

Note: This is an online (Remote Asynchronous) class.

Syllabus for Semester **Spring 2021**

Department of Labor Studies and Employment Relations - Rutgers University

A. 37:575:403:90 & 38:578:503:90, Problem Solving Tools at Work

B. Course Description: This course provides an overview of problem-solving tools and techniques. It focuses on the fundamentals needed to understand the research of others. Included will be the use and interpretation of Excel and Data Analysis.

C. Course Objectives (37:575:403)

Labor Studies and Employment Relations Department:

- Formulate, evaluate and communicate conclusions and inferences from quantitative information (Goal 12).

Rutgers Undergraduate Core Curriculum:

- Quantitative & formal reasoning (Goal W)

School of Management and Labor Relations:

- Demonstrate an ability to collect, analyze and synthesize information to make logical and informed decisions impacting the workplace. Use evidence to evaluate hypotheses, theories and approaches to workplace issues (Goal II).

Course Objective: (38:578:503)

School of Management and Labor Relations Learning Objective:

- Demonstrate an ability to collect, analyze and synthesize information to make logical and informed decisions impacting the workplace. Use evidence to evaluate hypotheses, theories and approaches to workplace issues (Goal III).

D. Professor: Sheila M. Lawrence, Ph.D.

Email ID: smlawren@smlr.rutgers.edu

E. Office Hours: By Appointment via WebEx

Sheila Lawrence's Personal Room on Webex is:

<https://rutgers.webex.com/meet/smlawren>

Please click the "Join Meeting" and your mic should not be red.

A drop-in hour will be from 6:00 – 7:00 PM on Thursdays via Webex. Project and Excel questions, brainstorming ideas on issues at Rutgers or at your jobs/internships, etc. are welcome.

F. Text: (Edition 1 or 2 is fine.) Evans and Lindsay, **An Introduction to Six Sigma and Process Improvement**, Cengage, 2015, 978-1-133-60458-7.

G. Resources for Student Success: The faculty and staff at Rutgers are committed to your success. Students who are successful tend to seek out resources that enable them to excel academically, maintain their health and wellness, prepare for future careers, navigate college life and finances, and connect with the RU community. Resources that can help you succeed and connect with the Rutgers community can be found at success.rutgers.edu, and nearly all services and resources that are typically provided in-person are now available remotely.

H1. Computer/Software/Apps/Accessories Requirements

- Access to the internet
- Microsoft Word
- Webcam (recommended)
- Headphones (highly recommended)
- Reliable computer
- Basic Computer Specifications for Canvas

Excel: Only Excel 2016 (either PC or Mac) can be used in the class. It is free while you are a student at Rutgers. Further details are in Part T below.

H2. Technical Support

If you need technical assistance at any time during the course or to report a problem with Canvas:

- Visit the Canvas Student Tutorial in Canvas, Module A, Technical Support
- Visit the Rutgers Canvas Student orientation in Module A

Technical support for Canvas has transitioned from Teaching and Learning with Technology (TLT) to the Office of Information Technology (OIT).

Helpdesk: Rutgers Office of Information and Technology

Email: <https://it.rutgers.edu/help-support>

Call: 833-OIT-HELP

I. Special Needs – Rutgers, the State University of New Jersey abides by the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments (ADAA) of 2008, and Sections 504 and 508 which mandate reasonable accommodations be provided for qualified students with disabilities and accessibility of online information. If you have a disability and may require some type of instructional and/or examination accommodation, please contact me early in the semester so that I can provide or facilitate in providing accommodations you may need. If you have not already done so, you will need to register with the Office of Disability Services, the designated office on campus to provide services and administer exams with accommodations for students with disabilities. Here are the particulars: [Lucy Stone Hall](#), Livingston Campus, 54 Joyce Kilmer Ave., Suite A145, Piscataway, NJ 08854-8045

E-mail Address: dsoffice@rci.rutgers.edu **Phone:** (848) 445-6800 • **Fax:** (732) 445-3388

I look forward to talking with you soon to learn how I may be helpful in enhancing your academic success in this course.

J. Assessments: This class is hands-on and features an assessment of projects, rather than a lecture course that uses exams to assess learning. Course assessment is calculated as a weighted average of the course projects.

K Project Schedule: Per Canvas, project due-dates are tentative until confirmed. Assignments and readings/videos represent the material to be covered during that class session. Students are expected to complete the readings/videos.

Undergraduate Students

Week Introduced	Project	Points	Week Due
0	11 Discussions = 242 points	242	--
0	LinkedIn Learning	2	1
0	Survey - IT Readiness, etc.	7	1
0	Student Profile	2	1
1	Leadership Self-Assessment	100	2
3	Survey Design Project	100	4
2	Pareto Analysis	100	5
4	Website QA	100	6
6	Cause and Effect Diagram	100	8
7	Process Map	60	9
8	Interrelationship Diagram Project	100	10
9	Force Field Analysis	100	11
10	Forum - Ask the Lean Six Sigma Master Black Belt	22	11
11	Forum - Ask the Quality Guru	22	12
12	Forum - Excel Workshop on Pivot Tables	22	13
13	Excel CDA: Pivot Table, Descriptive Statistics/Confidence Interval, Correlation, and Regression	100	14
	Total	1,179	

Graduate Students

Week Introduced	Project	Points	Week Due
0	11 Discussions, 22 points each: (throughout the semester)	242	--
0	LinkedIn Learning	2	1
0	Survey - IT Readiness, etc.	7	1
0	Student Profile	2	1
1	Leadership Self-Assessment	100	2
1	Deming Project	100	3
3	Survey Design Project	100	4
2	Pareto Analysis	100	5
4	Website QA	100	6
5	Benchmarking	100	7
6	Cause and Effect Diagram	100	8
7	Process Map	60	9
8	Interrelationship Diagram Project	100	10
9	Force Field Analysis	100	11
10	Forum - Ask the Lean Six Sigma Master Black Belt	22	11
11	Forum - Ask the Quality Guru	22	12
12	Forum - Excel Workshop on Pivot Tables	22	13
13	Excel CDA: Pivot Table, Descriptive Statistics/Confidence Interval, Correlation, and Regression	100	14
	Total	1,379	

L. Required: Reading assignments/videos must be completed prior to each lecture.

M. Assessment Policy:

Posting of Grades: please check MyRutgers for your final grades.

Letter Grade	Scores Based on Course Components
A	90-100
B+	85-89
B	80-84
C+	75-79
C	70-74
D	60-69
F	< 60

Note: The thresholds for final letter grades will be re-scaled if a conventional standard seems unreasonable.

N. Academic Integrity: All students are responsible for locating, reading, and abiding by the University Policy on Academic Integrity for Undergraduate and Graduate Students. The policy is available on-line at <http://cat.rutgers.edu/integrity/policy.html>

O. Recommendations: Requests for a recommendation must be made in writing **after completion of the course**. Please be courteous and do not provide my e-mail address without my consent as I will need pertinent background information.

P. Take Home Assignments: Each project must be handed in on time in its entirety. The submission must be complete; no partial assignments can be submitted.

Q. Student E-Mail and Phone Numbers:

a. Please note that it is [Rutgers IT policy](#) that you use your Rutgers.edu email for all Rutgers related course correspondence.

b. Students, also, have the responsibility to then inform the professor of any changes to their phone numbers (day and evening) from the listing in the Student Profile.

c. Please check your e-mail and the course Canvas site regularly, especially on the day of class, to learn if there are any changes in the class schedule, class requirements, or for other general announcements. Announcements will be communicated through Canvas which will trigger email notification to your Rutgers.edu email. Additionally, you may download and install the Canvas Student App for your mobile devices so you can be notified via the app. To download/install the app refer to: [Canvas Student App iOS](#), [Canvas Student App Android](#).

R. Study Groups: Forming study groups will facilitate learning by keeping you focused, involved, and current in the course.

S. University/Campus Closings: 732-932-INFO (New Brunswick); <http://campusstatus.rutgers.edu>

T. Excel 2016 and Data Analysis

To determine what version of Excel you have: On Excel, select File, then Account to determine your version of Excel.

To access free Microsoft Office, including Excel while a Rutgers student, please click go to the Rutgers Software Portal:

<https://oit.rutgers.edu/university-software-portal>

Go to the link above and select the University Software Portal link. On the page that follows, select Microsoft Software for Students. You will be prompted to log in using your NetId. Then follow the instructions for downloading and installing.

Excel Work can be done at the library or the computer labs. If you do not have a help option, then your version of Excel, Excel Light, or the student version, as well as open source software and Numbers, Google Drive or Google Sheets do not have the Analysis Toolpak/Data Analysis.

- PC users: Install the Excel Analysis Pack for additional statistical and analytical tools:

- From the Office Button, select Excel Options and Add-Ins
- In the inactive application section, select Analysis Tool Pack and hit GO and OK to install
- Use the Analysis Tool Pack from the Data Ribbon, Data Analysis option
The Analysis Tool Pack includes histograms, regressions, sampling data, Fourier analysis, et. al, and also includes several randomization functions, such as RAND and RANDBETWEEN

• MAC Users - Microsoft Excel 2016 Analysis ToolPak

<https://support.office.com/en-sg/article/Load-the-Analysis-ToolPak-in-Excel-2016-for-Mac-617afc33-4af8-4530-b132-7b4e938890d0?ui=en-US&rs=en-SG&ad=SG&fromAR=1>

To download the Analysis ToolPak Add In: Go to Tools at the top toolbar in Excel; at the bottom of the list, please select "Excel Add-ins"; then select Analysis ToolPak" and click OK. Confirm by selecting Data; then Data Analysis.

U. Student-Wellness Services:

Just In Case Web App

<http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

The Office of Disability Services works with students with a documented disability to determine the eligibility of reasonable accommodations, facilitates and coordinates those accommodations when applicable, and lastly engages with the Rutgers community at large to provide and connect students to appropriate resources.

Scarlet Listeners

(732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

Rutgers Student Food Pantry

<http://ruoffcampus.rutgers.edu/food/>

Graduate Student Association Food Bank

<http://gsa.rutgers.edu/grad-resources/rutgers-student-food-pantry/>

pantryRUN is the campus food pantry

<https://myrun.newark.rutgers.edu/pantryrun>

Note: There is no final exam during Finals Week.

Note: This course outline/syllabus is subject to change at the discretion of the instructor.