NOTES: 1: Several modules are suitable for more than one engineering course. Please coordinate with other faculty. Example: Block A can be assigned to any of the first 3 core courses, or distributed within them. 2: Some courses (e.g. Organic Chem or Materials) may be outside of typical ChE departments but usually part of core requirements for Chemical Engineers. The assignments below should be shared across department boundaries. 3: Some courses go together as a group as indicated below and are related to each other 4: it is highly recommended that all engineering graduates complete Block A at the beginning of their ChE education and Block F before graduation	Grouping	Introduction to Chemical Engineering OR Intro to Engineering	Material & Energy Balances	Thermodynamics	Material Science / Corrosion Engineering	Organic / Inorganic_Chemistry	Rate Operations / Kinetics / Reaction	Fluid Flow / Fluid Mechanics	Heat & Mass Transfer	Unit ups & Separation Processes (e.g. Distillation)	Process Control	Unit Ops Lab	Process / Engineering Design
No. Course Title													
ELA 950 Introduction to Process Safety													
ELA 951 Hazard Recognition	А												
ELA 952 Identifying & Minimizing Process Safety Hazards													
ELA 953 An Introduction to Managing Process Safety Hazards													
ELA 954 Introduction to Lab Safety													
ELA 961 Toxicological Hazards													
ELA 962 Chemical Reactivity Hazards	в												
ELA 963 Fire Hazards													
ELA 964 Explosion Hazards													
ELA 965 Source Models	С												
ELA 967 Atmospheric Dispersion	C												
ELA 969 Understanding Hazards & Risk													
ELA 970 Hazards and Risk: What Can Go Wrong?													
ELA 971 Hazards and Risk: Introduction to Pressure Protection	D												
ELA 973 Hazards and Risk: Safeguards Other Than Relief Systems													
ELA 974 Hazards and Risk: Introduction to Hazard Identification and Risk Analysis													
ELA 975 Process Safety Ethics – A Brief Introduction	А												
ELA 980 Risk Review Using Layer of Protection Analysis (LOPA)													
ELA 981 Human Factors in Process Safety													
ELA 982 Managing Lab Process Safety 1													<u> </u>
ELA 983 Hazards and Risk: Hazard Identification and Risk Analysis	E												L
ELA 984 Inherently Safer Designs													
ELA 985 Practical Process Safety 1	E												
ELA 986 Managing Lab Process Safety 2													
ELA 987 Practical Process Safety 2	E												
ELA 988 Damage Mechanisms: Asset Integrity and Reliability													
ELA 989 Runaway Reactor and Overpressure Protection													
ELA 990 Facility Siting													
ELA 991 Role of Inert Gases in Process Safety													
ELA 992 Dust Explosions													
ELA 993 Common Chemicals and Their Major Hazards													<u> </u>
ELA 995 Risk Based Process Safety - Commit to Process Safety				ļ					ļ	ļ		ļ	<b> </b>
ELA 996 Risk Based Process Safety - Manage Risk: Training and Procedures													
ELA 997 Risk Based Process Safety - Manage Risk: Operations	F												
ELA 998 Risk Based Process Safety - Manage Risk: Asset Integrity													
ELA 999 Risk Based Process Safety - Learn from Experience													

