Cairo University, Faculty of Eng., Mechanical Power Eng. Dept.			
Mapping Course LOs to NARS 2018			
Course Title :		Basics of Hydraulic and Pneumatic Systems	
Course Code :		MEP 3001	
Instructor Name :		Associate Professor Mohsen Sayed soliman	
Program(s) that offer the course :		B. Sc. Of Mechanical Power Engineering	
Course LOs		Select NARS competencies statements (numbers) that each LO satisifes well from 2 categories	
	On successful completion of the course,	Competencies for Engineering Graduates	Competencies for Engineering Specializations
1	Recognize and identify different types and applications of practical automatic control systems and control loops.	1- Identify complex engineering problems;	2.2 Plan, manage and carry out designs of mechanical systems
2	Comprehend and follow present and future developments of Hardware and Software Computer Applications in automatic Control Systems.	10. Acquire and apply new knowledge;	
3	Recognize various types and applications of Virtual Lab Techniques to study automatic control systems.	2- Develop appropriate simulation, analyze and interpret data.,	
4	Apply educational & practical training Virtual Lab to understand basics and essentials of Hydraulic and	4-Utilize contemporary technologies	
5	Understand basic concepts and definitions of Hydraulic and Pneumatic Systems.	10. Acquire and apply new knowledge;	
6	Investigate various components, essential parts and accessories of Hydraulic and Pneumatic Circuits.	10. Acquire and apply new knowledge;	
7	Understand hydraulic symbols and schematics used for drawing hydraulic and Pneumatic circuits.		2.3 Select conventional mech. equipment according to required performance.
8	Apply standards and practice reading symbol-schematics of hydraulic and Pneumatic circuits.		2.4 Adopt suitable national and international standards and codes;
9	Perform Evaluation and function analysis to select proper parts for circuits with optimum performance.		2.1 Model, analyze and design physical systems applicable to the specific discipline
10	Examine Maintenance and Troubleshooting of Hydraulic and Pneumatic Systems.		2.3 Select conventional mech. equipment according to required performance.