

MSE 489, *Materials Selection for Sustainability*, Fall 2022

Prof. John R. Abelson

Date	Topic
Aug 23	Course introduction; Discussion of “Wooden Fences”
25	Ch. 1 in our textbook: Ashby, <u>Materials and the Environment</u> , 3 rd edition
30	Ch. 2
Sept 1	DECC 2050 Calculator (<i>small groups in class</i>)
6	Problem definition for the term project
8	Ch. 9
13	Hybrid and shaped materials
15	Zoom class meeting: Term project groups, Deliverable 1: Goal, Objectives, Constraints
20	CES Software: <i>Guest presentation by Bridget Ogwezi of Ansys</i>
22	Ch. 3
27	Buildings: Heat flow and air exchange
29	ZEROS building energy simulation (<i>small groups in class</i>)
Oct 4	Ch. 4
6	Ch. 5
11	Ch. 6
13	Zoom class meeting: Term project groups, Deliverable 2: Equations, Data, Tradeoffs
18	Intermittency of renewable power; HOMER simulations
20	Economics and policy
25	Ch. 7
27	Ch. 8
Nov 1	Ch. 10
3	Ch. 11
8	<i>NO CLASS – Election Day</i>
10	Zoom class meeting: Term project groups, Deliverable 3: Analysis and Recommendations
15	Ch. 12
17	Ch. 13
	<i>Thanksgiving break</i>
29	Ch. 14
Dec 1	Project presentations day 1
6	Project presentations day 2
8	<i>Term over</i> Term project due