

Syllabus

CIS 4930/6930 Special Topic, Context-Aware Computing and Context-Based Systems Fall 2012

1. **Catalog description** – Modeling and system supports for context-aware computing paradigm in distributed systems (3 credit hours).
2. **Pre-requisites** – COP 4600 Operating Systems
3. **Course objectives** – Study of the design and implementation issues for context-aware applications and context-based systems in web environment
4. **Instructor** – Professor Randy Chow, Room: CSE 348, Phone: 505-1582, e-mail: chow@cise.ufl.edu.
5. **Teaching assistant** – none
6. **Class time and location** – Tuesday periods 8 and 9, Thursday period 9, CSE 119
7. **Textbook or reading list**
 - “Toward a Better Understanding of Context and Context-Awareness,” Anind K. Dey and Gregory D. Abowd
 - “Context-Aware Computing Applications”, Bill Schilit, Norman Adams, and Roy Want
 - “Context-Awareness: Come Compelling Applications,” Peter Brown, Winslow Burleson, Mik Lamming, Odd-Wiking Rahlff, Guy Romano, Jean Schiltz, Dave Snowden
 - “Seeking a Foundation for Context-Aware Computing,” Paul Dourish
 - “A Context Modeling Survey”, Thomas Strang and Claudia Linnhoff-Popien
 - “Tangible Bits: Towards Seamless Interfaces between People, Bits and Atoms,” Hirishi Ishli and Brygg Ullmer
 - “An Ontology-based Context Model in Intelligent Environment,” Tao Gu, Xiao Hang Wang, Hung Keng Pung, da Qing Zhang
 - “Ontology-based Context Modeling and Reasoning using OWL,” Xiao Hang Wang, Tao Gu, da Qing Zhang, Hung Keng Pung
 - “An Infrastructure for Context-Awareness based on First Order Logic,” Anand Ranganathan and Roy Campbell
 - “Theoretical Underpinnings of Situation Awareness: A Critical Review,” Mica R. Endsley
 - “Autonomic Computing: An Overview,” Manish Parashar and Salim Hariri
 - “Gray Networking,” Piyush Harsh, Randy Chow, Richard Newman
8. **Course Outline (10 Power-Point files)**
 - a. (2 classes) Motivation of the context-aware computing paradigm
 - b. (3 classes) Context applications
 - c. (3 classes) Context definitions
 - d. (4 classes) Context modeling
 - e. (5 classes) Infrastructure and tool kits
 - f. (5 classes) System architecture and implementation issues
 - g. (5 classes) First and Second order logic
 - h. (5 classes) Situation awareness
 - i. (3 classes) Autonomic computing
 - j. (3 classes) Brain-inspired computing
 - k. (4 classes) Project presentation
9. **Grading**
 - Midterm project – 40%

- Term project – 50%
- Classroom participation – 10%

10. Grading Scale – grades are to be curved.

11. Project submission and late policies – see project description.

12. Honesty Policy – All students admitted to the University of Florida have signed a statement of academic honesty committing them to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

13. Accommodation for Students with Disabilities – Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

14. UF Counseling Services – Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling.
- SHCC mental Health, Student Health Care Center, 392-1171, Personal and Counseling.
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

15. Software Use – All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.