

## LSP 121 – Quantitative Reasoning and Technological Literacy (QRTL) II

### Syllabus

### December 2012

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*[Note that I am rarely in my office this December  
so email/Skype Chat/SMS are better ways to  
reach me]*

**Virtual Office Hours:** Since we are working virtually, simply text or Skype me if you want to meet and we will arrange a mutually convenient time as quickly as possible. See my contact information on the right side of this page.

#### Course Description

In this course students continue the study of issues in the sciences, social sciences, and management in which quantitative data plays a significant role. This second course in QRTL will emphasize more the role of computer technology. Extensive use will be made of computer tools such as Web 2.0 technologies, database, spreadsheet and programming languages.

#### Required Materials:

Access to the Internet and Microsoft Office 2010. If you do not have a copy of MS-Office 2010 available, **please contact me to discuss alternate software.**

Do not overlook this issue. Last quarter I tried to support students using version of Open Office on their Macs. This did not work out very well due to differences between MS-Office and Open Office. **If you must do your work on a Macintosh, or you have no way to access (no pun intended) MS-Access, we need to discuss this up front.**

**Textbook:** none

#### Prerequisites: LSP 120

LSP 121 is a Liberal Studies requirement for freshman and transfer students that entered DePaul University on or after the Autumn quarter 2006. When taking LSP 121, you may “reduce by one the number of courses they must take to meet their Learning Domain Area

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requirements. This course reduction can come from any one of the six Learning Domains, as long as the student still takes at least one course from each Domain and as long as the student still completes the laboratory and quantitative requirements in the Scientific Inquiry area.”

If you feel you already know the materials presented in this course, there is a placement exam you may take. **You must take this exam within the first week of classes to waive the course this quarter.** If you pass this exam, you will be waived from taking this course. Consult the [qrc.depaul.edu](http://qrc.depaul.edu) website (click on Links in the left navigation bar, click on LSP 121 Placement Exam Study Guide in the list) for additional details. **If you plan to take this placement exam and have not already done so, then drop the December course, take the exam, and take the course in Winter should you not pass.**

### Objectives of course:

This Quantitative Reasoning and Technological Literacy course is designed to help you to become a more confident, critical, and capable user of quantitative information of all kinds. In particular, it will help you to

- critique quantitative arguments, whether given numerically, graphically, or in written form
- manipulate data via the creation and use of relational databases
- become acquainted with basic descriptive statistics and probability
- understand the basic concepts of algorithm creation and programming

### Grading Breakdown:

- **Quizzes/Participation – 12%**  
There will be a Getting Started quiz, another quiz week one, and a quiz week two. The participation grade is minor in December, but active support for other students on the discussion board will generate lots of good karma points.
- **Assignments – 33%**  
There will be two assignments due Week One, two assignments due Week Two, and two assignments due Week Three (plus the exam and final project). Not all assignments will necessarily be weighted the same.
- **Exam – 35%**  
The proctored exam can be taken between Thursday December 13 and Saturday December 15.
- **Final Project – 20%**  
The final project is due Friday, December 14 @ 11:59pm

An expanded description of each follows:

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**Exam** – The exam must be taken in order to receive a grade in the course. You must receive a grade of 40 or greater on the exam to pass the course. CDM provides support for finding a proctor if you are unable to take the exam at one of the DePaul campuses. Detailed information about proctoring will be made available early in the course. **Any student requiring PLuS support for the exam should contact me with the appropriate paperwork during the first week of the course.**

If you cannot take the exam due to illness or family emergency, you must inform me in advance. In such situations, you will typically receive an incomplete grade in the course, and we will make arrangements for you take the final exam as soon as possible the next term.

**Project** – This is an individual project (not group work) that must be submitted into the D2L Dropbox prior to end of day Friday December 14. Tutoring (and my office hour support) is available to help you with this project. Evidence that the work you submitted is not your own may result in failure in the course.

**Assignments** - There will be assignments on the material presented. Their purpose is to give you practice on the skills we are learning, to explore some ideas more thoughtfully and deeply, and to prepare for the quizzes/exam. The assignments are posted on D2L/Content and will be made available at the beginning of the Module. Homework assignments must be done individually and are due by the due date posted on D2L. **They will not be accepted after the solutions are made available on-line.**

**Participation** –As this is an online class, it does not require we meet or interact at specific times. For this December, required online participation will be minimal. However, there will be a discussion board for Q and A about assignments. Students who provide useful and timely feedback and advice to other students will be rewarded for doing so.

**Pacing** – Students must complete work as assigned for the due dates specified. **This is not a self-paced course.** Late submission of assignments will result in a significant grading penalty. To the extent assignments are posted early, student are free to submit them ahead of time.

You are responsible for making sure you received appropriate grades for work you submitted. **You have one week after the grades are posted to question a grade.** You question a grade by sending email to me about it that is dated less than a week after the grade was posted. Grades are locked in after one week if email is not sent to me at the appropriate time.

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### Grading Scale:

92 - 100	A	80 - 81	B-	68 - 69	D+
90 - 91	A-	78 - 79	C+	60 - 67	D
88 - 89	B+	72 - 77	C	0 - 59	F
82 - 87	B	70 - 71	C-		

### Submitted Materials

You should keep a copy of all materials you submit to the Dropbox until the end of the course. Last quarter we experienced the disappearance of some materials (I think it was human error, but who knows.) If your material disappears, you need to be able to provide it again. This issue is most critical if you are doing work on a friend's or lab computer. Make sure to email or archive a copy of your work for yourself.

### Incomplete and FX Grades

Grades of Incomplete are given only in cases of medical emergency or other highly unusual emergency situations. Please note that University guidelines require that you must be earning a passing grade at the time you request an incomplete grade. You should have completed most of the course, with at most one or two major forms of evaluation missing. Incompletes revert to an F if they are not resolved within one quarter. If such a situation should occur, please inform the instructor as soon as possible.

### Academic Integrity

Violations of academic integrity, particularly plagiarism, are not tolerated. Plagiarism is defined by the university as:

*"..a major form of academic dishonesty involving the presentation of the work of another as one's own. Plagiarism includes but is not limited to the following:*

- a. The direct copying of any source, such as written and verbal material, computer files, audio disks, video programs or musical scores, whether published or unpublished, in whole or part, without proper acknowledgement that it is someone else's.*
- b. Copying of any source in whole or part with only minor changes in wording or syntax, even with acknowledgement.*
- c. Submitting as one's own work a report, examination paper, computer file, lab report or other assignment that has been prepared by someone else. This includes research papers purchased from any other person or agency.*
- d. The paraphrasing of another's work or ideas without proper acknowledgement.*

*Plagiarism, like other forms of academic dishonesty, is always a serious matter. If an instructor finds that a student has plagiarized, the appropriate penalty is at the instructor's discretion. Actions taken by the instructor do not preclude the college or the university from taking further punitive action including dismissal from the university"* (DePaul Student Handbook).

University policies on academic integrity will be strictly adhered to. Consult the Academic Integrity website for further details.

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### Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If it occurs, it will be thoroughly addressed on the course site.

### Tentative Schedule

**Week 1:** **Module 0:** Overview of the course, self-assessment, student presentations, and introduction to databases

**Module 1:** Relational databases and normalization, database queries

**Module 2:** Database forms, reports and switchboards

**Week 2:** **Module 3:** Introduction to algorithms

**Module 4:** Scratch programming basics and advanced

**Week 3:** **Module 5:** Descriptive statistics

**Module 6:** Probability and risk, correlation

**Project:** Comprehensive final project due

**Exam:** Proctored comprehensive final exam

Do note this is a lot of material in a very short time.