modified on 14 June 2019

CP502 Course Information (June – Oct 2019)

– a technical elective offered by the Department of C&P Engineering

Course Venue:	Computer Room at the Department of Chemical and Process Engineering
Time:	9.40 am to 11.00 am on Tuesdays and 9.00 am to 11.00 am on Fridays starting from 11 June 2019
Coordinator and Lecturer:	Prof. R. Shanthini
Evaluation Panel:	Prof. R. Shanthini, Ms. A.M. Wasantha Menike and Ms. Thushari Ariyaratne
Course Website:	http://rshanthini.com/lecturing_on (under construction) and also https://feels.pdn.ac.lk/course/view.php?id=36
Contact Email:	admin@rshanthini.com
Contact Phone Number:	071-53 268 35

Intended Learning Outcomes (ILOs):

ILO1: Formulate and analyse viscous incompressible flow starting from first principles

ILO2: Analyse compressible subsonic and supersonic flow, with and without normal shocks, of an ideal gas starting from first principles

ILO3: Demonstrate the ability to self-learn and analyse incompressible viscous, non-isothermal, non-Newtonian flow of a complex flow system using MATLAB/COMSOL software

Continues on page 2

Course Content:

CP502 Advanced Fluid Mechanics (3 credits) Pre-requisites: CE202			
Course description	Time allocated / hours		
	Lectures	Tutorial	Projects
Flow of Viscous Fluids and Boundary Layer Flow	10	03	
Compressible Fluid Flow	10	02	
Computational Fluid Dynamics (CFD) using MATLAB/COMSOL software	05		30
TOTAL	**25**	**05**	**15 eq. hours**

Method of Assessment:

Method of Assessment	Percentage marks
Continuous Assessments	50
CFD Project	25
Mid-semester Examinations	25
End-semester Examinations	50