

**ESSO352 Sustainability: challenges and responses**  
<http://sustainability.seeds4c.org>

IES ABROAD Barcelona. Room: 2.5 (17:45-19:20h)  
 Prof.: Xavier de Pedro, Ph.D. - [sustainability@seeds4c.org](mailto:sustainability@seeds4c.org)

Date	S #	Topic	Reader Session	Comments
January 17, 2017	1	BASIC KEY CONCEPTS	What IS Sustainability, anyway?	Course introduction. Register to its website (due)
January 19, 2017	2		Systems Thinking: A Primer	BEFORE CLASS: register to the the course website: <a href="http://sustainability.seeds4c.org">http://sustainability.seeds4c.org</a> . Bring laptops
January 24, 2017	3		Design, Re-design and New Industrial Paradigms	Bring laptops to class.
January 31, 2017	4	METHODOLOGIES	<b>Guest Speaker: Tarpuna Coop</b> , about « <i>Agenda 21</i> » Barcelona and more.	Bring Laptops to class.
January 26, 2017	5		Sustainability Action Plan for IES Barcelona (related to the final paper)	Bring laptops to class. Deadline to choose actions
February 2, 2017	6	ANALYSIS OF SOME CHALLENGES	Policy, Regulations, Incentives and Voluntary Programs for Sustainability	
February 7, 2017	7		The Human Factor: Demographics and Social Trends	
February 9, 2017	8		Agriculture: Our Relationship with the Land	
February 14, 2017	9		Forest, fisheries and disappearing species	
February 16, 2017	10		Environmental Systems Social Systems and Human Health	
February 21, 2017	11		Climate Change	
February 23, 2017	12		<b>Mid-term Exam</b>	Open notes, but time- & space-limited exam.
February 28, 2017	13	ANALYSIS OF SOME RESPONSES	Local Community Networks	
March 2, 2017	14		Urban Planning, Architecture and Transportation	
March 7, 2017	15		<b>Class on site: "Can Masdeu"</b> . 17:45-21h	Visit a squatted farm house. Check required reading.
March 9, 2017	16		Permaculture Ethics & Design Principles	
March 14, 2017	17		Free/Libre Open Source Software (FLOSS) and Hardware	
March 16, 2017	18		Designing a sustainable system for Human Knowledge	
March 17, 2017	18b		<b>discoverIES: Social Organic Farming at Llinars del Vallès. «Huerto Social»</b>	Mandatory attendance trip on a Friday out of the city.
March 21, 2017	19		<b>Class on site - Clean Technology and Design</b>	
March 28, 2017	20		<i>The Wisdom and Virtue of Peer-based Crowds</i>	
March 30, 2017	21		<i>Ecological economics</i>	
April 4, 2017	22	<b>Presentation on current topics + Peer Review</b>		
April 6, 2017	23	Energy: Trends, Mega-trends and their Implications		
April 18, 2017	24	Business, Biomimicry and Sustainable Development	Midnight after class: deadline for group final papers	
April 20, 2017	25	<b>Final Exam</b>	Open notes, but time- & space-limited exam.	

# FINAL PAPER: suggested TIMESHEET

SESSIONS:

	s1	s2	s3	s4	s5	s6	s7	s8	s9	s10	s11	s12	s13	s14	s15	s16	s17	s18	s18b	s19	s20	s21	s22	s23	s24		s25	
What is Sustainability																												
Systems Thinking																												
Redesign Industry																												
Guest Speaker: Agenda_21																												
SAP for IES BCN																												
Policy Reg. Incent. Volunt. Progs																												
Demographics Social Trends																												
Agriculture																												
Forests Fisheries Dissap Spp																												
Systems and Health																												
Climate Change																												
Mid-Term Exam																												
Local Community Networks																												
Urb. Planning, Architecture & Transportation																												
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FLOSS																												
Sust. Design 4 human knowledge																												
DiscoverIES: Social Organic Farming																												
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Wisdom and Virtue of P2P Crowds																												
Ecological Economics																												
Presentation on current topics																												
Energy																												
Business&Biomim&Sustain. Development																												
FINAL PAPER DEADLINE (wiki pages locked)																												
Final Exam																												
0. Summary & Keywords																												
1. What is the action				X	X											X												
1.1. Similar actions form previous semesters						X	X																					
1.2. Why this or a similar action didn't succeed in previous semesters?							X	X	X																			
1.3. SWOT Analysis										X	X			X														
1.4. Feedback loops													X															
1.5. Advertising									X	X						X												
2. Why this action makes things more sustainable?														X														
2.1. Potential Costs														X														
3. How will you implement it									X							X												
3.1. Prototype (or Proof of Concept)										X	X																	
3.2. "Cradle to Cradle" design																	X											
3.3. Flyers?											X			X														
3.4. Incentives										X																		
3.5. Relationship with the Other initiatives being implemented														X														
3.6. How will this action be sustained when you are not here?																												
3.7. Comparison to similar actions form previous semesters								X	X						X													
4. Time-sheet / Chronogram										X					X													
4.1. Who will do what											X																	
4.2. What has been done this semester?																												
4.3. What needs to be done to repeat the action in the future?											X																	
5. Document format																												
6. Bibliography																X												
7. Other References																X												
8. Annexes																												
8.1. Copyright license of your report																												
8.2. What did you learn and what did you incorporate from the feedback received?																	X											
8.3. Acknowledgements																												
8.4. Students involved in this action					X																							