# CSCI 4300: Web Programming

**Fall 2016**

## Project 5: Semantic Web Ontology Development & Querying

Due: Oct 12 (11:59 pm)

In this project you will need to identify concepts and relationships in an interesting domain of your choice (antibiotics, mental health, presidential election etc.) and develop an ontology. Check existing ontologies or databases and explore import options. Otherwise read some relevant articles and come up with a list of concepts such as different types of antibiotics, mental diseases, nominees etc (you can use Wikipedia). Your ontology needs to have at least 50 concepts organized into a taxonomy and at least 100 properties (or relationships).

In the second phase you will need to develop 3 semantic association queries in SPARQL to find interesting relations or patterns in your ontology; so design your ontology accordingly.

**Programming language/environment:** Protégé, which is a [free](http://protege.stanford.edu/download/download.html), [open source](http://www.mozilla.org/MPL/MPL-1.1.html) ontology editor and knowledge-base framework (http://protege.stanford.edu/).

**What to submit:** Please post your ontology (RDF(S) or OWL) and 3 semantic association queries, query results and a brief description at ELC.

Do not place your solution on a public web site. Submit your own work and follow the course misconduct policy.

## How to Submit:

Submit your ".zip" file using ELC. Only team leaders need to make a submission. **Every student needs to submit a peer-evaluation form within 24 hours of the project submission deadline**.