Homework 5: Course Scheduling as a CSP

Recall that when discussing on-line search algorithms, we used the course scheduling problem as a running example. For this assignment, you are asked to re-envision the course scheduling problem as a constraint satisfaction problem, and discussing whether a CSP approach to scheduling has significant advantages or disadvantages over the other approaches we have discussed.

Write a short paper (2-3 pages) that describes how this would be done and examines these advantages and disadvantages. Issues that you will want to touch on include what is required for a problem to be suitable for representation as a CSP, as well as then describing in detail how the course scheduling problem in particular would be specified as a CSP. You will also want to discuss the variety of constraints that might be applicable to this problem. If you make any simplifying assumptions about how course scheduling works, be explicit about them, including whether they are assumptions necessary or helpful for a search-based approach as well. Illustrative examples will likely be helpful.