Modelling of Engineering Systems

Week	Subject	Lecture Notes	Lecture Slides	Tutorials	Python Simulations
Week 1	Introduction & Python Installation	~	Lecture 1	~	~
Week 2	Mechanical and Electrical systems	Lecture 2	Lecture 2	Tutorial 1	Mass Spring Dampener
Week 3	Linearisation and Laplace 1	Lecture 3	Lecture 3	Tutorial 2	Mass Spring Dampener System
Week 4	Laplace 2 and Transfer Function	Lecture 4	Lecture 4	Tutorial 3	Mass-Dampener System
Week 5	State space and Time Responses 1	Lecture 5	Lecture 5	Tutorial 4	Statespace
Week 6	~	~	~	~	~
Week 7	Time Responses 2 and Simultaneous Linear Equations 1	Lecture 6	Lecture 6	Tutorial 5	Mass-Spring Dampener
Week 8	Simultaneous Linear Equations 2 and 3	Lecture 7	Lecture 7	Tutorial 6	Gauss Elim
Week 9	Numerical methods 2 and simulation	Lecture 8	Lecture 8	Tutorial 7	~
Week 10	Finite Difference Method and Shooting Method	Lecture 9	Lecture 9	Tutorial 8	Q4 Solution
		Lecture 10 (1)			
Week 11	ODEs and PDEs	Lecture 10 (2)	Lecture 10	Tutorial 10	~