**Tentative Course Schedule: EES 240 Spring 2013**

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| Date | Topic | Suggested Reading (Marshak and van der Pluijm) | Lab |
| January 8 | Introduction | Chapter 1 | Brunton, map quad |
| January 10 | Plate tectonics review | Chapter 14 |
|  |  |  |  |
| January 15 | Brittle deformation, stress | 6.1-6.3; 3.1-3.6 | Topo Maps |
| January 17 | Stress and Joints 1 | 3.1-3.6; 6.4-6.8 |
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| January 22 | Joints 2 | 7.1-7.3; 7.6 | Rule of Vs, 3-pt problems |
| January 24 | Joints 3 | 7.4-7.5 |
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| January 29 | Mohr derivation 1 | 3.7 | Field Trip to Old Hickory Blvd |
| January 31 | Mohr derivation 2 | 3.8-3.11 |
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| February 5 | Mohr circles 1 | 6.9; 7.5; 7.7 | Mohr Circles |
| February 7 | Mohr 2 – hydraulic fracturing | Same as above |
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| February 12 | Faults 1 | 8.1-8.4 | Field trip to 840 |
| February 14 | Faults 2 | 8.5-8.8 |
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| February 19 | Fault systems and rocks | 8.3; Ex from Ch 16, 18, 19 | Cross Sections |
| February 21 | Maps with faults |  |
| **Take home exam 1 due Friday, February 22, 3 pm** |
| February 26 | Ductile deformation | 4.1-4.7 | Big VA Cross section 1 |
| February 28 | Ductile processes | 9.1-9.5 |
| SPRING BREAK MARCH 4 – 8  |
| March 12 | Folds 1 | 4.7-4.12; 10.1-10.4 | Big VA Cross section 2 |
| March 14 | Folds 2 | 10.5-10.10 |
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| March 19 | Rheology 1 | 5.1-5.3 | Stereonets |
| March 21 | Rheology 2 | 5.4-5.6 |
| **Field trip: Sunday March 24, 2013 (8 am – 8 pm)** |
| March 26 | Strain  | TBA | Field trip analysis |
| March 28 | Strain analysis |  |
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| April 2 | Isostasy 1 | 14.7, Molnar 1990 | Isostasy |
| April 4 | Isostasy 2 |  |
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| April 9 | Climate, tectonics, erosion 1 | Molnar 2009 | Final project |
| April 11 | Climate, tectonics, erosion 2 | 22.2, Montgomery 2001 |
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| April 16 | Climate, tectonics, erosion 3 | Stewart 2008 | Final project |
| April 18 | Final presentations |  |
| **Take home exam 2 due at regular final exam time** |