4th Class Power Engineering Existing to New

Course ID	Original Course Name	New Course ID	New Course Name
	New Course and/or Name Change		
PEN3500	Math & Mechanics	PEN3020	Preparatory Math
PEN3505	Science Principles	PEN3021	Elementary Mechanics and Dynamics
		PEN3022	Chemistry and Thermodynamics
PEN3510	Foundations		
NEW		PEN3023	Power Engineering Governance
PEN3515	Safety	PEN3024	Plant and Fire Safety
PEN3520	Environmental Impact	PEN3025	Environmental Impact
PEN3525	Materials & Welding	PEN3026	Material Science and Welding
		PEN3027	Fluid-handling Technology
NEW		PEN3030	Industrial Communication
PEN3530	Boiler Construction	PEN3031	Boiler Designs
NEW		PEN3032	Boiler Systems
PEN3535	Draft, Valves & Gauges		
NEW		PEN3035	Boiler Safety Devices
PEN3540	Boiler Operation		
NEW		PEN3036	Boiler Plant Operation and Management
NEW		PEN3038	In-Plant Water Treatment
PEN3545	Engines & Turbines	PEN3039	Prime Movers and Heat Engines
PEN3550	Pumps	PEN3033	Lubrication and Bearings
		PEN3034	Pumps and Compressors
PEN3555	Electricity	PEN3028	Electrotechnology
PEN3560	Instrumentation	PEN3029	Instrumentation and Controls
PEN3575	System Controls		
		PEN3040	Auxiliary Building Systems
PEN3565	Heating Boilers		
PEN3570	Heating Systems	PEN3043	Environmental and Control Systems
PEN3595	Air Conditioning 2		
PEN3580	Refrigeration 1	PEN3041	Refrigeration
PEN3585	Refrigeration 2		
PEN3590	Air Conditioning 1	PEN3042	Heating, Ventilating and Air Conditioning
PEN3600	Boiler Maintenance	PEN3037	Energy Plant Maintenance
		PEN3044	Industrial Plant Configurations

Note that there was some re-organization of outcomes between courses, resulting in the aligning of CTS courses directly to the SOPEEC Syllabus and curriculum document to allow for maximum flexibility with delivery structures at post-secondary institutions. Outside of the practicum courses (PEN3605 to PEN3620), all other courses will be replaced, with some equivalency between programs.