

# Course Policies – CS585-002/685-004

## Fall 2016

### Digital Assets at Scale

## 1. Introduction

This course will cover the principles and development of archives of digital assets via the “crawler” application, with particular emphasis on scraping, crawling, ranking, search, and what it means to “go to scale.” The course will provide an overview, examples of challenges and solutions, and experience with current implementation practices and prototypes. This course will meet on Tuesdays and Thursdays at 2:00pm in the Ralph G. Anderson building (RGAN) – Room 207.

### 1.1 Professor

The professor for this course is Dr. Brent Seales (<http://dmn.netlab.uky.edu/~seales>). The course homepage is <http://dmn.netlab.uky.edu/~seales/cs585.html>. Office hours: 10-12 T/R. Office location: 102G Marksbury Building (<http://ukcc.uky.edu/cgi-bin/dynamo?maps.391+campus+0633>). Office phone: (859) 257-3961.

### 1.2 Course Materials

Course materials (assignments, calendar entries, additional readings, other information) will be available online initially on the course web page, and then primarily through the University of Kentucky’s Canvas system: <https://www.uky.edu/canvas/>. You are responsible for obtaining copies of the papers and excerpts we will read for the course. Full references for these readings are linked in the syllabus, and all are available on-line digitally.

## 2. Preparation and Expectations

As a student in this class you should be prepared with structured programming experience, a solid understanding of data structures, and knowledge of basic computer systems concepts. You should be comfortable with algebra, calculus, and have a working understanding of linear algebra. My learning outcomes for every student in the course:

- Students will understand the design and architecture of a typical web crawler;
- Students will know specific issues that play a role in crawler and scraper implementation;
- Students will understand a working definition of digital assets and how they are managed and organized;
- Students will understand the issues surrounding the storage, ranking, and search of digital assets;
- Students will be able to demonstrate practical experience gained from having completed several small to medium-sized projects dealing with the crawling, storing, ranking, and searching of digital assets.

In addition, students will gain experience working in teams and writing, testing, and reviewing prototype computer code.

## 3. Grading and Assignment Policies

Your grade in the course will be determined by your in-class participation, your performance on project assignments, two in-class quizzes, and homework assignments. The contribution of each component to your grade is as follows:

<i>Weighting of Components</i>		<i>Final Course Grade</i>	
In class participation:	10%	90-100	<b>A</b>
Quizzes:	20%	80-89	<b>B</b>
Lab Books:	20%	70-79	<b>C</b>
Individual Homework:	30%	60-69	<b>D</b>
Group Homework:	20%	0-59	<b>E</b>

**In class participation:** There are about 30 class meetings: you are required to prepare for each class by reading the assigned excerpts, taking notes, and being ready to engage in discussion. Attendance will be noted as part of your participation grade. If you miss class you must provide appropriate documentation for *any* excused absence. Appropriate documentation is defined as a “Tier 2” or “Tier 3” document as defined by the University Health Service:

<http://ukhealthcare.uky.edu/uhs/student-health/attendance/>

“No documentation” or inadequate documentation means the absence will be unexcused. If you miss class for a legitimate unforeseen reason (e.g., illness, death in the immediate family), please contact the instructor as soon as possible after your absence and provide documentation. If you know in advance you will miss class for any reason, inform the instructor as soon as you know.

**Quizzes:** There will be two quizzes, with specific dates noted on the syllabus.

**Lab Books:** Each week you will submit your lab notes, which must include written evidence that you have completed the regularly assigned readings (noted on the syllabus) and are working on the design and implementation of your homework assignments.

**Individual Homework:** There will be five small to medium-sized homework assignments, usually requiring you to do a little research, implement an idea, produce results and write a summary. The due dates for each assignment are noted on the syllabus. Assignment directions will be released via the class web page as soon as the previous assignment has been completed. *Late homework will not be accepted.* Instructions for online submission of homework assignments are embedded in the Canvas system.

**Group Homework:** There will be one group homework assignment (HW6 “Scale”), noted on the syllabus. Instructions for the group effort will be released via the class web page during Week 11. Groups will be assigned.

**Due Dates:** Homework assignments and lab notes will always be due on the Thursday (before midnight) of the week indicated on the syllabus. Lab notes must be submitted EVERY WEEK. Each week’s submission must show notes about the reading for that week and progress on whatever homework assignment is active for that week. Lab notes lacking a summary of the week’s reading AND notes about progress on the active assignment during that interval will not receive full credit.

**CS585 vs. CS685:** Graduate students taking this course for CS685 credit will be required to implement additional features on each individual homework and lab book assignment. This will be noted on the assignment specifications.

## 4. Academic Conduct

Individual work (individual portions of project work, homework, quizzes) must be your own. You may discuss ideas with others, but no plagiarism of work will be allowed. The University of Kentucky’s guidelines regarding academic dishonesty will be strictly enforced.

If you need to refer to someone else's work, or if you collaborate with someone, *cite them explicitly*. Plagiarism, including misrepresenting others' work as your own, will not be tolerated in any form. Academic offenses are defined in Section 6.3 of the University Senate Rules. You are expected to have read and abide by those rules. When academic dishonesty is suspected, the procedures specified in Section 6.4 of the University Senate Rules will be followed.

## 5. In-Class Courtesy and Engagement

It is your responsibility to attend class consistently and remain engaged during those periods of time. Engagement means that you are paying attention to the class activity. It means that you are not “texting” via some device, reading your email, talking on your cell phone, or involving yourself in any activity that is a distraction from the instructional effort that has been prepared for you.

Electronics may be used for note taking, coding examples, and reference during class. However, if at any time the device is used as a distraction or prevents you from being engaged with class activities, you will be asked to cease your activity, and the expectation is that you will comply with the request. If you refuse to comply you will be asked to leave the class.

If you are called on to participate in class, the expectation is that you will be prepared to play a willing and active part in the discussion at hand. The goal of the class gatherings is to engage with the instructor, the material, and the community of your classmates.

## 6. Course Evaluation Questions

These questions will appear on the final course evaluation. The goal of the course is to provide a directed and comprehensive learning experience that will enable you to offer the highest rating on each of the questions. In order for that to happen, you will need to work hard to do your part – attend class meetings, study the material, do the readings, etc.

The course has helped me to improve my ability, my understanding, or my knowledge in the following categories:

37. I have a better understanding of web crawling.
38. I have a better understanding of the implementation details of crawling, ranking, and search.
39. I have a better understanding of how scale affects solutions to search problems.
40. I have a better understanding of digital assets and their representation, organization, and management.
41. I have a better understanding of code review, testing, and group computer application development.
42. This course has enhanced my ability to function effectively on a team to accomplish a common goal.