

## EMSC 470W – CAUSE 2013 – THE "ENERGY" NEW DEAL - DOWN-UNDER

### Beginning and End of Course/Travel

**Begin:** Auckland Airport, New Zealand, 8am Tuesday May 7, 2013 (at McDonalds – to the left as you leave customs/immigration and enter the arrivals concourse.)

**End:** Auckland Airport, New Zealand, 3pm Sunday May 19, 2013

### Contacts

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### Clothing and Baggage

From the evolving itinerary, you will get a feel for the kinds of activities we will undertake. Remember that we will be actively walking and in transit for much of the time, so wear comfortable footwear and clothes – perhaps not much different to what you wear on campus. You will need closed toed shoes and covered arms for at least one of the tours. New Zealand will be in fall in May so bring layers and raingear. Long pants, and polypro/fleece would be appropriate. Boots or closed toed shoes are necessary. The sun is strong this far south in the southern hemisphere so sunscreen and a hat is useful.

We will be spending our overnights in hostels, usually with dormitory accommodation. The only secure location for baggage and valuables will be in the vehicles or on your person. A fanny-pack, or money belt is useful for your money and travel documents. I usually keep my passport with my wallet in my (cargo) pant pocket – for the duration. It is sometimes useful to keep a **photocopy of your passport** in your baggage or email yourself a scan of the front page and keep it on your webmail [on our CAUSE 2000, two students, on two separate occasions lost their wallets containing all their ID – one was lucky to recover it, one did not].

Our group of 16 will be traveling in two 12-seater vans. So there will be extra capacity for baggage. It is preferable to pack in soft bags, as these pack most easily in vehicles. Remember sunscreen, hat (sun), and sunglasses, if needed and raingear (jacket).

I plan to wear what I wear on campus every day - light hiking boots, shirt and fleece for most of the trip, and to have an extra fleece layer and waterproof/windproof shell. Swimwear will be fine (there are geothermal pools) and you should bring a towel as the hostels don't supply them. If you are not checking your bag on the international flight remember that liquids in your toiletries (sunscreen, toothpaste, shampoo) should be in small containers and available for inspection.

### Passport

You **MUST** have a valid passport. If you are traveling on a US passport, you will not need a visa for New Zealand. If you plan to travel through Australia and to stay, you will need to secure an online Electronic Travel Authorization (ETA ~\$20). See notes above about keeping your passport secure.

### Your Out-of-pocket Expenses

We will pay for your accommodation (hostel fees), and for land travel by 12-seater vans. You will need cash for your meals and other incidentals. Most hostels will have self-catering facilities, and you will have the opportunity to pool resources to group-cook, should you wish. You will purchase your own air travel.

### Miscellaneous

Remember to bring some method (small notebook or tablet (electronic or paper)) to keep a journal. One that fits into your pocket or pack may be most convenient. Bring a camera or smartphone for photos. A smartphone with or without Skype/Facetime will allow you to communicate via voice/video using Wi-Fi. You can check out roaming plans for Wi-Fi before you leave. Wi-Fi is available at coffee shops, restaurants and hostels but is neither as ubiquitous nor as cheap as in the US. Remember to keep any phone on airplane/non-roaming mode to avoid disastrous (\$100s-\$1000s) roaming charges. An ATM card or Visa/Mastercard/Amex/Diners will likely be the best method to transport cash. You may wish to notify your credit card company that you will travel to New Zealand as sometimes they suspend cards with suspicious activity – this is easily rectified with an email or logon to your account website after the fact. If you have any electrical gear, you will need a converter plug to charge it. The voltage is 230V and you'll need a plug (definitely) and voltage converter if your recharger is not dual 110/230V (many are).

If you bring a pocket knife (I recommend it. You can eat quite well, and inexpensively, on sandwiches, fruit, etc.) then remember to pack it in your *checked* baggage.

**Hostel destinations map:** <http://goo.gl/maps/JhYss>

**Hostels:** <http://www.yha.co.nz/> [scroll over map]

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		<b>Activity</b>		<b>Hostels</b>
May 5	Su	<p>Emergency Contact: <a href="mailto:elsworth@psu.edu">elsworth@psu.edu</a>;                      +1.814.XXX.XXX (24/7 – NZ is 16h ahead of EST)                      Note: Contact details of those below are for instructor use only. Please respect their privacy and do not contact.</p>	<b>Depart</b>	
6	M	<b>In transit</b>	<b>In transit</b>	
7	Tu	<p><b>Course Begins: Auckland Airport, NZ 8a</b>                      8a – Depart Auckland Airport                      10a Genesis Energy – Huntly Power Station (~2h)</p>	Rotowaro Mine – Mark Paris – Manager Drive-by only <a href="http://www.solidenergy.co.nz/coal/operations/index.html">http://www.solidenergy.co.nz/coal/operations/index.html</a>	Raglan
8	W	Te Uku Windfarm – nr. Raglan 9.30a at site. Sturdy shoes, covered arms/legs and warm raingear.	Travel to Taupo Via Waikato River and Arapuni Dam	Taupo
9	Th	Nga Awa Purua plant at Rotokawa ~900a at Taupo YHA	GNS Taupo ~2p at GNS Taupo?	Taupo
10	F	Travel to Palmerston North	Tararua Wind Farm NZ	Whanganui
11	Sa	Travel to New Plymouth	Unguided - Taranaki oilfield Unguided - Methanex plant Unguided – 600 MW oil fired plant	New Plymouth
12	Su	Travel to Wellington	Wellington	Wellington
13	M	Wellington – meet with government	Wellington – meet with government	Wellington, NI
14	Tu	8.25a Ferry to South Island	Picton-Westport (~3.5h)	Westport, SI
15	W	Stockton Mine – Westport 10a Westport for 6h	Stockton Mine – Westport Alpine Fault	Westport, SI
16	Th	Travel to Christchurch (~4h)	Christchurch – self-guide Anatomy of an Earthquake	Christchurch, SI
17	F	Christchurch to Picton (~4.5h)	1.10p Ferry to Wellington Wellington to National Park (~4h)	National Park, NI
18	Sa	National Park to Auckland (~4h)	Auckland	Auckland
19	Su	Auckland	<b>Course Ends: Auckland Airport, NZ 3p</b>	

## **PARTICIPANT DELIVERABLES**

### **Pre-Trip**

1. Review the Itinerary, inclusive of hotlinks, as an overview.
2. Complete background research for some of the venues (as assigned in red). In locales where we have a guide, this is less crucial. In locales where we do not, you should have enough information to be a resource for your peers – What do they need to know about the locale? How is it relevant to the theme of our course? Is there an historical significance or context? Where is it (geographically)? And in some cases, is there someone we should contact locally to find out more (do we have their phone number)? Is there something related that we should see, either in addition or in preference?
3. With our overnight accommodations now-near-finalized, make your final plans for your group or individual research activities. Particularly note the days that are loosely scheduled. We have the flexibility to accommodate your proposed interviews, filming, photography, and various forms of data gathering. All we need to know is... what... when... why... and where.

We may also split the party, if desired (into a maximum of 2 groups, constrained only by the number of vehicles (two), and the reality that our nightly destinations are fixed). Some potential activities are probably apparent from the itinerary, and others will emerge. As ideas emerge, your team needs to propose these activities to the group.

### **During-Trip**

1. Keep a journal of your activities and observations, related both to your research and to our daily activities. We'll ask to review these journals in September. The journal that you keep as you travel will be adequate for this purpose, or you may choose to submit something else. Bring a notebook/tablet (paper or electronic) that you can comfortably carry in a pocket or pack.
2. On your assigned day:
  - a. Complete a brief electronic dispatch as a summary of that day's activities – if feasible we'll arrange a blog page – it should be both text and photos. We will post these to the class web-page upon our return. See some examples for prior CAUSE trips at: <http://www.ems.psu.edu/~elsworth/courses/cause2003/>
  - b. Be prepared to inform your colleagues of all you can discover about the following assignments:

Tu 7 <sup>th</sup>	Josh	Rotowaro Mine and fuel supplies to Huntly power station
We 8 <sup>th</sup>	Carly	Coalbed methane(CBM)/coalseam gas(CSG) in New Zealand
Th 9 <sup>th</sup>	Jake	Hydropower on the Waikato River
Fr 10 <sup>th</sup>	Erik	Cogeneration and combined heat and power uses in New Zealand
Sa 11 <sup>th</sup>	Katie	Taranaki/Stratford onshore oil field
Su 12 <sup>th</sup>	Alyssa	Offshore oil/gas and Methanex gas-to-liquids plant
Mo 13 <sup>th</sup>	Caleb	Government initiatives for carbon reduction in New Zealand
Tu 14 <sup>th</sup>	Alex	Cook Strait tidal power potential and plans
We 15 <sup>th</sup>	Sri	Greymouth coal mine disaster (2010)
Th 16 <sup>th</sup>	Gabrielle	Hydropower potential and utilization on the South Island
Fr 17 <sup>th</sup>	Emily	Christchurch earthquakes – science, engineering and society
Sa 18 <sup>th</sup>	John-Paul	Accommodation of the Hydrogen Economy in New Zealand

### **Post-Trip (By July 1)**

1. Submit your final electronic dispatch for posting.
2. Submit your journal.
3. Update your research proposal (Objectives, Method, & Expected Results) in light of the impressions, knowledge, footage, and data you have gathered. Update your proposal with tasks already completed, and provide a plan for your individual and group activities for the Fall semester.

### **Post-Trip (By September 1)**

Upload your desired syllabus for the Fall semester, to the prescribed drop-box on the Angel website.

### **Contact Details**

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