

# Draft Lecture and Tutorial Plan for CIDER 2015

version 2015/05/21

## Week 2 (first lecture week) – July 6-10

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- July 6 – L0. **Plank** – Introduction to Science Program  
L1. **Bercovici** – - solid earth dynamics, connections to volatiles & climate  
L2. **Chamberlain** – climate dynamics, connections to the solid earth  
T1. **Montesi** - Geodynamics Tutorial
- July 7 - L3. **Raymo** – sea level, climate and dynamic topography  
L4. **MacLennan** – volcanoes, ice and ocean loading/unloading, CO<sub>2</sub>  
T2. **James** – Weathering Tutorial
- July 8 - L5. **Pagani** – paleoclimate models and sensitivity  
L6. **J. Davis** – what is sea level? variations in space & time  
T3. **Malinverno** – Marine Organic Carbon Tutorial
- July 9 - L7. **Hirschmann** – melting, deep Earth water and carbon  
L8. **Faul** – rheology (mantle deformation)  
T4. **Wallace** - Petrology Tutorial ABS/MELTS/SOLEX
- July 10 - L9. **J. Davis** – measuring solid Earth deformation  
L10. **Teagle** – oceanic crust - fluid/volatile interaction, CO<sub>2</sub> storage  
T5. **Faul/McCarthy** - Rheology Tutorial

## Week 3 (second lecture week) – July 13 - 17

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- July 13 - L11. **van der Wal** – sea level, GIA, and loading, lateral variability  
L12. **Wallace** – CO<sub>2</sub> and H<sub>2</sub>O from subduction zone to volcano  
T6. **Pollitz** -- Geodynamics Tutorial -- mantle dynamics & postseismic deformation
- July 14 - L13. **Moucha** – mantle flow and modeling of surface deformation  
L14. **Derry** - Carbon cycle  
T7. **Fischer** Volcanology Tutorial -- volcanic gas fluxes & measuring CO<sub>2</sub>
- July 15 - L15. **TBD** – climate-tectonics-landscape  
L16. **Wiens** – seismic imaging of Earth structure, applications to volcanic arc and glacial problems  
T8. **Sauber/Freymueller** Geodesy Tutorial -geodesy data products
- July 16 - L17. **McCarthy** – rheology (master curves, rocks and maybe ice) -  
L18. **TBD - Langmuir ?** – ocean/glacial loading drives volcanism  
T9. **Wiens** -- Seismology Tutorial
- July 17 - L19. **Sauber** – loading, crustal deformation, earthquakes  
L20. **Fischer** – Magmatic and tectonic gas fluxes to the atmosphere  
T10. Discussion of projects