**CE 397 Flood Forecasting, Spring 2015**

**Review for First Exam**

The material is classified according to ***Bloom’s Taxonomy of Educational Objectives***:

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| **Level** | **Title** | **Meaning** |
| 1 | Knowledge | Definitions, facts, formulas |
| 2 | Comprehension | Explanation of definitions, formulas, problem solving procedures |
| 3 | Application | Know how to use a formula or procedure to solve simple problems |
| 4 | Analysis | Break down a complex problem and solve by steps |
| 5 | Synthesis | Derivation of basic formulas, design of new systems |
| 6 | Evaluation | Advantages and limitations of alternative approaches |

**Lectures**

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| **Lecture** | **Topic** | **Leve**l |
| 1 | Introduction to National Flood Interoperability Experiment | 5 |
| 2 | Update on NFIE to Subcommittee on Spatial Water Data | 2 |
| 3 | NFIE Concepts and Definitions. Channel topology | 4 |
| 4 | NFIE-Geo for Travis County (Exercise 1) | 5 |
| 5 | Halloween Flood in Austin | 3 |
| 6 | Flood impact assessment (North Carolina) | 3 |
| 7 | NFIE-Hydro (Fernando Salas and Marcelo Somos) | 4 |
| 8 | Soil moisture mapping (Gonzalo Espinoza) | 2 |
| 9 | River Channels | 3 |
| 10 | NFIE-Hydro for Travis County (Exercise 2) | 4 |
| 11 | Standards for sharing information (David Arctur) | 5 |
| 12 | Water resources data exchange (David Arctur) | 2 |
| 13 | Flood inundation mapping (Chris Franklin and Bryan Chastain) | 3 |
| 14 | Geonet (Harish Sangireddy, Anna Kladzyk, Richard Carothers) | 3 |

**Readings**

|  |  |
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| **Topic** | **Level** |
| Paper by Maidment on NFIE Conceptual Framework | 5 |
| Data Model for River Channels by Kim, Muste and Merwade | 3 |
| OGC Standard for WaterML | 4 |
| Hydrology profile for the Sensor Observation Service | 3 |

You may bring a review sheet 8/5 x 11 inches with you with anything on it on both sides of the paper that you want.