Departments	Major	First Name	Middle Name	Last Name	Dissertation Title (PH.D's ONLY)	Adivsor(s) (PH.D's ONLY)	Degree Term
Bioengineering	Bioengineering	Binru		Chen	Microfluidics System for Cell Reprogramming	Song Li	Spring 2023
Bioengineering	Bioengineering	Marc		Creixell Santa Olalla	Dissecting AXL-mediated resistance to EGFR-targeted therapies in lung cancer	Aaron Meyer	Winter 2023
Bioengineering	Bioengineering	Amy	Lauren	Cummings	Integrating Multimodal Data for Personalized Models of Cancer	Alex A T Bui	Fall 2022
Bioengineering	Bioengineering	Jaime		de Anda Barbosa	From Collective Motility of Bacteria to the Machine Learning Guided Identification of Novel Immunomodulatory peptides.	Gerard C.L. Wong	Spring 2023
Bioengineering	Bioengineering	Mohammadi		Farnaz	Mathematical Tools for Dissecting the Heterogeneity in and Cell Cycle Contributions of Cancer Therapy	Aaron Meyer	Spring 2023
Bioengineering	Bioengineering	Isaura	Maia	Frost	Cell Squeeze Devices for Intracellular Delivery	Paul S. Weiss and Steven J. Jonas	Summer 2023
Bioengineering	Bioengineering	Simon		Han	A Multi-part Optimization Framework for POMDPs in Lung Cancer Screening	Alex AT Bui and Denise R Aberle	Winter 2023
Bioengineering	Bioengineering	Martin	Carl	Hartel	Wearable Sensors for Personalized Biomedical Monitoring: From Physiological Signals to Metabolites and Hormones	Paul Weiss + Anne Andrews	Winter 2023
Bioengineering	Bioengineering	Felis (Doyeon)		Koo	Analysis of Single-cell Secretion using Nanovial Technology for Improved Discovery and Therapeutic Potential in Cell Therapies	Dino Di Carlo	Spring 2023
Bioengineering	Bioengineering	Yannan		Lin	Characterizing Patient Adherence to Lung Cancer Screening Guidelines	Denise R Aberle and William Hsu	Spring 2023
Bioengineering	Bioengineering	Chau		Ly	Thesis Dissertation Title Not Available	Amy Rowat	Spring 2023
Bioengineering	Bioengineering	Yayao		Ma	Computational Fluorescence Lifetime Imaging Microscopy for Biomedical Science	Liang Gao	Spring 2023
Bioengineering	Bioengineering	Sabrina Leah Levy		Maoz	Memory and spatial representations in the human medial temporal lobe using intracranial electrophysiology in virtual reality and during real-world ambulation	Wentai Liu and Nanthia Suthana	Spring 2023
Bioengineering	Bioengineering	Hiromi		Miwa	Optimization of Particle-based Hydrogel Biophysical and Biochemical Properties for Biomedical Applications ,	Dino Di Carlo	Fall 2022
Bioengineering	Bioengineering	Hossein		Montazerian	Polycatechol-Functionalized Gelatin Bioadhesives for Sutureless Wound Closure	Paul S. Weiss and Nasim Annabi	Spring 2023
Bioengineering	Bioengineering	Jennifer	Sara	Polson	Leveraging Clinical Imaging and Machine Learning Algorithms to Characterize Acute Ischemic Stroke Patients for Treatment Decision-Making	Corey Arnold	Winter 2023
Bioengineering	Bioengineering	Mehrdad		Roustaei	Mechano-Genomic Analysis to Identify Flow-mediate Vascular Transducer: A multi-Scale Approach	Tzung Hsiai	Spring 2023
Bioengineering	Bioengineering	Vishwesh	Nilesh	Shah	Democratizing Droplet Based Assays for Protein Measuremnet	Dino Di Carlo	Spring 2023
Bioengineering	Bioengineering	Trinny		Tat	Thesis Dissertation Title Not Available	Jun Chen	Summer 2023
Bioengineering	Bioengineering	Peyton	John	Tebon	High-Throughput Tumor Organoid Models for Functional Precision Medicine	Alice Soragni and Michael Teitell, M.D.	Fall 2022
Bioengineering	Bioengineering	Jorge		Tordera Mora	Developing the Next-generation Biomedical Optical Systems: Higher Sensitivity, Deeper in Tissue, and Faster Dynamics.	Liang Gao	Fall 2022
Bioengineering	Bioengineering	Shreya Vikram		Udani	Engineered Hydrogel Microparticles for Single-Cell Multiomics and Morphology analysis	Dino Di Carlo	Summer 2023
Bioengineering	Bioengineering	Andy		Vuong	Quantifying the Relationships Among Selective Motor Control, Brain Imaging, Biomechanics and Physical Therapy in Children with Spastic Bilateral Cerebral Palsy	Eileen Fowler	Fall 2022
Bioengineering	Bioengineering	Haoyue		Zhang	Improving Acute Ischemic Stroke diagnosis using Medical Imaging and Deep Learning Methods	Corey Arnold	Spring 2023
Bioengineering	Bioengineering	Xuexiang		Zhang	Tuning the Local Immunity Via Microneedle Patches	Song Li	Summer 2023
Bioengineering	Bioengineering	Zhaohuan		Zhang	Quantitative Prostate Diffusion MRI and Multi-dimensional Diffusion-Relaxation Correlation MRI for Characterization of Prostate Cancer	Hoden Wu	Spring 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Fahim		Abdullah	Sparse Identification-Based Modeling and Predictive Control of Nonlinear Processes	Panagiotis D Christofides	Spring 2023
[redacted]							
Chemical and Biomolecular Engineering	Chemical Engineering	Steven	Juan	Bustillos	Implementation of Ion Exchange Processes on Industrial Waste Streams for CO2 Mineralization	Dante Simonetti	Spring 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Yan		Cao	Development and Microfabrication of the Next Generation Biosensors for Nucleic Acids and Neurotransmitters	Harold G. Monbouquette	Spring 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Roxanne		Castillo	Overcoming the Biological Barriers of Nanomedicine	Yunfeng Lu and Jeffrey I. Zink	Summer 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Alexis	Kyle	Fortini	Thesis Dissertation Title Not Available		Fall 2022
Chemical and Biomolecular Engineering	Chemical Engineering	Joon Baek		Jang	Decoupling Mass Transport Effects and Revealing Electrochemical CO2 Reduction Mechanism on Copper: From Designing Reactor to Developing Reaction-Transport Kinetics Model	Carlos G. Morales-Guio	Summer 2023
Chemical and Biomolecular Engineering	Chemical Engineering	John	Edward	Lowd	Synthesis and Enhancement of Process Intensification Networks for Hydrogen Production	Vasilios I Manousiouthakis	Fall 2022
Chemical and Biomolecular Engineering	Chemical Engineering	Junwei		Luo	Machine Learning Modeling for Process Control and Electrochemical Reactor Operation	Panagiotis D. Christofides	Summer 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Joshua	Russell	Misa	Engineering a yeast-based platform for production of novel monoterpene indole alkaloid analogs	Yi Tang	Spring 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Kelly J		Nocon	Engineering Analysis of Uncertain, Lumped Parameter, and Distributed Parameter Systems With Applications to the Sustainability Over Sets Mathematical Framework	Vasilios I Manousiouthakis	Winter 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Ikechukwu	Chukwuemeka	Okorafor	Development of a novel olivetolic acid platform for the further study of the the therapeutic/pharmacological effects of cannabinoids	Yi Tang	Spring 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Kangze		Shen	Electrochemical Conversion of Greenhouse Gas Towards Value-Added Products	Carlos G. Morales-Guio	Spring 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Ibubeleye		Somiari	Synthesis of Intensified Processes for the Production of Valuable Chemicals	Vasilios I. Manousiouthakis	Spring 2023
Chemical and Biomolecular Engineering	Chemical Engineering	Vaidish		Sumaria	Modeling transition metal surface reconstruction in CO gas environment	Philippe Sautet	Winter 2023
[redacted]							
Chemical and Biomolecular Engineering	Chemical Engineering	Sungil		Yun	First-Principles and Multiscale Modeling for Design and Operation of Atomic Layer Processing	Panagiotis D Christofides	Spring 2023
Civil and Environmental Engineering	Civil Engineering	Edward	Tristan	Buckreis	Customization of Path and Site Response Components of Global Ground Motion Models for Application in Sacramento-San Joaquin Delta Region of California	Jonathan P. Stewart & Scott Brandenbe	Fall 2022
Civil and Environmental Engineering	Civil Engineering	Ileana	Aracely	Callejas	Emerging Techniques in Coastal Water Quality in the US and Belize: Remote Sensing and Metagenomics	Jennifer Jay	Spring 2023
Civil and Environmental Engineering	Civil Engineering	Marisol	Alejandria	Cira	Sources, Fate, and Transport of Fecal Indicator and Antibiotic Resistant Bacteria in Coastal Environments	Jennifer Jay	Spring 2023
Civil and Environmental Engineering	Civil Engineering	Marie-Pierre	Chloe	Delisle	A high-resolution numerical investigation of beach groundwater and swash interactions	Timu Gallien	Spring 2023
Civil and Environmental Engineering	Civil Engineering	Yufeng		Dong	Vehicle-Bridge Interaction element Scheme and Domain Reduction Method implementations in ABAQUS for analyses of High-Speed Railway Structures under moving loads'.	Ertugrul Taciroglu	Summer 2023
Civil and Environmental Engineering	Civil Engineering	Yiwen		Fang	Examination of the space-time variability and uncertainty of snow water storage over the Western U.S. and Andes	Steve Margulis	Winter 2023
Civil and Environmental Engineering	Civil Engineering	Matias Andres	Rojas	Leon	Framework to Define Performance Requirements for Structural Component Models and Application to Reinforced Concrete Wall Shear Strength	John Wallace	Fall 2022
Civil and Environmental Engineering	Civil Engineering	Yiming		Liu	Exploiting Interfacial Energy Transfer for Sustainable Brine Management	David Jassby	Spring 2023
Civil and Environmental Engineering	Civil Engineering	Joseph Thomas-Daniel		Lucey-Renteria	Characterizing compound coastal flood risks in urbanized communities: A Multivariate approach	Timu Gallien	Summer 2023
Civil and Environmental Engineering	Civil Engineering	Shuochuan		Meng	Development of a Regional Wind Risk Assessment Framework for Wood-frame Single-family Residential Building Stock	Ertugrul Taciroglu	Spring 2023
Civil and Environmental Engineering	Civil Engineering	Morolake	Omolara	Omoya	Bayesian Methods for Modeling Post-Earthquake Damage and Recovery of Infrastructure	Henry Burton	Winter 2023
Civil and Environmental Engineering	Civil Engineering	Pia	Maria	Ramos	Tuning Interactions Between Contaminants and Surfaces: Applications Ranging from Biological Treatment to Biofouling Prevention	Shaily Mahendra	Fall 2022
Civil and Environmental Engineering	Civil Engineering	Jacob	Rubin	Schaperow	Enabling remote-sensing based streamflow estimation at the continental scale	Steve Margulis	Spring 2023
Civil and Environmental Engineering	Civil Engineering	Aidin		Tamhidi	Earthquake Resilient Smart Cities: A Framework for Collection and Utilization of Highly Granular Field Data for Seismic Performance Characterization of Soft-Story Buildings	Yousef Bozorgnia	Fall 2022

Civil and Environmental Engineering	Civil Engineering	Maria	Alexandra	Winters	Quantitatively Characterizing Artificial Dune Impacts on Backshore Vulnerability in Wave and Tidally Dominated Coastal Environments	Timu Gallien	Summer 2023
Civil and Environmental Engineering	Civil Engineering	Zhenpeng		Xu	Additive Manufacturing Processes for Structural and Hybrid Architectured Materials	Mathieu Bauchy & Xiaoyu Zheng	Winter 2023
Civil and Environmental Engineering	Civil Engineering	Qi		Zhou	Decoding the genome of disordered materials	Mathieu Bauchy	Winter 2023
Computer Science	Computer Science	Zhaoxing		Bu	Hybrid Heuristic Algorithms for Single-Agent Planning and Search With Limited Memory	Richard Korf	Winter 2023
Computer Science	Computer Science	Tyler	Austin	Davis	Analytical Methods for Diagnosis and Prediction of Health Conditions	Majid Sarrafzadeh	Winter 2023
Computer Science	Computer Science	Licheng		Guo	Co-optimizing High-Level Synthesis and Physical Design for Rapid Timing Closure of Large-Scale FPGA Designs	Jason Cong	Fall 2022
Computer Science	Computer Science	Yunqi		Guo	Designing for Inclusion: Mobile Systems and Assistive Augmented Reality Solutions to Bridge the Communication Gap between Oral and Sign Language	Songwu Lu	Spring 2023
Computer Science	Computer Science	Junheng		Hao	Incorporating Ontological Information in Knowledge Graph Learning and Empowered Interdisciplinary Applications	Wei Wang and Yizhou Sun	Fall 2022
Computer Science	Computer Science	Ziniu		Hu	Make Knowledge Computable: Towards Differentiable Neural-Symbolic AI	Yizhou Sun	Spring 2023
Computer Science	Computer Science	Kuan-Hao		Huang	Building Reliable and Robust NLP Models: Enhancing Understanding of Semantically Equivalent Texts	Kai-Wei Chang	Spring 2023
Computer Science	Computer Science	Eli	Aaron	Jaffe	Prio+: Private Aggregate Statistics via Boolean Shares	Rafail Ostrovsky	Spring 2023
Computer Science	Computer Science	Baoxiong		Jia	Incorporating World Model Knowledge into Event Parsing, Prediction, and Reasoning	Song-Chun Zhu	Fall 2022
Computer Science	Computer Science	Ruth	Dolly	Johnson	Leveraging genetic and electronic health record data to understand complex traits and rare diseases	Sriram Sankararaman	Winter 2023
Computer Science	Computer Science	Kimmo	Mikael	Karkkainen	Machine Learning Methods for Personalized Healthcare	Majid Sarrafzadeh	Spring 2023
Computer Science	Computer Science	Alan	Ulfers	Litteneker	Towards Intelligent Computational Tools for Virtual Cinematography	Demetri Terzopoulos	Fall 2022
Computer Science	Computer Science	Xiaojian		Ma	A Unified Framework with Benchmarks for Human-like Visual and Relational Reasoning in the Real World	Song-Chun Zhu	Spring 2023
Computer Science	Computer Science	Jonathan	Craig	Mitchell	Adversarial Attacks and Defense using Energy-Based Image Models	Song-Chun Zhu	Fall 2022
Computer Science	Computer Science	Nadav		Rakocz	Computational Methods to Inform Healthcare Decisions at Individual and Population Levels	Sriram Sankararaman	Summer 2023
Computer Science	Computer Science	Aishwarya		Sivaraman	Ensuring Correctness of Modern Software Systems by Example	Todd Millstein	Fall 2022
Computer Science	Computer Science	Alan	Scott	Tang	Exploiting Modularity to Scale Verification of Network Router Configurations	Todd Millstein and George Varghese	Spring 2023
Computer Science	Computer Science	Kodi	Nicole	Taraszka	Understanding the genetic architecture of complex traits through meta-analysis	Eleazar Eskin	Fall 2022
Computer Science	Computer Science	Alexandre	Michel	Tiard	Thesis Dissertation Title Not Available	Stefano Soatto	Spring 2023
Computer Science	Computer Science	Stephanie		Tsuei	Uncertainty Calibration for Robotic Navigation and Vision	Stefano Soatto	Winter 2023
Computer Science	Computer Science	Akshay Anand		Utture	Adapting Static Analysis Tools to Meet User Expectations	Jens Palsberg	Spring 2023
Computer Science	Computer Science	Jian		Weng	Developing, Synthesizing, and Automating Decoupled-Spatial Architectures	Tony Nowatzki	Spring 2023
Computer Science	Computer Science	Xiao		Zeng	Bio-Inspired Simulation With Learning-Based Automatic Motion Control	Demetri Terzopoulos	Fall 2022
Computer Science	Computer Science	Chiao-Yueh		Zhang	Analysis of Non-IID Data through a causal lens	Judea Pearl	Summer 2023
Computer Science	Computer Science	Wenhao		Zhang	Towards Fair and Interpretable AI Healthcare predictive Models: from wearable sensors to causal graphs	Ramin Ramezani	Spring 2023
Computer Science	Computer Science	Zeyu		Zhang	Understanding Geometry and Topology Fluent for Robot Planning in Daily Scenes	Song-Chun Zhu	Winter 2023
Computer Science	Computer Science	Jinghao		Zhao	Enhancing System Resiliency for 5G and 5G IoT: A Plug-and-Play, SIM/eSIM-based Approach	Songwu Lu	Spring 2023
Computer Science	Computer Science	Dongruo		Zhou	Efficient Reinforcement Learning through Uncertainties	Quanquan Gu	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Yunhao		Ba	On Hybrid Methods that Blend Computer Vision and Physics	Achuta Kadambi	Winter 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Veljko		Boljanovic	Millimeter-Wave Channel Estimation with True-Time-Delay Arrays and Its Use for Network Performance Optimization	Danijela Cabric	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Kenny	Jieyou	Chen	Fast and Adaptive Geometric Robot Perception	Brett Lopez and Jonathan Kao	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Melikasadat		Emami	Asymptotics of Learning in Neural Networks	Alyson Fletcher	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Chunru		Fan	Multi-Functional Photodetector Based on Graphene	Jia-Ming Liu	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Jaime	Gonzalo	Flor Flores	Resolving atto-Newton forces and Femtometer Motional Displacement in Chip-Scale Cavity Optomechanics	Chee Wei Wong	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Mahdi		Forghani	A Low-Power 112-Gb/s Wireline PAM4 Transmitter	Behzad Razavi	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Mostafa		Hosseini	Integrated Terahertz Transceivers in Silicon for Point-to-Point Wireless Communication	Aydin Babakhani	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Pawan Kumar		Khanna	A Low-Power 28-GHz Beamforming Receiver with On-Chip LO Synthesis	Behzad Razavi	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Michael	Jonathan	Kleinman	On the Structure and Learning of Perceptual Representations in Deep Neural Networks	Jonathan Kao	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Xurong		Li	Terahertz Focal-Plane Array for Terahertz Time-Domain Imaging	Mona Jarrahi	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Sida		Li	Integrated Circuits for Cardiac Pacemakers and Spaceborne Instruments	Dejan Markovic	Winter 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Yen-Ju		Lin	Label-Free Optical Mapping for Large-Area Biomechanical Dynamics of Multicellular Systems	Pei-Yu Chiou and Rob Candler	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Tairan		Liu	Deep Learning in Optical Microscopy, Holographic Imaging and Sensing	Aydogan Ozcan	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Siyuan		Liu	Millimeter Scale Magnetic Field Manipulation in MRI RF Coil and Magnetic Shielding Applications	Rob Candler	Winter 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Essalat		Mahmoud	Time-series Classification: An Application to Toothbrushing Behavior Monitoring Using Motion Sensors	Gregory Pottie	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Deniz		Mengu	Diffractive Optical Networks	Aydogan Ozcan	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Sepideh		Nouri	An Embedded Nonvolatile SRAM in Logic CMOS Process	Subramanian Iyer	Winter 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Omead		Pooladzandi	Fast Training of Generalizable Deep Neural Networks	Gregory Pottie	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Benjamin	Arnell	Pound	Miniature Magnetic Devices for Compact Particle Accelerator Applications	Rob Candler	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Wojciech	Piotr	Romaszkan	Efficient Machine Learning Acceleration at the Edge	Puneet Gupta	Winter 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Swapnil Sayan		Saha	Physics-Aware Tiny Machine Learning	Mani Srivastava	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Mojtaba		Sahraee Ardakan	Estimation and Inference in High-dimensional Models	Alyson Fletcher	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Yue		Shen	THz Time-Domain Characterization of Amplifying Quantum-Cascade Metasurface	Benjamin Williams	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Akash Deep		Singh	Deep Scene Understanding using RF and its Fusion with other Modalities	Mani Srivastava	Winter 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Junbo		Wang	Beam Steerable Antennas for CubeSats: Novel Synthesis Methods and Implementations of Reflectarrays and Transmitarrays	Yahya Rahmat-Samii	Summer 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Linfang		Wang	Low-Complexity Decoding of Low-Density Parity Check Code Through Optimal Quantization and Machine Learning and Optimal Modulation and Coding for Short Block-Length Transmission	Richard Wesel	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Tianyi		Wang	Data-efficient Deep Learning of Dynamical Systems	Vwani Roychowdhury	Spring 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Yu-Tao		Yang	Niobium-based Superconducting Silicon Interconnect Fabric for Future Cryogenic Applications	Sabramanian Iyer	Fall 2022
Electrical and Computer Engineering	Electrical and Computer Engineering	Wenhao		Yu	An Online Hardware Scheduler for Real Time Reconfigurable Architecture	Dejan Markovic	Summer 2023
Electrical and Computer Engineering	Electrical and Computer Engineering	Tingyi		Zhou	Computing with Femtosecond Laser Pulses	Bahram Jalali	Fall 2022
Electrical and Computer Engineering	Electrical Engineering	Dustin	Connor	Brown	Characterization, Simulation, and Measurement of the Far Field Error Vector Magnitude of Millimeter-Wave Antennas and Phased Arrays using Compact and Planar Near Field Ranges	Yahya Rahmat-Samii	Winter 2023
Materials Science and Engineering	Material Science and Engineering	Yousif		Alsaid	Smart Polymers Towards Next-Generation Water-Energy Nexus Technologies	Ximin He	Spring 2023
Materials Science and Engineering	Material Science and Engineering	Rajashree		Bhattacharya	Microwave Power Limiters Exploiting the Insulator to Metal Transition of Lanthanum Cobalt Oxide	Dwight Streit	Spring 2023
Materials Science and Engineering	Material Science and Engineering	Hyunpil		Boo	Design and Optimization of Metasurface-Based Diffractive Waveguide Systems for Augmented Reality Applications with Enhanced Optical Resolution	Chee Wei Wong	Spring 2023
Materials Science and Engineering	Material Science and Engineering	John		Brewer	Engineering of Long Wave Infrared Nanophotonics	Aaswath Raman	Summer 2023
Materials Science and Engineering	Material Science and Engineering	Xuanbing		Cheng	Development Methodologies of Wearable Biosensors for Personalized Health Monitoring	Sam Emaminejad	Summer 2023
Materials Science and Engineering	Material Science and Engineering	Maggie Taylor		Fox	Design and Fabrication of Non-Planar and Solid State Batteries	Bruce Dunn	Summer 2023
Materials Science and Engineering	Material Science and Engineering	Sicong		He	Defects influence plasticity in BCC High Entropy Alloys	Jaime Marian	Summer 2023
Materials Science and Engineering	Material Science and Engineering	Brea	Elizabeth	Hogan	Synthesis and Optimization of Praseodymium Telluride System Through Alloys and Composites	Bruce Dunn	Summer 2023
Materials Science and Engineering	Material Science and Engineering	Lixian		Huang	Physics-based Kinetic Monte Carlo Model for Resistive Random Access Memory Reliability Assessment and Optimization	Ali Mosleh	Spring 2023
Materials Science and Engineering	Material Science and Engineering	Xin		Huang	Controlling thermal emission: Fundamental Mechanism and applications to water and energy technologies	Aaswath Raman	Spring 2023
Materials Science and Engineering	Material Science and Engineering	Patricia Elena		McNeil	Transport Properties and Performance in Amorphous Silica and Amorphous Metal Oxide Materials	Bruce Dunn	Spring 2023

Materials Science and Engineering	Material Science and Engineering	Theresa Mae		Stewart	Physics-based Probabilistic Failure Modeling of Non-metallic Pipelines in Oil and Gas Applications	Ali Mosleh	Summer 2023
Materials Science and Engineering	Material Science and Engineering	Hanxiang		Wu	Wearable Electronics for Human-Machine Interfaces Enabled by New Functional Materials	Qibing Pei	Spring 2023
Materials Science and Engineering	Material Science and Engineering	Yixuan		Xu	Exploring the Crossover of Attractive Gelation and Repulsive Jamming in Dense Soft Materials	Thomas G. Mason and Bruce S. Dunn	Spring 2023
Materials Science and Engineering	Materials Science and Engineering	Jin		Cai	Investigations of Copper-based Catalysts for Electrochemical Carbon Dioxide Reduction	Yu Huang	Fall 2022
Materials Science and Engineering	Materials Science and Engineering	Aditya		Deshpande	Synthesis and Customization of Transition Metal Dichalcogenides	Suneel Kodambaka and Mark Goorsky	Fall 2022
Materials Science and Engineering	Materials Science and Engineering	Michael	Evan	Liao	Heterogeneous Integration of Wafer Bonded Wide Bandgap Semiconductors	Mark Goorsky	Fall 2022
Materials Science and Engineering	Materials Science and Engineering	Haotian		Liu	Unveiling the Structure-performance Relationship of the Cathode and Anode Catalyst in Electrochemical Water-splitting		Fall 2022
Materials Science and Engineering	Materials Science and Engineering	Zeyan		Liu	Durable Pt-based Catalysts for Oxygen Reduction Reaction in Fuel Cell	Yu Huang	Fall 2022
Materials Science and Engineering	Materials Science and Engineering	Zirui		Liu	Towards Minimally Invasive Cancer Detections through Label-free Surface Enhanced Raman Spectroscopy of Individual Small Extracellular Vesicles ,	Ya-Hong Xie	Fall 2022
Materials Science and Engineering	Materials Science and Engineering	Chiao-Yueh		Lo	Design and Application of Functional Hydrophilic Polymers in Engineering and Biomedical Drug Delivery	Bruce S. Dunn and Jeffrey I. Zink	Fall 2022
Materials Science and Engineering	Materials Science and Engineering	Edgar		Olivera	Optimizing Porous Materials for Electrochemical Applications	Sarah Tolbert	Winter 2023
Materials Science and Engineering	Materials Science and Engineering	Roshan	Joseph	Plamthottam	Novel Dielectric Elastomer Actuator Configurations and Devices for Soft Robotic and Wearable Applications	Qibing Pei	Winter 2023
Materials Science and Engineering	Materials Science and Engineering	Dong		Wu	Additive manufacturing of functional materials based on digital light processing	Ximin He	Winter 2023
Materials Science and Engineering	Materials Science and Engineering	Dong		Xu	Applications of van der Waals Thin Film	Yu Huang	Winter 2023
Materials Science and Engineering	Materials Science and Engineering	Yusen		Zhao	Self-sustainable Autonomous Soft Robots: from Actuators to Sensors and Energy Storage	Ximin He	Fall 2022
Mechanical and Aerospace Engineering	Aerospace Engineering	Simon		He	Receptivity of Straight Blunt Cones to Broadband Freestream Pulse Disturbances for Transition Prediction in Hypersonic Flow	Xiaolin Zhong	Fall 2022
Mechanical and Aerospace Engineering	Aerospace Engineering	Christopher		Jelloian	Non-Equilibrium in the Mars Entry Shock Layer Characterized via Laser Absorption Spectroscopy	Raymond M Spearrin	Fall 2022
Mechanical and Aerospace Engineering	Aerospace Engineering	Jean Helder		Marques Ribeiro	Direct numerical simulations, resolvent analysis, and flow control of laminar post-stall wakes around finite tapered swept wings	Kunihiko Taira	Summer 2023
Mechanical and Aerospace Engineering	Aerospace Engineering	Ho-ting		Tung	Thesis Dissertation Title Not Available		Summer 2023
Mechanical and Aerospace Engineering	Aerospace Engineering	Luca		Valdarno	Heat Transfer in the Porous Structure of an Additively Manufactured Evaporator for a Two-Phase Mechanically Pumped Loop for Space Applications	Vijay K. Dhir	Fall 2022
Mechanical and Aerospace Engineering	Aerospace Engineering	Peter Lloyd		Wright	Porous Electrospray Fluid Mechanics	Richard E Wirz	Fall 2022
Mechanical and Aerospace Engineering	Aerospace Engineering	Huan		Wu	First-Principles Theoretical Investigation on Phonon Transport in Materials with Extreme Conductivity	Yongjie Hu	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Mostafa	Mohamed Osama	Abuseada	Solar-Thermal Production of Hydrogen and Graphitic Carbon via Methane Decomposition	Timothy S. Fisher	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Min Sung		Ahn	Development and Real-Time Optimization-based Control of a Full-sized Humanoid for Dynamic Walking and Running	Dennis Hong	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Abdulaziz	M A A	Alawadhi	Rotor Dynamics and Control Applications in a 6 Degree of Freedom Twist-Tilt Quadcopter	Tsu-Chin Tsao	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Angel		Aleman	*In situ* Scanning Electron Microscopy Based Uniaxial Compression of Sub-Micrometer-Size Transition-Metal Carbide Single-Crystalline Pillars	Nasr Ghoniem and Suneel Kodambaka	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Abdalla		Alghfeli	Direct concentrated solar synthesis of graphene	Timothy S Fisher	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Sun Woong		Baek	Thermodynamic characterization and heat generation of fast-charging Wadsley-Roth shear phase materials for battery application	Laurent G Pilon	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Diederik Frank H		Beckers	Fast models and reinforcement learning control of unsteady aerodynamics	Jeff D. Eldredge	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Emily	Ailene	Burnside	Multiferroic Antennas for Communication in Lossy Media	Greg Carman	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Eun Sang		Cha	Miniature Autonomous Racing for Research and Education	Dennis Hong	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Hosik		Chae	Locomotion Control of Legged Robots using Data-Driven Techniques: Application to a Buoyancy Assisted Biped	Dennis Hong	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Ali	Dshm	Dashti	Mechanical Characterization and Processing of Flexible and Transparent Ambiently-Dried Aerogels	Laurent G Pilon	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Victor	Manuel	Estrada	Development of Ferroic MEMS Devices for Single-Cell Manipulation and Implantable Communications	Gregory Carman and Abdon Sepulveda	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Matevž		Frajnkovič	Combining Calorimetry and Electrochemical Methods to Gain Insight Into the Charging Mechanisms of Electrochemical Capacitors and Batteries	Laurent G Pilon	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Henry		Huh	Cone-Jet and Emission Processes for Electrospray Thrusters via Computational Analysis	Richard E. Wirz	Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Yuchen		Jiang	Optimization studies of liquid metal systems for a fusion power reactor	Sergey Smolentsev and Jeff Eldredge	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Hao		Lee	Energy Recycling and Management for Lower Limb Exoskeleton	Jacob Rosen	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Ryan	Hansen	Lee	Mechanical Neural-Networks: Materials That Learn Their Properties and Behaviors	Jonathan Hopkins	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Man		Li	Thermal Transport in Heterogeneous Nanostructures	Yongjie Hu	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Sangmin		Lim	Discrete Differential Geometry-Based Modeling of Robots at Low Reynolds Number	Mohammad Khalid Jawed	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Seonglin		Lim	Thesis Dissertation Title Not Available		Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Jingke		Liu	Fundamental Study of Zinc Matrix Nanocomposite for Biomedical Applications	Xiaochun Li	Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Matthew Taylor		McIntosh	Developing A Micromagnetic Based Energy Method at the Atomic Scale	Gregory Carman	Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Anil	Pradeep	Nair	Rotating detonation rocket engine analysis with high-speed optical diagnostics	R. Mitchell Spearrin	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Angelica		Ottaviano	Thesis Dissertation Title Not Available		Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Eric	Richard	Peltola	Human Hand Pose Estimation and Artificial Tactile Sensing in Harsh Environments	Veronica J Santos	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Kenneth Ernest		Pyle	Design, Modeling, and Control of an Electrostatic Suspension Platform for Thin Disks	Robert M'Closkey	Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Da Wei David		Ren	Linear stability analysis of a jet-in-crossflow	Ann Karagozian and Leo Alves (UFF, Br	Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Jesse		Rivera	Simulating Mechanical Antennas via FDTD Methods"	Greg Carman and Yuanxun Ethan Wang	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Mathias		Ross	Numerical Exploration of Rotating Detonation Rocket Engine Chamber Dynamics	Ann Karagozian	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Stephen	George	Schein	High Fidelity Modeling Techniques for MEMS Resonators	Robert M'Closkey	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Kevin		Schwarm	Real-time laser absorption spectroscopy for controls applications in combustion systems	R. Mitchell Spearrin	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Erfan		Sedighi	Investigation of Interfacial Flow Dynamics and Mass Transfer in Multi-String Heat and Mass Exchangers for Desalination and Cooling Applications	Yongho Ju	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Junjie		Shen	Locomotion Analysis and Control of a Miniature Bipedal Robot	Dennis Hong	Fall 2022
Mechanical and Aerospace Engineering	Mechanical Engineering	Michael		Sheng	Modeling Ferroelectric Materials and Synthetic Jet Actuators	Christopher Lynch and Gregory Carmar	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Rahul		Shenoy	Self-learning Neuromorphic Integrated Circuits for Autonomous Drone Navigation	Yong Chen	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Nathaniel	Jeffrey	Snyder	A Real-Time and Robust Multivariate Estimator for Dynamic Systems with Heavy-Tailed Additive Uncertainties	Jason L. Speyer	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Dezhong		Tong	Thesis Dissertation Title Not Available		Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Han		Wang	Discrete-Time Modeling and Control of Coupled Rectifier-Inverter Circuit Having Insignificant Buffering Capacitors	Tsu-Chin Tsao	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Lifu		Wang	High Frequency Guided Wave Propagation in Layered Media	Ajit Mal	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Kieran		Wolk	Thesis Dissertation Title Not Available	Vijay Dhir	Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Wenzhong		Yan	Printable Mechanical Autonomy	Ankur Mehta and Jonathan Hopkins	Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Yan		Yi	Experimental and Numerical Investigation of Mixed Convection Magnetohydrodynamic (MHD) Flows for Liquid Metal Fusion Blankets	Mohamed Abdou	Summer 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Jingwen		Zhang	Towards Application on Optimization-Based Methods for Motion Planning of Legged Robots	Dennis Hong	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Lionel		Zhang	Human-in-the-loop Teleoperation for Tactile-driven Physical Interactions in Unstructured Environments		Spring 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Ruoda		Zheng	Multiferroic Devices for Cell Manipulation and Acoustic Resonators	Greg P Carman and Abdon E Sepulveda	Winter 2023
Mechanical and Aerospace Engineering	Mechanical Engineering	Taoyuanmin		Zhu	Design of a Highly Dynamic Humanoid Robot	Dennis Hong	Winter 2023