagation Contd. (2600)	TTOD	Technical
TTOD: 100 (H04L25/02) Lecture 10 - Mobile Radio Propagation Contd. (2600)	TTOD	Technical
TTOD: 100 (H04L25/02) Lecture 11 - Mobile Radio Propagation Contd. (2600)	TTOD	Technical
TTOD: 100 (H04M 3/22) Telephone system call routing (2600)	TTOD	Technical
TTOD: 100 (H04M 3/46) Introduction to telephone system (2600)	TTOD	Technical
TTOD: 100 (H04N 1/00331) Automated Fingerprint Identification System (2600)	TTOD	Technical
TTOD: 100 (H04N 1/00331) Fingerprinting Introduction (2600)	TTOD	Technical
TTOD: 100 (H04N 1/00331) Introduction and History of Fingerprints (2600)	TTOD	Technical
TTOD: 100 (H04N 1/54) Color Theory (2600)	TTOD	Technical
TTOD: 100 (H04N 13/10) 3D Acquisition (2400)	TTOD	Technical
TTOD: 100 (H04N 19/00) Audio Coding: Basic Concepts (2600)	TTOD	Technical
TTOD: 100 (H04N 21/2383) Digital Video Modulation (2400)	TTOD	Technical
TTOD: 100 (H04N 21/47205) MPEG Made Easy (2400)	TTOD	Technical
TTOD: 100 (H04N 5/225) Photographic Technology Overview (2600)	TTOD	Technical
TTOD: 100 (H04N 5/2258) Silicon Image Sensors (2600)	TTOD	Technical
TTOD: 100 (H04N 5/3572) Ray Tracing, Lenses and Mirrors (2600)	TTOD	Technical
TTOD: 100 (H04Q 9/00) NASA-Ames- Entry Descent and Landing Sensors and Network for the Mars 2020 Mission (2800)	TTOD	Technical
TTOD: 100 (H04W 4/00) LTE-V2X Connecting Vehicles (2400)	TTOD	Technical
TTOD: 100 (H04W 72/00) Resource Allocation via Machine Learning (2400)	TTOD	Technical
TTOD: 100 (H04W 80/00) Deep and Reinforcement Learning in 5G and 6G Networks (2400)	TTOD	Technical
TTOD: 100 (H04W 84/12) Lecture - 37 Wireless Networks (2600)	TTOD	Technical
TTOD: 100 (H04W16/00) Types of Wireless Communication (2600)	TTOD	Technical
TTOD: 100 (H04W4/30) The Mobile Broadband Standard (2600)	TTOD	Technical
TTOD: 100 G06F 16/275 Database Replication (2100)	TTOD	Technical
TTOD: 101 (G06Q 20/06) Blockchain Tutorial (1.15 hour) (3600)	TTOD	Technical
TTOD: 101 (H04L 45/08) But what *is* a Neural Network? Deep learning, Chapter 1 (30 minutes) (3600)	TTOD	Technical
TTOD: 200 (A23L 3/00) Technological Considerations in Aseptic Processing of Foods (1700)	TTOD	Technical
TTOD: 200 (A23L 3/26) Cold Plasma Technology for Food Safety and Quality (1700)	TTOD	Technical
TTOD: 200 (A61B 6/025) Breast Tomosynthesis (2800)	TTOD	Technical
TTOD: 200 (B01J 20/226) – Development of cooperative metal-organic frameworks for CO2 separations (1700)	TTOD	Technical
TTOD: 200 (B29C 64/10) Additive Manufacturing – Current Status and Future Trends (1700)	TTOD	Technical
TTOD: 200 (B29C 64/20) Future Tires Enabled by Additive Manufacturing of Rubber and Sensors (1700)	TTOD	Technical
TTOD: 200 (B33Y 10/00) Metal Additive Manufacturing: Digital Material Fabrication (1700)	TTOD	Technical
TTOD: 200 (B33Y 10/00) The Future Repair Technologies with Additive Manufacturing Solutions (1700)	TTOD	Technical

TTOD: 200 (B33Y50/02) An Introduction to Additive Manufacturing (2100)	TTOD	Technical
TTOD: 200 (B60C 19/002) Automobile tire structures including noise-absorbing sponge materials (1700)	TTOD	Technical
TTOD: 200 (B60C 5/00) Pirelli Tyre on Mega Manufacturing (1700)	TTOD	Technical
TTOD: 200 (B64C 1/00) Airplane Aerodynamics (3600)	TTOD	Technical
TTOD: 200 (B64G 1/00) NASA's Engines and Possible Speed of Light Propulsion (3600)	TTOD	Technical
TTOD: 200 (C04B 7/367) Towards Electrochemical Synthesis of Cement (1700)	TTOD	Technical
TTOD: 200 (C07B) STN Overview	TTOD	Technical
TTOD: 200 (C07B) Structure Searching in STNext	TTOD	Technical
TTOD: 200 (C08B 30/08) Swelling and Pasting Behavior of Starch Suspensions (1700)	TTOD	Technical
TTOD: 200 (C08B) Polymer Searching in STNext	TTOD	Technical
TTOD: 200 (C08G 63/12) Commercially Attractive Renewable Chemistries (1700)	TTOD	Technical
TTOD: 200 (C09J 167/04) Biomimetic Adhesives of the Future (1700)	TTOD	Technical
TTOD: 200 (C09J 7/38) From Biomass Waste to Performance-Advantaged Polymers: Efficient Routes to Lignin Valorization	TTOD	Technical
TTOD: 200 (C12G 1/00)– Wine: more than grape juice with a dash of ethanol? Exploring the cocktail of flavor chemicals that constitute this favorite fermented beverage (1700)	TTOD	Technical
TTOD: 200 (C12N 15/8213) CRISPR Crops: Food, Farms, and the Shape of Plants to Come (1600)	TTOD	Technical
TTOD: 200 (CPC G06F 3/16) Efficient Reverb Rendering for Auditory Scenes (2600)	TTOD	Technical
TTOD: 200 (D01F 1/09) Textile Interfaces: Complex Adaptive Systems: Textiles that emit, transmit, and communicate	TTOD	Technical
TTOD: 200 (D03D 1/0088) Garment-Integrated Technologies Created Using Reactive Vapor Deposition	TTOD	Technical
TTOD: 200 (D06M 2200/00) Innovation in E-Textiles	TTOD	Technical
TTOD: 200 (F01D 5/284) Ceramic Matrix Composites	TTOD	Technical
TTOD: 200 (F24F11/72) Intro to DDC and Technical overview of communication protocols (2100)	TTOD	Technical
TTOD: 200 (G01N 11/14) Method of Measuring Coagulation of a Biological Sample (Blood) (1700)	TTOD	Technical
TTOD: 200 (G01N 2021/95676) DIP Lecture 23: Photomontage and inpainting (2600)	TTOD	Technical
TTOD: 200 (G01N 3/32) Modeling and simulation - 8 (Reliability and Failure Modeling and Simulation) (2100)	TTOD	Technical
TTOD: 200 (G01S 13/00) Automotive Radar (1 hour) (3600)	TTOD	Technical
TTOD: 200 (G01S 13/90) Basics of Synthetic Aperture Radar (3600)	TTOD	Technical
TTOD: 200 (G01V1/28) Modeling and simulation - 4 (Facies, Lithology modeling and simulation) (2100)	TTOD	Technical
TTOD: 200 (G02B 1/08) NC State University– Photonic ICs for Optical Communication Applications (TC 2800), Moderate Difficulty • NC State University– Photonic ICs for Optical Communication Applications (2800)	TTOD	Technical
TTOD: 200 (G02B 27/00) Waveguide Technology for Augmented Reality (AR) Displays- Digilens (Tech Fair) (TC 2800)	TTOD	Technical

TTOD: 200 (G05B19/02) Controllers Auto-tuning for Multirotors and Fixed-wing Vehicles (2100)	TTOD	Technical
TTOD: 200 (G05B19/02) Implementing and Real Time Testing a Controller for a Grid-Tied Inverter (2100)	TTOD	Technical
TTOD: 200 (G05B19/02) PID Control All in one Controllers including Machine Learning (2100)	TTOD	Technical
TTOD: 200 (G06F 11/36) Testing, Debugging, Exceptions, and Assertions (2100)	TTOD	Technical
TTOD: 200 (G06F 12/0246) Basics of NAND Flash-Based SSDs (2100)	TTOD	Technical
TTOD: 200 (G06F 16/2315) Concurrency Control, Atomicity (2100)	TTOD	Technical
TTOD: 200 (G06F 16/2365) Building Distributed Applications with Hyperledger Fabric (2400)	TTOD	Technical
TTOD: 200 (G06F 16/243) Neural Database and Natural Language Generation meets Databases (2100)	TTOD	Technical
TTOD: 200 (G06F 16/24549) SQL Performance Tuning (2100)	TTOD	Technical
TTOD: 200 (G06F 16/3338) Search Query Expansion Using Natural Language Processing and Machine Learning (2100)	TTOD	Technical
TTOD: 200 (G06F 16/583) DIP Lecture 6: Spatial filters (2600)	TTOD	Technical
TTOD: 200 (G06F 16/7864) DIP Lecture 7: The 2D Discrete Fourier Transform (2600)	TTOD	Technical
TTOD: 200 (G06F 3/165) Analytical Methods of Sound Field Synthesis: Theory and Applications (2600)	TTOD	Technical
TTOD: 200 (G06F 3/167) Parametric Analysis and Synthesis of Sound Scenes for Perceptual Spatial Audio Reproduction (2600)	TTOD	Technical
TTOD: 200 (G06F 40/284) NLP with Deep Learning: Lecture 12 – Subword Models (2600)	TTOD	Technical
TTOD: 200 (G06F 40/30) NLP with Deep Learning: Lecture 2 – Word Vectors and Word Senses (2600)	TTOD	Technical
TTOD: 200 (G06F 40/40) NLP with Deep Learning: Lecture 8 – Translation, Seq2Seq, Attention (2600)	TTOD	Technical
TTOD: 200 (G06F 40/56) NLP with Deep Learning: Lecture 15 – Natural Language Generation (2600)	TTOD	Technical
TTOD: 200 (G06F 8/315) Object Oriented Programming (2100)	TTOD	Technical
TTOD: 200 (G06F 8/315) Python Classes and Inheritance (2100)	TTOD	Technical
TTOD: 200 (G06F 8/315) Software Development Fundamentals, Object Oriented Programming (2100)	TTOD	Technical
TTOD: 200 (G06F 9/4401) Building hardware-based security with a Trusted Platform Module (TPM) (2100)	TTOD	Technical
TTOD: 200 (G06F 9/45504) Virtual Machines (2100)	TTOD	Technical
TTOD: 200 (G06F 9/46) Parallel Processing (2100)	TTOD	Technical
TTOD: 200 (G06F11/36) CMU Neural Nets for NLP - Debugging Neural Nets for NLP (2100)	TTOD	Technical
TTOD: 200 (G06F12/0815) Cache Coherence (2100)	TTOD	Technical
TTOD: 200 (G06F12/0815) Memory Consistency and Cache Coherence (2100)	TTOD	Technical
TTOD: 200 (G06F2212/202) Flash Memory Storage (2100)	TTOD	Technical
TTOD: 200 (G06F3/04847) Enriching the User Interface for your Next Generation IoT Design (2100)	TTOD	Technical
TTOD: 200 (G06F8/20) Quantum Computing for Computer Scientists (2100)	TTOD	Technical

TTOD: 200 (G06F9/4881) Resource Scheduling and Capacity Planning for Project Online (2100)	TTOD	Technical
TTOD: 200 (G06K 15/1844) DIP Lecture 8: Frequency domain filtering; sampling and aliasing (2600)	TTOD	Technical
TTOD: 200 (G06K 9/00154) DIP Lecture 5: Geometric operations (2600)	TTOD	Technical
TTOD: 200 (G06K 9/00442) DIP Lecture 21: Digital watermarking (2600)	TTOD	Technical
TTOD: 200 (G06K 9/20) DIP Lecture 1: Digital Image Modalities and Processing (2600)	TTOD	Technical
TTOD: 200 (G06K 9/20) DIP Lecture 3: Image acquisition and sensing (2600)	TTOD	Technical
TTOD: 200 (G06K 9/34) DIP Lecture 2: The human visual system, perception, and color (2600)	TTOD	Technical
TTOD: 200 (G06N 10/00) Quantum Computing for Computer Scientists (2100)	TTOD	Technical
TTOD: 200 (G06N 20/00) Advanced photonic devices: Mitsubishi Electric Research Laboratories (MERL) (Tech Fair) (2800)	TTOD	Technical
TTOD: 200 (G06N 20/00) Regularization (2100)	TTOD	Technical
TTOD: 200 (G06N 20/00) The Linear Model (2100)	TTOD	Technical
TTOD: 200 (G06N 3/0436) Fuzzy Logic Systems - Knowledge Based and Fuzzy Inference Engine (2100)	TTOD	Technical
TTOD: 200 (G06N 3/0454) Combining Multiple Neural Networks to Improve Generalization (2100)	TTOD	Technical
TTOD: 200 (G06N 3/08) Training Neural Networks Part 1 (2100)	TTOD	Technical
TTOD: 200 (G06N 3/08) Training Neural Networks Part 2 (2100)	TTOD	Technical
TTOD: 200 (G06N 3/084) Recurrent Neural Networks for Steering Through Time (2100)	TTOD	Technical
TTOD: 200 (G06N 5/003) Decision Trees and Ensemble Methods (2100)	TTOD	Technical
TTOD: 200 (G06N 5/003) Heuristic Search (2100)	TTOD	Technical
TTOD: 200 (G06N 5/003) Solution Space Search (2100)	TTOD	Technical
TTOD: 200 (G06N 5/003) Tree Search, Dynamic Programming, Uniform Cost Search (2100)	TTOD	Technical
TTOD: 200 (G06N 5/02) Knowledge Graph Seminar (2100)	TTOD	Technical
TTOD: 200 (G06N 5/04) Causal Inference, (MIT Open Causeware) (2100)	TTOD	Technical
TTOD: 200 (G06N 7/005) Bayesian Networks I: Inference (TC 2100)	TTOD	Technical
TTOD: 200 (G06N 7/005) Bayesian Networks II: Forward-Backward (TC 2100)	TTOD	Technical
TTOD: 200 (G06N 7/005) Markov Network – Conditional Random Field (2100)	TTOD	Technical
TTOD: 200 (G06N3/04) Memory Augmented Neural Networks (2100)	TTOD	Technical
TTOD: 200 (G06N3/08) Generative Learning Models (2100)	TTOD	Technical
TTOD: 200 (G06Q 10/04) Optimization for Machine Learning II (1 hour) (3600)	TTOD	Technical
TTOD: 200 (G06Q 10/08) Let the inventory walk and talk (15 minutes) (3600)	TTOD	Technical
TTOD: 200 (G06Q 50/06) Modeling and simulation - 5 (Home Energy Modelling) (2100)	TTOD	Technical
TTOD: 200 (G06Q10/10) Modeling and simulation - 11 (Social/Collaborative network modeling and simulation) (2100)	TTOD	Technical
TTOD: 200 (G06T 11/006) Scan Conversion (2600)	TTOD	Technical
TTOD: 200 (G06T 15/10) Quaternions (2600)	TTOD	Technical
TTOD: 200 (G06T 15/30) Clipping in Graphics (2600)	TTOD	Technical
TTOD: 200 (G06T 15/405) Depth Buffers and ray Tracing (2600)	TTOD	Technical
TTOD: 200 (G06T 15/80) Color and Shading (2600)	TTOD	Technical

TTOD: 200 (G06T 15/80) Shading and Texturing (2600)	TTOD	Technical
TTOD: 200 (G06T 2207/20192) DIP Lecture 10: Edge detection (2600)	TTOD	Technical
TTOD: 200 (G06T 3/00) DIP Lecture 22: Image blending (2600)	TTOD	Technical
TTOD: 200 (G06T 5/001) DIP Lecture 17: Image restoration and the Wiener filter (2600)	TTOD	Technical
TTOD: 200 (G06T 5/003) DIP Lecture 11: Edge linking and line detection (2600)	TTOD	Technical
TTOD: 200 (G06T 5/007 & G06T 5/009) DIP Lecture 4: Histograms and point operations (2600)	TTOD	Technical
TTOD: 200 (G06T 5/007) DIP Lecture 9: Unitary image transforms (2600)	TTOD	Technical
TTOD: 200 (G06T 5/20) DIP Lecture 14: Object and feature detection (2600)	TTOD	Technical
TTOD: 200 (G06T 5/30) DIP Lecture 13: Morphological image processing (2600)	TTOD	Technical
TTOD: 200 (G06T 7/10) DIP Lecture 12a: Image Segmentation (2600)	TTOD	Technical
TTOD: 200 (G06T 7/11) Object Detection (2 of 2) (2400)	TTOD	Technical
TTOD: 200 (G06T 7/13) Edge and Corner Detection (2400)	TTOD	Technical
TTOD: 200 (G06T 7/70) Object Detection from Range Data (2400)	TTOD	Technical
TTOD: 200 (G06T 9/00) DIP Lecture 16: Lossy image compression (2600)	TTOD	Technical
TTOD: 200 (G06T 9/00) DIP Lecture 19: Fan-beam reconstruction (2600)	TTOD	Technical
TTOD: 200 (G06T 9/00) DIP Lecture 24: Image retargeting (2600)	TTOD	Technical
TTOD: 200 (G06T 9/005) DIP Lecture 15: Lossless image coding (2600)	TTOD	Technical
TTOD: 200 (G06T 9/007) DIP Lecture 18: Reconstruction from parallel projections and the Radon transform (2600)	TTOD	Technical
TTOD: 200 (G06T 9/6256) MIT 6.S191: Convolutional Neural Networks (2600)	TTOD	Technical
TTOD: 200 (G09F 3/10) Sustainability and Decorative Labeling (1700)	TTOD	Technical
TTOD: 200 (G10L 15/16) Deep Learning in NLP and Beyond (2600)	TTOD	Technical
TTOD: 200 (G10L 15/22) Conversational Systems in the Era of Deep Learning and Big Data (2600)	TTOD	Technical
TTOD: 200 (G10L 15/22) Scalable and Robust Conversational Systems (2600)	TTOD	Technical
TTOD: 200 (G10L 25/30) NLP with Deep Learning: Lecture 3 – Neural Networks (2600)	TTOD	Technical
TTOD: 200 (G10L19/02) Audio Coding: AC-3 (2600)	TTOD	Technical
TTOD: 200 (G21C 21/00) Nuclear Reactor Construction and Operation (3600)	TTOD	Technical
TTOD: 200 (H01L 31/0256) Integration of III-Vs with Si using low-cost engineered substrates	TTOD	Technical
TTOD: 200 (H01L 31/042) Challenges and Opportunities in an Emerging Solar Economy	TTOD	Technical
TTOD: 200 (H01L 51/0035) Design and synthesis of organic electronic materials (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) - Introduction to the Materials Science of Rechargeable Batteries – Unit 3 – L3.3: Tortuosity and Porosity in Battery Materials: Inhomogeneities and Correlations (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) - Introduction to the Materials Science of Rechargeable Batteries – Unit 5 – L5.1: Battery Architectures and Design Guidelines: Electrolytes, Salts, and Separator Materials (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 3 – L3.1: Tortuosity and Porosity in Battery Materials: Tortuosity in Porous Electrodes (1700)	TTOD	Technical

TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 3 – L3.2: Tortuosity and Porosity in Battery Materials: Effect of Processing on Tortuosity (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 3 – L3.5: Tortuosity and Porosity in Battery Materials: Summary (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 4 – L4.1: Reversible and Irreversible Interfacial Reactions: The Butler-Volmer Relation (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 4 – L4.2: Reversible and Irreversible Interfacial Reactions: Interface Related Reactions (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 4 – L4.3: Reversible and Irreversible Interfacial Reactions: Dendrites in Rechargeable Batteries I (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 4 – L4.4: Reversible and Irreversible Interfacial Reactions: Dendrites in Rechargeable Batteries II (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 4 – L4.5: Reversible and Irreversible Interfacial Reactions: Summary (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 5 – L5.3: Battery Architectures and Design Guidelines: Advanced Battery Architectures (1700)	TTOD	Technical
TTOD: 200 (H01M 10/00) Introduction to the Materials Science of Rechargeable Batteries – Unit 5 – L5.4: Battery Architectures and Design Guidelines: Porous Electrode Theory (1700)	TTOD	Technical
TTOD: 200 (H02S 40/44) Modeling and simulation - 9 (Solar Energy Systems simulation) (2100)	TTOD	Technical
TTOD: 200 (H04B 1/00) Digital Communications - Lecture 2 (1 hour) (2600)	TTOD	Technical
TTOD: 200 (H04L 67/10) Considerations for Building Modern Apps for Multi-Cloud Environments (2400)	TTOD	Technical
TTOD: 200 (H04N 19/00) Audio and video compression (2600)	TTOD	Technical
TTOD: 200 (H04N 21/234309) Real-World Comparisons of H.265 and H.264 Compression (2400)	TTOD	Technical
TTOD: 200 (H04N 21/643) HOW TO: Comparing AV1, VP9, HEVC, & H.264 (2400)	TTOD	Technical
TTOD: 200 (H04N 5/2254) Photographic Technology Overview Continued (2600)	TTOD	Technical
TTOD: 200 (H04N 5/23229) Digital Camera Image-Processing Pipelines (2600)	TTOD	Technical
TTOD: 200 (H04N/405) Intro to Digital Image Processing - Dithering and half toning (2600)	TTOD	Technical
TTOD: 200 (H04R 3/00) Spherical Microphone Arrays (2600)	TTOD	Technical
TTOD: 200(G21C 1/00) How Nuclear Energy Works (3600)	TTOD	Technical
TTOD: 300 (B64C 27/00) Helicopter Aerodynamics (3600)	TTOD	Technical
TTOD: 300 (C08L 51/10) Structure, Dynamics, and Transport of Polymer-Grafted Nanoparticles (1700)	TTOD	Technical
TTOD: 300 (G06F 11/3412) Monte Carlo Simulation (2100)	TTOD	Technical
TTOD: 300 (G06F 3/041) Touch Eventa & Multi Touch (2600)	TTOD	Technical

TTOD: 300 (G06F 40/30) AI-Based Applications – Natural Language Processing (NLP) 1	TTOD	Technical
TTOD: 300 (G06F 8/314) The Future is Parallel, and the Future of Parallel is Declarative / Functional Language (2100)	TTOD	Technical
TTOD: 300 (G06F 9/45504) Energy-Efficient Management of Virtual Machines in Data Centers for Cloud Computing (2100)	TTOD	Technical
TTOD: 300 (G06F8/60) Deep Learning Software (2100)	TTOD	Technical
TTOD: 300 (G06K 9/6256) Advanced Lecture 3 - Image Classification via Deep Learning (2600)	TTOD	Technical
TTOD: 300 (G06N 10/70) Introduction to Quantum Error Correction (2100)	TTOD	Technical
TTOD: 300 (G06T 11/006) Ray Tracing (2600)	TTOD	Technical
TTOD: 300 (G06T 11/203) Camera Motion (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 10/12 Unsupervised Representation Learning (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 11/12 Modern Latent Variable Models (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 2/12 Neural Networks Foundations (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 3/12 Convolutional Neural Networks for Image Recognition (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 4/12 Advanced Models for Computer Vision (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 5/12 Optimization for Machine Learning (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 6/12 Sequences and Recurrent Networks (2600)	TTOD	Technical
TTOD: 300 (G06T 9/6256) DeepMind x UCL Deep Learning Lectures 9/12 Generative Adversarial Networks (2600)	TTOD	Technical
TTOD: 300 (G09G 3/30) Organic Light Emitting Diode (OLED) (2600)	TTOD	Technical
TTOD: 300 (G10L25/00) Machine Learning in Voice Processing (2600)	TTOD	Technical
TTOD: 300 (G21K 1/00) Ion-Nuclear Interactions II—Bremsstrahlung, X-Ray Spectra, Cross Sections (3600)	TTOD	Technical
TTOD: 300 (G21N 23/00) Uses of Photon and Ion Nuclear Interactions — Characterization Techniques (3600)	TTOD	Technical
TTOD: 300 (H01L 51/0032) Markush and Positional Isomer Structure Search in STNext	TTOD	Technical
TTOD: 300 (H01L 51/0032) Metal Complex Structure Search in STNext	TTOD	Technical
TTOD: 300 (H03M 13/2927) Decoding of Low Density Parity Check Codes Part 1 (2100)	TTOD	Technical
TTOD: 300 (H03M 13/2927) Decoding of Low Density Parity Check Codes Part 2 (2100)	TTOD	Technical
TTOD: 300 (H04B 10/548) Lecture - 22 Modulation Techniques (Contd.) (2600)	TTOD	Technical
TTOD: 300 (H04B 7/02) Lecture - 30 Equalization and Diversity Techniques (2600)	TTOD	Technical
TTOD: 300 (H04B 7/02) Lecture - 31 Equalization and Diversity Techniques (2600)	TTOD	Technical
TTOD: 300 (H04B 7/04) 5G NR overview (2600)	TTOD	Technical
TTOD: 300 (H04B10/556) Lecture - 26 Modulation Techniques (Contd.) (2600)	TTOD	Technical
TTOD: 300 (H04B10/70) The Future of Quantum Communication (2600)	TTOD	Technical

TTOD: 300 (H04B14/004) Lecture - 21 Modulation Techniques for Mobile Communication (2600)	TTOD	Technical
TTOD: 300 (H04N 21/234) Adaptive Bit Rate video delivery (MPEG-DASH) (2400)	TTOD	Technical
TTOD: 300 (H04N 21/43) A paradigm shift in codec standards: MPEG-5 Part 2 LCEVC, higher quality with any codec, maintaining decoder compatibility (2400)	TTOD	Technical
TTOD: 300 (H04N 21/818) AWS Webcast - On Demand Video Streaming using Amazon CloudFront (2400)	TTOD	Technical
TTOD: 300 (H04R3/12) Device localization in a music environment (2600)	TTOD	Technical
TTOD: 300 (H04W4/40) C-V2X (2600)	TTOD	Technical
TTOD: 300 (H04L 1/0076) The Flesh of Polar Codes (2100)	TTOD	Technical
TTOD: 300 Improving Cardiac Outcomes Through Wearables (2600)	TTOD	Technical
TTOD: 300(G21K 1/00) Ion-Nuclear Interactions I—Scattering and Stopping Power Derivation, Ion Range (3600)	TTOD	Technical
TTOD: 400 (H03M 13/255) Low Density Check Codes (2100)	TTOD	Technical
TTOD: A61M 16/00 – Positive Pressure Ventilation (TC 3700)	TTOD	Technical