Tentative Technical Electives until Spring 2025

Highlighted course numbers are likely to be given a permanent (non 597) number in the near future.

Fall 23			**Fall 24**	
508	Phase Transformations		508	Phase Transformations
518	Failure analysis		518	Failure analysis
524	Mechanical response of polymers		524	Mechanical response of polymers
531	Quantitative Analysis of Microstructure		531	Quantitative Analysis of Microstructure
548	Deposition processing		548	Deposition Processing
559	Phase Equilibria		559	Phase Equilibria
586	Experimental characterization of advanced composites		586	Experimental characterization of advanced composites
597S	Steels/Commercial Metallurgical processing		556	Fracture of solids
512	Powder processing			
523	Physical ceramics		597MM	Magnetic materials (TBD)
547	Intro to Surface Science		597S	Steels/Commercial Metallurgical processing
550	physical properties of crystals		597PC	polymer and composites processing
589	Archeology of materials		597S	Solid State Materials
597MM	Magnetic Materials		597	Sports Engineering
597	Sports Engineering		597	Rechargeable Batteries
			ME597E	Energetic materials
Spring 24			**Spring 25**	
502	Defects in solids		AAE545	Dynamic mechanical properties
510	Microstructural characterization techniques		502	Defects in solids
525	structure and physical properties of polymers		510	Microstructural characterization techniques
527	Biomaterials		525	structure and physical properties of polymers
555	Deformation mechanisms		527	Biomaterials
567	Polymer synthesis		536	Solidification of castings
576	Corrosion		560	Production of inorganic materials
597AM	Additive manufacturing of materials		562	Soft materials
597K	Kinetics		576	Corrosion
597L	Lean Manufacturing		597AM	Additive manufacturing of materials
570	Computational Modeling of materials		597K	Kinetics
597 SA	Superalloys		597L	Lean Manufacturing
597DD	dislocation dynamics		570	Computational Modeling of materials
517	Hypersonic materials		517	Hypersonic materials
			597DP	Deformation processing