



Jagan Institute of Management Studies
3, Institutional Area, Sector-5, Rohini, Delhi-110085

Detail of Teaching Plan

Annexure IV-G



JAGAN INSTITUTE OF MANAGEMENT STUDIES

3, Institutional Area, Sector-5, Rohini, Delhi-110085

Paper Code- **MCA-223**

Course: **MCA**

Subject: **Cloud Computing**

Lesson Plan

Unit No.	Topic	Text Book	Reference Book	Objective	Target CO & BT level (Specify CO no)	Outcome
1	Introduction to Cloud Computing: Definition, Evolution & Characteristics, Service Models of cloud computing IaaS, PaaS, SaaS and their Comparisons, Issues & Challenges of Cloud Computing, Applications of Cloud computing	TB1 (Ch-1)	RB1	Cloud Computing Basic concepts and its applications, Popular public clouds and their features.	CO1, BTL3, CO3, BTL4	Identify the importance of Cloud Computing Paradigm, Cloud Security primitives & Load Configurations
1	Overview of Cloud Computing Security Configurations. Cloud Computing Architecture: Introduction, Cloud Architecture, Deployment of Models – (Public, Private, Community, and Hybrid Clouds) and their comparisons, IDaaS, Over View of Data intensive computing through Map Reduce	TB1 (Ch-2)	RB1	Cloud Computing Basic concepts and its applications, Popular public clouds and their features. Security issues in cloud and available countermeasures.	CO1, CO2, BTL3, CO3, BTL4	Understand the Cloud Security primitives, Examine the Use cases of various Cloud Computing Titans.
2	Virtualization in Cloud: Virtualization, Implementation of Virtualization,	TB1 (Ch-3)	RB1	Virtualization and its role in the implementation	CO2, BTL4	Model and apply the concepts of



	Middleware Support for Virtualization, Advantages & Applications of Virtualization, Virtualization Implementation Techniques, Hardware Virtualization, Types of Virtualization			on of cloud computing		Virtualization and Security in the cloud computing environment
2	Security Issues in Cloud Computing: Introduction, Security Challenges in Cloud Computing, Information Security, Privacy and Trust in Cloud Computing	TB1 (Ch-4)		Security issues in cloud and available countermeasures. Virtualization and its role in the implementation of cloud computing	CO2, BTL3, CO3, BTL4	Understand the Cloud Security primitives
3	Data Centre Architecture and Technologies: Architectural Building Blocks of Data Centre, Industry Direction and Operational and Technical Phasing, Industry Direction and Overview of Operational and Technical Phasing (Overview of 5 Phases)	TB2 (Ch-3)		Data centre overview and its architecture. Popular public clouds and their features.	CO1, BTL3, CO3, BTL4	Analyze the concept of Data Centres with Cloud Computing and examine the Use cases of various Cloud Computing Titans
3	Computing with Titans: Google, Microsoft, Amazon, IBM, Accessing the Cloud- Platforms through a brief overview of Web Applications, Web API's, Web Browsers.	TB3 (Ch-6)		Popular public clouds and their features.	CO3, BTL4, CO4, BTL6	Examine the Use cases of various Cloud Computing Titans



4	Migrating to the Cloud: Cloud Services for Individuals, Cloud Services aimed at Mid Markets, Enterprise, Best Practices and Future of Cloud Computing. Implementation of Cloud Using Any Cloud Platform :	TB3 (Ch-13,14)	RB2	Popular public clouds and their features. Virtualization and its role in the implementation of cloud computing	CO3, BTL4, CO4, BTL6	Design & Appraise Cloud Computing based VMS and weigh the advantages & disadvantages of various proprietary platforms along with available best practices.
5	Introduction to Web Services, Structure, Objective, Cloud Portals, Groups, Mobile Apps, Setting up of Cloud Services, Containers, Handling Cloud Shell, Setting up of projects, Building Virtual Infrastructure, Deployment of Virtual Machine, Configuring Load Balancing.	TB4 (Ch-6)	RB2	Virtualization and its role in the implementation of cloud computing, Cloud Computing Basic concepts and its applications Popular public clouds and their features.	CO1, CO2, BTL3, CO4, BTL6	Design & Appraise Cloud Computing based VMS and weigh the advantages & disadvantages of various proprietary platforms along with available best practices

TEXT BOOKS:

TB1. V. K. Pachghare, "Cloud Computing" PHI Learning, 1st Edition, 2016.

TB2. Venkata Josyula, Malcom Orr, Greg Page, "Cloud Computing – Automating the Virtualized Data Center", Cisco Press, 1st Edition, 2016.

TB3. Toby Velte, Anthony Velte, Robert Elsenpeter, "Cloud Computing a Practical Approach", McGraw Hill, 1st Edition, 2015.

TB4. Mitanshi Joshi, "Agile, DevOps and Cloud Computing with Microsoft Azure", BPB Publications, 1st Edition, 2019



REFERENCE BOOKS:

RB1. Erl Thomas, Puttini Ricardo, Mahmood Zaigham, "Cloud Computing - Concepts, Technology and Architecture", Pearson India, 1st Edition, 2014.

RB2. Srinivas Cheemalapati Yi-an Chang, Shahir Daya, Matthieu Debeaux, Odilon Magroski Goulart, Vasfi Gucer, Rahul Gupta, Shamim Hossain, David Kwock, Jordan T Moore, David N Nguyen, Bobby Woolf, "Hybrid Cloud Data and API Integration: Integrate Your Enterprise and Cloud with Bluemix Integration Services", IBM Redbooks, 2nd Edition, 2016.

RB3. Has Altaiar Jack Lee, Michael Peña, "Cloud Analytics with Microsoft Azure: Build modern data warehouses with the combined power of analytics and Azure", Packt Publishing Ltd, 1st Edition, 2019.



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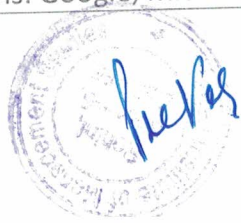
Paper Code- MCA-223

Course: MCA

Subject: Cloud Computing

Lecture Plan

Lecture No.	Topic	Mapping
1	UNIT I: Introduction to Cloud Computing: Definition, Evolution & Characteristics,	CO1, BTL3 CO3, BTL4
2	Service Models of cloud computing IaaS, PaaS, SaaS	
3	IaaS, PaaS, SaaS Comparisons	
4	Issues & Challenges of Cloud Computing	CO4, BTL6
5	Applications of Cloud computing	
6	Overview of Cloud Computing Security Configurations	
7	Cloud Computing Architecture: Introduction, Cloud Architecture,	CO2, BTL3, CO3, BTL4
8	Deployment of Models – (Public, Private, Community, and Hybrid Clouds)	
9	Public, Private, Community, and Hybrid Clouds comparisons	
10	IDaaS	CO1, BTL3
11	Over View of Data intensive computing through Map Reduce	CO3, BTL4
12	Class Test 1	
13	UNIT II : Virtualization in Cloud: Virtualization, Implementation of Virtualization,	CO2, BTL3, CO3, BTL4
14	Middleware Support for Virtualization	
15	Advantages & Applications of Virtualization	
16	Virtualization Implementation Techniques,	CO2, BTL3, CO3, BTL4
17	Hardware Virtualization	
18	Types of Virtualization.	
19	Security Issues in Cloud Computing: Introduction	CO4, BTL6
20	Security Challenges in Cloud Computing,	
21	Information Security,	
22	Privacy and Trust in Cloud Computing	
23	UNIT III: Data Centre Architecture and Technologies: Architectural Building Blocks of Data Centre	CO1, CO2, BTL3, CO3, BTL4
24	Industry Direction and Operational and Technical Phasing,	
25	Industry Direction and Overview of Operational and Technical Phasing (Overview of 5 Phases)	
26	Class Test II	
27	Computing with Titans: Google, Microsoft, Amazon, IBM	CO3, BTL4



28	Accessing the Cloud- Platforms through a brief overview of Web Applications,	CO1, BTL3, CO4, BTL6
29	Web API's	
30	Web Browsers.	
31	Revision	
32	UNIT IV: Migrating to the Cloud: Cloud Services for Individuals,	CO1,BTL3,CO3, BTL4, CO4, BTL6
33	Cloud Services aimed at Mid- Markets, Enterprise,	
34	Best Practices and Future of Cloud Computing	
35	Implementation of Cloud Using Any Cloud Platform : Introduction to Web Services,	
36	Best Practices and Future of Cloud Computing.	
37	Implementation of Cloud Using Any Cloud Platform : Introduction to Web Service	
38	Structure, Objective, Cloud Portals, Groups	CO3, BTL4
39	Mobile Apps, Setting up of Cloud Services,	CO1, BTL3, CO3, BTL4,CO4, BTL6
40	Containers	
41	Handling Cloud Shell	
42	Setting up of projects, Building Virtual Infrastructure	
43	Deployment of Virtual Machine, Configuring Load Balancing	CO1, BTL3
44	Revision	



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LESSON PLAN

Course Code : MCA-103

Course Name : Computer Networks

UNIT – I No. of Hours: 11	Target CO Duration	
Introductory Concepts: Goals and Applications of Computer Networks, OSI reference model, TCP/IP protocol suite, networks topology & design. Networking Devices (Hub, Bridge, Switch & router).	CO1	3 hours
Physical Layer: The functions of Physical Layer, Guided Transmission Media, Wireless Transmission media, Communication Satellites,	CO2	3 hours
Digital Signal Encoding Formats, Digital to Analog Modulation, Digitization – Sampling Theorem, PCM, DM, Analog to digital Modulation, The Mobile Telephone System, Multiplexing	CO2	5 hours
UNIT – II No. of Hours: 11		
The Data Link Layer: Data Link Layer introduction, Error Detection and Correction, Flow Control Protocols, Error Control protocols.	CO4	4 hours
Medium access sublayer: Channel allocation problem, ALOHA Protocols, Carrier Sense Multiple Access Protocols, CSMA with Collision Detection, Collision free protocols,	CO4	5 hours
Ethernet, wireless LANs, BlueTooth, Wi-Fi	CO4	2 hours
UNIT – III No. of Hours: 12		
Network Layer: Functions of network layer, IPv4: Classful & classless addressing,	CO3	4 hours
Routing algorithms, IP packet format, IPv6: addressing, neighbour discovery, address auto configuration	CO5	5 hours



UNIT – IV No. of Hours: 10		
Transport Layer: Transport layer functions, Transport layer protocols, UDP, TCP, connection management, flow control, error control and congestion control.	CO6	5 hours
Application Layer: DNS, Electronic Mail, www, firewalls, Concept of public & private keys	CO6	5 hours

TEXT BOOKS:

- TB1. Behrouz A. Forouzan, "Data Communication and Networking", TMH, 5th Edition, 2017.
- TB2. Behrouz A. Forouzan, "TCP/IP Protocol Suite", Tata Mc Grew Hill, 4th Edition, 2009.
- TB3. A. S. Tanenbaum, "Computer Networks", Pearson, 5th Edition, 2013.

REFERENCE BOOKS:

- RB1. Douglas E. Comer, "Computer Networks and Internet", Pearson, 6th Edition, 2018.
- RB2. Douglas E. Comer, "Internetworking with TCP/IP", Pearson, 6th Edition, 2015.
- RB3. S. Keshav, "An Engineering Approach to Computer Networking", Pearson, 1st Edition, 2002.
- RB4. Kevin R Fall and W. Richard Stevens, "TCP/IP illustrated, Volume 1: The Protocols", Addison Wesley, 2nd Edition, 2011.
- RB5. W. Stallings, "Data and Computer Communication", Macmillan Press, 8th Edition, 2016.
- RB6 Jim Kurose, Keith, "Ross Computer Networking: A Top Down Approach", 8th edition: Publisher : Pearson Education; 8th edition (31 May 2022)
- RB7 Andrew S. Tanenbaum, "Computer Networks" Sixth Edition; Pearson Education; Sixth edition (1 April 2022)
- RB8 Behrouz A. Forouzan, "Data Communications and Networking with TCP/IP Protocol Suite, Sixth edition" Publisher : McGraw Hill; Standard Edition (3 August 2022)



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Course Code : MCA-103
 Course Name : Computer Networks
 Number of hours per week : 04
 Total Classes : 44

LTC
 314

LEARNING OBJECTIVES

In this course, the learners will be able to develop expertise related to the following:-

1. Understand basics, topologies and working mechanism of wired and wireless computer networks.
2. Analyze the features and operations of protocols of OSI reference model & TCP/IP protocol suite.
3. Design, calculate, and apply routing mechanisms for IPv4 & IPv6.
4. Identify the networking requirements for an organization and select & propose appropriate architecture and technologies.
5. Work on Network addressing, design and implementation

Lecture Plan

Class	Topic	Target CO
1	Introductory Concepts: Goals and Applications of Computer Networks	CO1
2	OSI reference model, TCP/IP protocol suite	CO1
3	Networks topology & design. Networking Devices (Hub, Bridge, Switch & router)	CO2
4	Physical Layer: The functions of Physical Layer	CO1, CO2
5	Guided Transmission Media, Wireless Transmission media	CO1, CO2
6	Communication Satellites	CO2
7	Digital Signal Encoding Formats	CO1, CO2
8	Digital to Analog Modulation	CO1, CO2
9	Digitization – Sampling Theorem, PCM, DM	CO1, CO2
10	Analog to digital Modulation	CO2
11	The Mobile Telephone System, Multiplexing	CO2
12	The Data Link Layer: Data Link Layer introduction	CO4
13	Error Detection and Correction	CO4
14	Flow Control Protocols	CO4
15	Error Control protocols.	CO4
16	Medium access sublayer: Channel allocation problem	CO4
17	ALOHA Protocols	CO4
18	Carrier Sense Multiple Access Protocols	CO4
19	CSMA with Collision Detection	CO4
20	Collision free protocols	CO4



21	Ethernet, wireless LANs	CO2, CO4
22	Bluetooth, Wi-Fi	CO2, CO4, CO2, CO4
23	Network Layer	CO3
24	Functions of network layer	CO3
25	IPv4: Classful Addressing	CO3
26	Classless addressing	CO3
27	Routing algorithms	CO5
28	Static & Dynamic routing	CO5
29	IP packet format	CO5
30	IPv6: addressing	CO5
31	Mobile IP	CO5
32	Mobility in networks	CO5
33	IP Multicasting (Source based tree & Group shared tree)	CO5
34	Transport Layer: Transport layer functions	CO6
35	Transport layer protocols, UDP	CO6
36	TCP, connection management	CO6
37	flow control, error control	CO6
38	Congestion control.	CO6
39	Application Layer: DNS	CO6
40	Electronic Mail, www	CO6
41	Firewalls	CO6
42	Concept of public & private keys	CO6
43	DOUBT CLEARING SESSION	
44	MOCK TEST	

TEXT BOOKS:

- TB1. Behrouz A. Forouzan, "Data Communication and Networking", TMH, 5th Edition, 2017.
- TB2. Behrouz A. Forouzan, "TCP/IP Protocol Suite", Tata Mc Grew Hill, 4th Edition, 2009.
- TB3. A. S. Tanenbaum, "Computer Networks", Pearson, 5th Edition, 2013.

REFERENCE BOOKS:

- RB1. Douglas E. Comer, "Computer Networks and Internet", Pearson, 6th Edition, 2018.
- RB2. Douglas E. Comer, "Internetworking with TCP/IP", Pearson, 6th Edition, 2015.
- RB3. S. Keshav, "An Engineering Approach to Computer Networking", Pearson, 1st Edition, 2002.
- RB4. Kevin R Fall and W. Richard Stevens, "TCP/IP illustrated, Volume 1: The Protocols", Addison Wesley, 2nd Edition, 2011.
- RB5. W. Stallings, "Data and Computer Communication", Macmillan Press, 8th Edition, 2016



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BCA Semester II: Subject: Data Structures & Algorithms using C

Paper Code No.: BCA 106

Paper Name: Data Structures using C 44 L & T

LESSON PLAN

Unit	Topic	COs	No. of Hrs
1	<p>UNIT – I Chapter / Book Reference: TB1 [Chapters 1, 4, 9], TB2 [Chapters 1, 6, 7], TB3 [Chapters 1, 2,6,10]</p> <p>Linear Data Structures- Static: Introduction to Algorithms- Attributes, Design Techniques, Time Space Trade Off, Data Structures, Classification and Operations of Data Structures. Arrays: Single Dimension, Two-Dimension and Introduction to Multi Dimensions, Memory Representation, Address Calculation, Sparse Matrices- Types, Representation. Searching and Sorting: Linear and Binary Search, Selection Sort, Bubble Sort, Insertion Sort, Merge Sort, Elementary Comparison of Searching and Sorting Algorithms. Hashing: Hash Table, Hash Functions, and Collision Resolution.</p>	CO1	14
2	<p>UNIT – II Chapter / Book Reference: TB1 [Chapter 5], TB2 [Chapter 4], TB3 [Chapter 3]</p> <p>Linear Data Structures- Dynamic Introduction: Dynamic Memory Allocation, Dynamic Memory versus Static Memory Allocation. Linked List Types: Singly Linked List, Doubly Linked List, Header Linked List, Circular Linked List. Operations: Creation, Insertion, Deletion, Modification, Searching, Sorting, Reversing, and Merging.</p>	CO2	10
3	<p>UNIT – III Chapter / Book Reference: TB1 [Chapter 6], TB2 [Chapters 2, 4], TB3 [Chapters 4, 5]</p> <p>Abstract Data Types: Stacks: Introduction, Static and Dynamic Implementation, Operations, Applications- Evaluation and Conversion between Polish and Reverse Polish Notations. Queues: Introduction, Static and Dynamic Implementation, Operations, Types- Linear Queue, Circular Queue, Doubly Ended Queue, Priority Queue.</p>	CO3	9
4	<p>UNIT – IV Chapter / Book Reference: TB1 [Chapters 7, 8], TB2 [Chapters 5, 8], TB3 [Chapters 7, 8]</p> <p>Non-Linear Data Structures: Introduction to Graphs: Notations & Terminologies, Representation of Graphs- Adjacency Matrix, Incidence Matrix and Linked Representation</p>	Co4	11



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Trees: Notations & Terminologies, Memory Representation, Binary Trees Types- Complete, Full, Strict, Expression Binary Tree, Tree Traversals (Recursive), Binary Search Tree and Basic Operations Introduction and Creation (Excluding Implementation): AVL Tree, Heap Tree, M- Way Tree, and B Tree.		
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TEXT BOOKS:

1. TB1. Schaum's Outline Series, "Data Structures", TMH, Special Indian Ed., Seventeenth Reprint, 2014.
2. TB2. Y. Langsam, M. J. Augenstein and A.M. Tanenebaum, "Data Structures using C and C++", Pearson Education India, Second Edition, 2015.
3. TB3. D. Samanta, "Classic Data Structures", PHI, Second Edition, 2009.

REFERENCE BOOKS:

4. RB1. Ashok N kamthane "Introduction to Data Structures in C", Pearson, Third Edition, 2009.
5. RB2. E. Horowitz and S. Sahni, "Fundamentals of Data Structures in C". Universities Press, Second edition, 2008.
6. RB3. D. Malhotra and N. Malhotra, "Data Structures and Program Design using C", Laxmi Publications, Indian adapted edition from Mercury Learning and Information-USA, First edition, 2018.
7. RB4. Y. Kanetkar "Data Structures through C", BPB Publication, Third Edition, 2019.
8. RB5. R.F Gilberg, and B A Frouzan- "Data Structures: A Pseudocode Approach with C", Thomson Learning, Second Edition, 2004. RB6. A. K. Rath, and A.K. Jagadev, "Data Structures and Program Design Using C", Scitech Publications, Second Edition, 2011

Suggested Book:

1. Data Structures using C by Reeraja Thareja, 2nd Edition-2014; Oxford Publisher
2. Data Structures and Algorithm made easy by Narsimha Karumanchi, 5th Edition - 2016: Career monk Publication



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BACHELOR OF BUSINESS ADMINISTRATION Guru Gobind Singh Indraprastha University			
Paper	Paper Code	Paper Title	Credit
Core	BBA 109	IT Applications in Business	04
Number of Lecture Hours / Week		04	
Total Number of Lecture Hours		40-42	
Exam Hours		3 Hours	
Exam Marks		100 (End Term Exam – 75, Internal Assessment – 25)	

Course description

This course is designed for BBA students to instil the expertise in fundamentals of computer which will equip them with efficiency for doing all management tasks.

Course Objectives

At the end of this course the students will be able to:

- Classify computer systems and understand terms like software, hardware etc.
- Understand the concepts of networking of computers with its use
- Describe various network topologies and network devices.
- Learn the DOS commands
- Get to know the difference between different Transmission modes and media

Methodology

Class sessions will comprise of mixture of lectures with blend of Assignments and theory session with practical examples.

Evaluation pattern

Internal Assessment (including attendance and mid-term examination) : 25%

End Term Theory examination: 75%



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LESSON PLAN

UNIT	CONTENTS	SESSIONS and CO
1	<p>Basics of Computer and it's evolution Data, Instruction and Information, Characteristics of computers, Various fields of application of computers, Various fields of computer (Hardware, Software, Human ware and Firmware), Advantages and Limitations of computer, Block diagram of computer, Function of different units of computer, Classification of computers</p> <p>i) On the basis of technology (Digital, Analog and Hybrid) ii) On the basis of processing speed and storage capacity (Micro, Mini, mainframe and Super) iii. On the basis of Purpose(General & Special)</p> <p>Computer Memory: Primary Memory (ROM and it's type – PROM, EPROM,EEPROM, RAM) Secondary memory- SASD, DASD Concept, Magnetic Disks – Floppy disks, Hard disks, Magnetic Tape, Optical disks – CD ROM and it's type (CD ROM, CD ROM-R, CD ROM-EO, DVD ROM Flash Memory</p>	11 CO1
2	<p>Types of software (System and Application) Types of OS, Windows OS: Introduction to operating system; Function of OS, Types of operating systems, Booting Procedure, Start-up sequence, Details of basic system configuration, Important terms like Directory, File, Volume, Label, Drive name, etc. Compiler and Interpreter, Generation of language (Machine Level, Assembly, High Level, 4GL)</p>	10 CO3
3	<p>Desktop Components Advanced Excel : To be covered in the Practical</p>	10 CO4
4	<p>Concept of Data Communication and Networking: Networking Concepts, Types of networking (LAN, MAN AND WAN), Communication Media, Mode of Transmission (Simplex, Half Duplex, and Full Duplex), Analog and Digital Transmission. Synchronous and Asynchronous Transmission, Different Topologies Information technology and Society</p>	11 Co2 and CO5

Suggested Readings

1. Anita Goel Pearson Education India, 2010. Referred by University
2. Fundamentals of Computers 2014 by Rajaraman V and Vaabala M 2014, PHI Publication
3. Fundamentals of Computers 2019 edition by Reema Thareja
4. Leon , Introduction to information technology, Vikas Publications





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5. Fundamentals of Information Technology and Computer Applications by Dr. Wasim Akram Zargar, Nation Press:2022



LESSON PLAN

BA (Economics)(Hons.) Guru Gobind Singh Indraprastha University			
Paper	Paper Code	Paper Title	Credit
Core	BA (Economics)(Hons) – 207 (3 rd Semester)	Introduction to Econometrics	04
Number of Lecture Hours / Week		05	
Total Number of Lecture Hours		48	
Exam Hours		3 Hours	
Exam Marks		100 (End Term Exam – 75, Internal Assessment – 25)	

Recommended Readings:

- 1 Wooldridge, J. M. (2013). Introductory econometrics: A modern approach, Nelson Education, 5th edition.
- 2 Stock, J. H., & Watson, M. W. (2019). Introductory to Econometrics, Pearson education
- 3 Angrist, J. (2015), Mastering 'Metrics: The Path from Cause to Effect, Princeton University Press, 2015
- 4 Gujarati, D. N., & Porter, D. C. (2017). Essentials of Econometrics, Mc Graw Hill, 5th ed.

Books for Reference:

- 1 Koutsoyiannis. (2018). Theory of Econometrics, Second edition.
2. 5 Dougherty, C. (2021). Introduction to econometrics. Oxford University Press.5th Edition



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Lesson Plan

UNITS	CONTENTS	SESSIONS
1 – Introduction and Review of Statistics	<ul style="list-style-type: none"> ● Scope of Econometrics ● Review of Statistics ● Probability Distributions ● Normal Distribution ● t and F Distributions ● Chi-square Distribution ● Expected Value and Variance ● Parameter Estimation ● Interval Estimation ● Hypothesis Testing 	01 – 16
2 – Simple Linear Regression	<ul style="list-style-type: none"> ● Introduction ● OLS Parameter Estimation ● Properties ● Units of Measurement and Functional Form ● Gauss – Markov Assumptions ● Goodness of Fit ● Hypothesis Testing ● R Programming Lab 1 	17 – 28
3 – Multiple Linear Regression	<ul style="list-style-type: none"> ● Parameter Estimation ● Partial Regression Coefficients ● Hypothesis Testing – Individual and Joint ● R² and Adjusted R² ● Qualitative Independent Variables ● Model Specification ● R Programming Lab 2 	29 – 38
4 – Violation of Classical Linear Assumptions: Consequences, Detection, Remedies	<ul style="list-style-type: none"> ● Heteroscedasity ● Autocorrelation ● Multicollinearity ● R Programming Lab 3 	39 – 48

