

COURSE NAME: Economics of Production

COURSE NUMBER: 11:373:321

SEMESTER: Fall 2019

MEETING DAYS, TIMES, AND PLACE: M, W 5:35PM - 6:55PM, HCK 119

PREREQUISITE: 01:640:135 or 01:640:151 or 11:373:121 AND 11:373:211

CONTACT INFORMATION:

Instructor(s): Dr. Basanta Chaudhuri

Office Location: 117 Cook Office Building

Phone: 848-732-9138

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Office Hours: Tues 11:00-12:00 noon, Wed 9:00-10:00am and by appointment

COURSE WEBSITE, RESOURCES AND MATERIALS:

- Sakai course website

COURSE DESCRIPTION:

This is an applied intermediate microeconomics course that focuses on Economics of Production and its application in agricultural and business management. The Economics of Production is looked at from the inside as concerns of production, cost, profitability, and competitive strategy considerations, and it is examined from the outside as concerns of the influences of market demand, competition, market structure, and resource supply. The course uses examples and applications to bridge the gap between theory and practice. The course also gives a good grounding in the terminology of Operations Management and an overall perspective of Operations Management within the context of a business organization.

LEARNING GOALS:

In this class you will learn:

The operations management of how inputs are transformed into output to achieve business objective of profit maximization. You will be learning few tools of operations to find optimal combinations of inputs and output.

- Production (with single input and multiple inputs) under perfect competition and under imperfect markets.
- Operation strategies, forecasting
- Project management
- Supply-Chain and inventory management
- An introduction to risk and uncertainty
- Linear Programming
- Transportation models

ASSIGNMENTS/RESPONSIBILITIES, GRADING & ASSESSMENT:

There will be three exams: Two Mid-terms and one final. Exams will consist of multiple choice questions and/or short answer questions (that involve problem-solving).

The course grade will be determined based on examinations, class participation, and homework assignments as follows:

Problem sets.....15% (and Attendance 5%)

First Exam.....25%

Second Exam.....25%

Final Exam.....30%

Assignments from the book (TO EARN few EXTRA CREDIT points SUBMIT HARDCOPIES OF YOUR WORK IN 3 INSTALLMENTS on each EXAM day; No emailing):

Chapter 1 #s 1.6, 1.7 (H&R)

On Dhillon and related materials as covered in class: **Separate Problem Set(s) will be posted in sakai** (also follow classroom examples)

Chapter 2 #s TBA (H&R)

Chapter 3 #s 3.14, 3.15, 3.16, 3.17 (H&R))

Chapter 4 #s 4.3, 4.5, 4.6, 4.13, 4.16, 4.23, 4.24 (H&R)

Chapter 12 #s 12.1, 12.2, 12.3, 12.4, 12.5 (H&R)

Chapter 13 #s TBA (H&R)

Chapter 14 #s TBA (H&R)

Module A #s A.1, A.2, A.3, A.7 (H&R)

Module B #s B1, B.2, B.3, B.5 (H&R)

Module C #s TBA (H&R)

ACCOMODATIONS FOR STUDENTS WITH DISABILITIES

Please follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at <https://ods.rutgers.edu/>

Reasonable accommodations will be provided for students with documented disabilities.

Students who have registered with The Office of Disability Services should make this known to the instructor. Students who have not yet registered their documented disability should do so immediately.

ABSENCE POLICY

Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.

COURSE SCHEDULE:

• **Textbooks:**

1. **Principles of Operations Management**, 9th, ISBN: 978-0132968362 (or 10th ISBN: 978-0134181981)
Edition by **J. Heizer and B. Render (H&R)** Pearson Publishing. (Higher Education)

(You might go for an older edition, but you will be responsible for all the possible changes)

2. **Economics of Production** By Dhillon P.S. of which Chapters 1-4 (the copy of chapters will be available in sakai "Resources") If this book is OUT OF PRINT, I shall use an Alternative Reference/Standard Textbook – to be announced in class/will be available in sakai (go to sakai Resources))

Pre-requisites: 01:640:135 & 11:373:121 or 01:640:135 & 01:220:102 or 01:640:139 & 11:373:121 or
01:640:139 & 01:220:102

Lecture Topics:

The following is a list of lecture topics. On some I will go into great detail, others I will but mention in passing.

Introduction to Operation Management	Chapter 1, Heizer and Render (H&R), Ch 1)
Theory of the Firm	Chapter 2, Dhillon/Alternative Source (sakai)
Production with one variable input	Chapter 3, Dhillon/Alternative Source (sakai)
Production with two or more inputs	Chapter 4, Dhillon/Alternative Source (sakai)

First Exam: (Wed, Oct 2)

OM: Operations Strategy	Chapter 2 (H&R)
OM: Project Management	Chapter 3 (H&R)
OM: Forecasting	Chapter 4 (H&R)
OM: Supply-Chain Management	Chapter 11 (H&R)
OM: Inventory Management	Chapter 12 (H&R)

Second Exam: (Wed, Nov 6)

OM: Short-term scheduling	Chapter 15 (H&R) (optional)
An introduction to risk and uncertainty	Quantitative modules A (H&R)
Linear Programming	Quantitative modules B (H&R)
Transportation model	Quantitative modules C (H&R)
If time permits (?):	
Waiting-Line (Queuing)	Quantitative modules D (H&R)

Final Exam Wed, Dec 11 (Last Day of Lecture)

FINAL EXAM/PAPER DATE AND TIME

Online Final exam Schedule: <http://finalexams.rutgers.edu/>

ACADEMIC INTEGRITY

The university's policy on Academic Integrity is available at <http://academicintegrity.rutgers.edu/academic-integrity-policy>. The principles of academic integrity require that a student:

- properly acknowledge and cite all use of the ideas, results, or words of others.
- properly acknowledge all contributors to a given piece of work.
- make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.
- treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- all student work is fairly evaluated and no student has an inappropriate advantage over others.
- the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

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 / www.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 / www.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/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 / <https://rutgers.campuslabs.com/engage/organization/scarletlisteners>

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