

## BLM5151 Semantic Web – Fall 2016

**Instructor:** Dr. Mehmet Aktaş  
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**Office Hours:** By appointment (please e-mail me for times)

**Text Book:** Semantic Web Primer, Grigoris Antoniou, F.van Harmelen, 2<sup>nd</sup> Edition, Hardcover, ISBN-10:0-262-01210-3, ISBN-13:978-0-262-01210-2 link: [www.semanticwebprimer.org](http://www.semanticwebprimer.org)

**Course Description:** This is an introduction course to the ideas and technologies underlying the “Semantic Web”. The course will take as a starting point the World Wide Web Consortium (W3C) vision, where “The Semantic Web is an extension of the current web in which information is well-defined meaning, better enabling computers and people to work in cooperation.” (Tim Berners-Lee) and will investigate the series of technologies in use and under development to achieve this vision, as well as sample applications of these technologies. Topics will include but not limited to metadata standards, the design of various Semantic Web languages (such as RDF), the role of ontologies and how to develop them, integration heterogeneous data sources, and issues in developing semantic-aware applications.

**Lecture hours:** Monday 13:30 – 16:00 (D107)

### Course Outline (tentative):

1. Course Introduction
2. Chapter 1. The Semantic Web Vision
3. Chapter 2. Structured Web Documents in XML
4. Chapter 3. Structured Web Documents in RDF
5. Chapter 4. Web Ontology Language: OWL
6. Chapter 5. Logic and Interface: Rules
7. Chapter 6. Applications
8. Chapter 7. Ontology Engineering

### Grading (tentative):

Attendance: 5%  
Midterm: 20%  
Homework(s): 15%  
Research Project: 30%  
Final Exam or Term Project: 30%

**Academic Integrity:** Cheating and disruptive talking in class will not be tolerated. Any kind of cheating and plagiarism will be severely penalized. On the other hand, asking and responding to questions in class is strongly encouraged.