

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Designing Learner-Centric MOOCs

Subject Co-ordinator - Dr.Sameer Sahasrabudhe, Prof.Sahana Murthy, Prof.Sridhar Iyer, Dr.Jayakrishnan M.

Co-ordinating Institute - IIT - Bombay

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Perceptions of MOOC
Lecture 2 - Learner Expectation
Lecture 3 - Learner Engagement
Lecture 4 - Course Introduction
Lecture 5 - Evolution of MOOCs
Lecture 6 - Known Challenges
Lecture 7 - Why LCM?
Lecture 8 - The LCM Model
Lecture 9 - What is an LeD?
Lecture 10 - Chunking a Lecture into LeD
Lecture 11 - Introducing Reflection Spot
Lecture 12 - Making Your Own LeD
Lecture 13 - Dos and Dont's - Part 1
Lecture 14 - Dos and Dont's - Part 2
Lecture 15 - LeDs Takeaway
Lecture 16 - What is an LbD?
Lecture 17 - Creating LbDs
Lecture 18 - Constructive Customized Feedback in LbDs
Lecture 19 - Giving Feedback for Open Ended Questions
Lecture 20 - Recommendations for effective LbDs
Lecture 21 - What is an LxT?
Lecture 22 - Creating LxTs
Lecture 23 - Creating an Assimilation Quiz
Lecture 24 - What is an LxI?
Lecture 25 - Creating LxIs with Reflection Quiz
Lecture 26 - Orchestrating your MOOC
Lecture 27 - Orchestration Dynamics in LCM
Lecture 28 - Assessment
Lecture 29 - From Regular course to LCM

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- Lecture 30 - Course Design in MOOC
- Lecture 31 - Maintaining Learner Connect
- Lecture 32 - Implementing the Learner-Centric Approach

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Introduction to Learning Analytics

Subject Co-ordinator - Prof. Ramkumar Rajendran

Co-ordinating Institute - IIT - Bombay

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to Learning Analytics

Lecture 2 - LA, EDM and Academic Analytics

Lecture 3 - Types of Learning Analytics - I

Lecture 4 - Types of Learning Analytics - II

Lecture 5 - Data Collection

Lecture 6 - Data Collection in TELE

Lecture 7 - Data collection in MOOC

Lecture 8 - Multichannel Data

Lecture 9 - Ethics and Data Privacy in LA

Lecture 10 - Descriptive Analytics

Lecture 11 - Data Visualization

Lecture 12 - YouTube Analytics Dashboard

Lecture 13 - MOOCs Analytics Dashboard

Lecture 14 - Predictive Analytics

Lecture 15 - Linear Regression

Lecture 16 - Weka demo and how to read the results

Lecture 17 - MOOC data for Course Project

Lecture 18 - Summary of the Course

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NPTEL Video Course - Multi Disciplinary - NOC:Designing Learner-Centric e-Learning in STEM Disciplines

Subject Co-ordinator - Prof.Sahana Murthy

Co-ordinating Institute - IIT - Bombay

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Course Preview
- Lecture 2 - Who Should Join this Course and Why?
- Lecture 3 - Course Format_Learner Centric MOOC (LCM)
- Lecture 4 - E Learning in STEM
- Lecture 5 - Challenges in e-learning
- Lecture 6 - What is Learner Centric Approach
- Lecture 7 - Instructional Design in e-learning
- Lecture 8 - ADDIE Process of Instructional Design
- Lecture 9 - Constructive alignment
- Lecture 10 - Implementing constructive alignment
- Lecture 11 - Promoting learner engagement with content
- Lecture 12 - Interactive video
- Lecture 13 - Learning by Doing (LbD)
- Lecture 14 - Articulation and Reflection
- Lecture 15 - Construct your Own Understanding
- Lecture 16 - Contextualized Learning
- Lecture 17 - Feedback
- Lecture 18 - Collaboration and Peer Learning
- Lecture 19 - Addressing Diversity
- Lecture 20 - Brief Recap and What's Next?
- Lecture 21 - Selection and Analysis of Effective Technology
- Lecture 22 - Effective Integration of Technology
- Lecture 23 - Multimedia Principle and Contiguity Principle
- Lecture 24 - Modality Principle and Redundancy Principle
- Lecture 25 - Coherence Principle
- Lecture 26 - Segmenting and Personalization Principle
- Lecture 27 - Visual Communication Strategies for Developing e-Learning Content
- Lecture 28 - Closing
- Lecture 29 - Industry Perspective

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Lecture 30 - Industry Perspective

Lecture 31 - Industry Perspective

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Sustainable and Affordable Sanitation Solutions for Small Towns

Subject Co-ordinator - Prof. N.C Narayanan

Co-ordinating Institute - IIT - Bombay

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to the Issue of Sanitation

Lecture 2 - Overview of Sanitation in the country

Lecture 3 - Centralised or Decentralised?

Lecture 4 - Need for Participatory Planning

Lecture 5 - Context setting for the Alappuzha Project

Lecture 6 - Environmental Policy

Lecture 7 - Environmental Impact Assessment 2006 and National Urban Sanitation Plan

Lecture 8 - Environmental Governance - Challenges and Alternatives

Lecture 9 - Municipal Solid Waste Management

Lecture 10 - MSWM - Status, Policy, governance structure

Lecture 11 - Integrated Municipal Solid Waste Management

Lecture 12 - Plastic Waste Management

Lecture 13 - Municipal Solid Waste Management in Alappuzha

Lecture 14 - Liquid Waste Management - an Overview

Lecture 15 - Introduction to Faecal Sludge Management

Lecture 16 - Faecal Sludge Management for Alappuzha town

Lecture 17 - Introduction to liquid waste treatment technologies

Lecture 18 - Decentralized Waste Water Treatment system - An Introduction

Lecture 19 - Case studies - Decentralised waste water treatment

Lecture 20 - Decentralized waste water treatment systems plan for Alappuzha

Lecture 21 - History of Sanitation in Alappuzha

Lecture 22 - Organic waste management in Alappuzha

Lecture 23 - Inorganic waste management - Role of Kudumbashree and Haritha Karma Sena

Lecture 24 - Youth engagement for reclaiming canals

Lecture 25 - Significance of institution building in reclaiming canals

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Fundamental of Fluid Mechanics for Chemical and Biomedical Engi

Subject Co-ordinator - Unknown

Co-ordinating Institute - IIT - Guwahati

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Introduction
- Lecture 2 - Fluid Mechanics and Chemical Engineering
- Lecture 3 - Biomedical Applications of Fluid Mechanics
- Lecture 4 - Vectors: A review
- Lecture 5 - Introductory Concepts - 1
- Lecture 6 - Introductory Concepts - 2
- Lecture 7 - Flow Visualisation
- Lecture 8 - Dimensional Analysis - Pi Theorem
- Lecture 9 - Dimensional Analysis- Ipsen Method
- Lecture 10 - Similitude
- Lecture 11 - Pressure Distribution in a Static Fluid
- Lecture 12 - Force of Submerged Surfaces
- Lecture 13 - Buoyancy
- Lecture 14 - Surface Tension
- Lecture 15 - Reynolds Transport Theorem
- Lecture 16 - Mass Conservation
- Lecture 17 - Momentum Conservation - I
- Lecture 18 - Momentum Conservation - II
- Lecture 19 - Energy Conservation
- Lecture 20 - Fluid Translation
- Lecture 21 - Fluid Rotation and Deformation
- Lecture 22 - Mass Conservation: Derivation
- Lecture 23 - Mass Conservation: Cylindrical Coordinates
- Lecture 24 - Navier Stokes Equations: Derivation
- Lecture 25 - Flow Between Two Parallel Plates
- Lecture 26 - Flow in a Falling Liquid Film
- Lecture 27 - Fully-developed flow in a circular channel
- Lecture 28 - Flow between two concentric cylinders
- Lecture 29 - Lubrication Approximation

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- Lecture 30 - Creeping Flows
- Lecture 31 - Equation of Motion in Streamline Coordinates
- Lecture 32 - Irrotational Flow
- Lecture 33 - Bernoulli's Equation and Flow Measurement
- Lecture 34 - Boundary Layers
- Lecture 35 - Momentum Integral Equation
- Lecture 36 - Flow Separation and Drag
- Lecture 37 - Introduction to Turbulence
- Lecture 38 - Turbulent Flow in a Pipe
- Lecture 39 - Turbulent Boundary Layers
- Lecture 40 - Flow in Pipes: Major Losses
- Lecture 41 - Flow in Pipes: Minor Losses
- Lecture 42 - Flow in Pipes: Types of Problems
- Lecture 43 - Cavitation and NPSH

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Fuzzy Logic and Neural Networks

Subject Co-ordinator - Prof. Dilip Kumar Pratihari

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Introduction to Fuzzy Sets
- Lecture 2 - Introduction to Fuzzy Sets (Continued...)
- Lecture 3 - Introduction to Fuzzy Sets (Continued...)
- Lecture 4 - Introduction to Fuzzy Sets (Continued...)
- Lecture 5 - Introduction to Fuzzy Sets (Continued...)
- Lecture 6 - Introduction to Fuzzy Sets (Continued...)
- Lecture 7 - Applications of Fuzzy Sets
- Lecture 8 - Applications of Fuzzy Sets (Continued...)
- Lecture 9 - Applications of Fuzzy Sets (Continued...)
- Lecture 10 - Applications of Fuzzy Sets (Continued...)
- Lecture 11 - Applications of Fuzzy Sets (Continued...)
- Lecture 12 - Applications of Fuzzy Sets (Continued...)
- Lecture 13 - Applications of Fuzzy Sets (Continued...)
- Lecture 14 - Applications of Fuzzy Sets (Continued...)
- Lecture 15 - Applications of Fuzzy Sets (Continued...)
- Lecture 16 - Applications of Fuzzy Sets (Continued...)
- Lecture 17 - Optimization of Fuzzy Reasoning and Clustering Tool
- Lecture 18 - Optimization of Fuzzy Reasoning and Clustering Tool (Continued...)
- Lecture 19 - Optimization of Fuzzy Reasoning and Clustering Tool (Continued...)
- Lecture 20 - Optimization of Fuzzy Reasoning and Clustering Tool (Continued...)
- Lecture 21 - Some Examples of Neural Networks
- Lecture 22 - Some Examples of Neural Networks (Continued...)
- Lecture 23 - Some Examples of Neural Networks (Continued...)
- Lecture 24 - Some Examples of Neural Networks (Continued...)
- Lecture 25 - Some Examples of Neural Networks (Continued...)
- Lecture 26 - Some Examples of Neural Networks (Continued...)
- Lecture 27 - Some Examples of Neural Networks (Continued...)
- Lecture 28 - Some Examples of Neural Networks (Continued...)
- Lecture 29 - Some Examples of Neural Networks (Continued...)

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- Lecture 30 - Some Examples of Neural Networks (Continued...)
- Lecture 31 - Optimal Designs of Neural Networks
- Lecture 32 - Optimal Designs of Neural Networks (Continued...)
- Lecture 33 - Neuro-Fuzzy System
- Lecture 34 - Neuro-Fuzzy System (Continued...)
- Lecture 35 - Neuro-Fuzzy System (Continued...)
- Lecture 36 - Neuro-Fuzzy System (Continued...)
- Lecture 37 - Concepts of Soft Computing and Expert Systems
- Lecture 38 - Concepts of Soft Computing and Expert Systems (Continued...)
- Lecture 39 - A Few Applications
- Lecture 40 - A Few Applications (Continued...)
- Lecture 41 - A Few Applications (Continued...)
- Lecture 42 - A Few Applications (Continued...)

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Entrepreneurship Essentials

Subject Co-ordinator - Prof. Manoj Kumar Mondal

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Economic Contributions of Entrepreneurs
- Lecture 2 - Definition, Motivation and Types of Entrepreneurship
- Lecture 3 - Vision, Mission and Values
- Lecture 4 - Entrepreneurial Qualities
- Lecture 5 - Two Inspiring Stories
- Lecture 6 - Myths and Realities around Entrepreneurship
- Lecture 7 - Causes of Failure of Startups
- Lecture 8 - Why Startups Fail (Continued...)
- Lecture 9 - Forms of Legal Entities
- Lecture 10 - Factors Driving Competitive Advantages
- Lecture 11 - Marketing for Startups - I
- Lecture 12 - Marketing for Startups - II
- Lecture 13 - Marketing for Startups - III
- Lecture 14 - Marketing Research
- Lecture 15 - Marketing Research (Continued...)
- Lecture 16 - Business Model Canvas
- Lecture 17 - Value Proposition Canvas
- Lecture 18 - Illustration of Business Model Canvas
- Lecture 19 - Features of Winning Business Models
- Lecture 20 - Business Model Innovation
- Lecture 21 - Identifying Opportunities Based on Trend
- Lecture 22 - Circle of Competence and Effectuation
- Lecture 23 - Lean Startup - I
- Lecture 24 - Lean Startup - II
- Lecture 25 - Lean Startup - III
- Lecture 26 - Design and Innovation - I
- Lecture 27 - Design and Innovation - II
- Lecture 28 - Design and Innovation - III
- Lecture 29 - Design and Innovation - IV

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- Lecture 30 - Design and Innovation - V
- Lecture 31 - Introduction to Financial Statements
- Lecture 32 - Introduction to Financial Statements (Continued...)
- Lecture 33 - Introduction to Financial Statements (Continued...)
- Lecture 34 - Introduction to Financial Statements (Continued...)
- Lecture 35 - Introduction to Financial Statements (Continued...)
- Lecture 36 - Introduction to Financial Statements (Continued...)
- Lecture 37 - Introduction to Financial Statements (Continued...)
- Lecture 38 - Depreciation and Amortization and Treatment of Capital Gain or Loss from Sale of Fixed Asset
- Lecture 39 - Cost, Volume, Profit
- Lecture 40 - Cost, Volume, Profit
- Lecture 41 - Founding Team and Early Recruits
- Lecture 42 - Business Plan - I
- Lecture 43 - Business Plan - II
- Lecture 44 - Pitching the Business Plan - I
- Lecture 45 - Pitching the Business Plan - II
- Lecture 46 - Funding New Venture - I
- Lecture 47 - Funding New Venture - II
- Lecture 48 - Funding New Venture - III
- Lecture 49 - Funding New Venture - IV
- Lecture 50 - Funding New Venture - V
- Lecture 51 - Some Dos and Donts
- Lecture 52 - Go-To-Market Strategies - I
- Lecture 53 - Go-To-Market Strategies - II
- Lecture 54 - Capital Budgeting Decisions
- Lecture 55 - Capital Budgeting Decisions (Continued...)
- Lecture 56 - Start up Valuation - I
- Lecture 57 - Start up Valuation - II
- Lecture 58 - Human Resource Management - I
- Lecture 59 - Human Resource Management - II
- Lecture 60 - Growth Strategies

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NPTEL Video Course - Multi Disciplinary - NOC:Roadmap for Patent Creation

Subject Co-ordinator - Prof. Gouri Gargate

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Roadmap for patent creation - Introduction
- Lecture 2 - Roadmap for patent creation - Property and IP
- Lecture 3 - Roadmap for patent creation - IPR
- Lecture 4 - Roadmap for patent creation - IP and future areas
- Lecture 5 - Roadmap for patent creation - Patent - Introduction
- Lecture 6 - Patent searching and analysis
- Lecture 7 - Patent-Definition
- Lecture 8 - Novelty
- Lecture 9 - Non obviousness
- Lecture 10 - Industrial application
- Lecture 11 - Parts of patent document
- Lecture 12 - Terminologies and codes used in a patent document
- Lecture 13 - How to read a patent ? - I
- Lecture 14 - How to read a patent ? - II
- Lecture 15 - How to read a patent ? - III
- Lecture 16 - Roadmap for patent creation - IP identification tool
- Lecture 17 - Roadmap for patent creation - Patentability tool
- Lecture 18 - Roadmap for patent creation - IP audit framework
- Lecture 19 - Roadmap for patent creation - Public patent databases
- Lecture 20 - Roadmap for patent creation - Capsule version
- Lecture 21 - Types of patent
- Lecture 22 - Patent filing procedure in India
- Lecture 23 - Patent timelines - India and PCT
- Lecture 24 - Inventions not patent in India
- Lecture 25 - Indicators for patentability
- Lecture 26 - Use of patent database for research/project topic identification
- Lecture 27 - Importance of laboratory notebook
- Lecture 28 - In which technical category my invention falls - IPC
- Lecture 29 - Patent - Statutory differences between India, Europe and USA

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- Lecture 30 - Identification of inventor and applicant and their rights
- Lecture 31 - Developing your own IP system
- Lecture 32 - When to publish and when to patent (confidentiality)
- Lecture 33 - Statutory exceptions (anticipation)
- Lecture 34 - Procedure for patent filing (Forms and fees)
- Lecture 35 - Interaction with IP attorney (Initial drafting, FER reply and hearing)
- Lecture 36 - Research/project planning
- Lecture 37 - Post patent filing requirements
- Lecture 38 - Patent commercialization
- Lecture 39 - Capsule version

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NPTEL Video Course - Multi Disciplinary - NOC:Accreditation and Outcome based Learning

Subject Co-ordinator - Prof. Shyamal Kumar Das Mandal

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction

Lecture 2 - Challenges and Needs of 21st Century Education

Lecture 3 - Accreditation

Lecture 4 - Accreditation (Continued...)

Lecture 5 - Outcome based Learning

Lecture 6 - Important Steps in Outcome based education

Lecture 7 - Introduction to Taxonomies of Learning and Cognitive Domains of Learning

Lecture 8 - Psychomotor Domain and Affective Domain of Learning

Lecture 9 - Instructional Objectives or Outcome

Lecture 10 - Need and Use of Instructional Objectives or Outcome

Lecture 11 - Example of Different Instructional Objectives or Outcome and their Cognitive Level

Lecture 12 - Outcome-based Curriculum Design

Lecture 13 - Outcome-based Curriculum Design (Continued...)

Lecture 14 - Outcome-based Curriculum Design software framework

Lecture 15 - Course outcome, Module outcome and lecture/unit outcome and teaching learning process

Lecture 16 - Mapping of outcome based curriculum with Graduate attribute

Lecture 17 - Introduction to Assessment and Evaluation

Lecture 18 - Formative Assessment and Summative Assessments

Lecture 19 - Test Item analysis

Lecture 20 - Test Item analysis (Continued...)

Lecture 21 - Evaluation Rubrics

Lecture 22 - Mission and Vision, Program Educational Objectives (PEOs), Program Outcome (PO) and their Consis

Lecture 23 - Mapping of course outcome and Program Outcome

Lecture 24 - Attainment of Program outcome and course outcome

Lecture 25 - Calculation of direct attainment

Lecture 26 - Calculation of Indirect Attainment

Lecture 27 - Introduction to Tutored Video Instruction (TVI)

Lecture 28 - TVI Learning Improvement Data - as reported in literature

Lecture 29 - Use of TVI as ELNET-3L program

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- Lecture 30 - Lessons on Good Teaching from ELNET-3L
- Lecture 31 - Evaluation of Teaching Quality
- Lecture 32 - Evaluation of Teaching Quality - A Research Proposal
- Lecture 33 - Evaluation of Teaching Quality - A Research Proposal (Continued...)
- Lecture 34 - Evaluation of Teaching Quality - A Research Proposal (Continued...)
- Lecture 35 - Assessment and Evaluation - to Improve Teaching
- Lecture 36 - Item Analysis - Theory and Practice
- Lecture 37 - Learning Styles and Learning Approaches
- Lecture 38 - Good Teaching Attributes and Characteristics
- Lecture 39 - Teacher Effectiveness Research
- Lecture 40 - Teacher Effectiveness Research (Continued...)
- Lecture 41 - Teaching Learning Process using Outcome based Education

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NPTEL Video Course - Multi Disciplinary - NOC:Introduction to Environmental Engineering and Science - Fundame

Subject Co-ordinator - Prof. Brajesh Kumar Dubey

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Sustainability Concepts - Innovations and Challenges

Lecture 2 - Sustainability Concepts - Innovations and Challenges

Lecture 3 - Basics and Sustainability Concepts and Evolution

Lecture 4 - Engineering for Sustainability

Lecture 5 - Life Cycle Thinking and Circular Economy

Lecture 6 - Mass Concentration Units

Lecture 7 - Partial Pressure Units

Lecture 8 - Other Types of Units

Lecture 9 - Units (Continued...), Qualitative and Quantitative Measurements

Lecture 10 - Quantative Measurements Basics

Lecture 11 - Ecology

Lecture 12 - Energy Flow and Ecological Concepts

Lecture 13 - Population

Lecture 14 - Population, Consumption and Biodiversity

Lecture 15 - Environmental Chemistry

Lecture 16 - Mass Balance and Reactor Systems

Lecture 17 - Mass Balance in Continuous Reactor / Continuous Stirred Tank Reactor (CSTR) and Plug Flow Reactor

Lecture 18 - Plug Flow Reactor and Energy Flow

Lecture 19 - Energy Balance and Earth Overshot Day

Lecture 20 - Mass Transport Processes

Lecture 21 - Oxygen Demand in Environmental Systems

Lecture 22 - BOD Examples, Oxygen Levels in Surface Waters, COD

Lecture 23 - Environmental Health Basics and SDGs

Lecture 24 - Field Applications

Lecture 25 - Nutrient Cycle

Lecture 26 - Environmental Risk

Lecture 27 - Risk Assessment Steps and EIA Introduction

Lecture 28 - Environmental Risk Assessments with Concepts of EIA and LCA

Lecture 29 - Environmental Risk Assessments with Concepts of EIA and LCA (Continued...)

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- Lecture 30 - Environmental Risk Assessments with Concepts of EIA and LCA (Continued...)
- Lecture 31 - Water Quantity
- Lecture 32 - Water Availability and Usage
- Lecture 33 - Population Forecasting
- Lecture 34 - Water Quality
- Lecture 35 - Water Quality (Continued...)
- Lecture 36 - Plain Sedimentation
- Lecture 37 - Coagulation
- Lecture 38 - Review of Sedimentation and Rapid Sand Filtration
- Lecture 39 - Disinfection and Water Supply
- Lecture 40 - Water Treatment Plant Visit
- Lecture 41 - Wastewater collection and characterization
- Lecture 42 - Sewerage System and Sewage Characteristics
- Lecture 43 - BOD Concepts and Preliminary Treatment of Wastewater
- Lecture 44 - Wastewater Treatment - I
- Lecture 45 - Activated Sludge Process and Sludge Disposal
- Lecture 46 - Introduction to Solid Waste Management
- Lecture 47 - Introduction to Solid Waste Management (Continued...)
- Lecture 48 - Components of Solid Waste Management
- Lecture 49 - Collection and Treatment
- Lecture 50 - Waste Disposal and Summary
- Lecture 51 - Basics of Air Pollution Issues - Global and Local
- Lecture 52 - Air Pollutants and Air Pollution Index
- Lecture 53 - Global Warming and Climate Change
- Lecture 54 - Air Pollution Models
- Lecture 55 - SDGs, Noise and Soil Pollution
- Lecture 56 - Present Issues and Few Case Studies
- Lecture 57 - Case Study - Solid Waste Management
- Lecture 58 - Case Study - Industrial Pollution and Disasters
- Lecture 59 - Case Study - Global Food Waste Initiatives
- Lecture 60 - Case Study - Global Food Waste and Resource Recovery

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NPTEL Video Course - Multi Disciplinary - NOC:Biophotonics

Subject Co-ordinator - Prof. Basudev Lahiri

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Introduction to Biophotonics - Part I
- Lecture 2 - Introduction to Biophotonics - Part II
- Lecture 3 - Introduction to Biophotonics - Part III
- Lecture 4 - Nature of Light - Part I (As Wave)
- Lecture 5 - Nature of Light - Part II (As Particle)
- Lecture 6 - Fact of Matter - Part I
- Lecture 7 - Fact of Matter - Part II
- Lecture 8 - Basic of Light-Matter Interaction
- Lecture 9 - Molecular Materials
- Lecture 10 - Introduction to Fluorescence
- Lecture 11 - The Cell
- Lecture 12 - The Central Dogma
- Lecture 13 - Genetic Code
- Lecture 14 - Building Blocks
- Lecture 15 - Remaining Topics
- Lecture 16 - Light-Matter Interactions in Molecules (Basic of Spectroscopy)
- Lecture 17 - Light-Matter Interactions in Molecules (Basic of Spectroscopy) (Continued...)
- Lecture 18 - Interaction of Light with Cells
- Lecture 19 - Interaction of Light with Tissues
- Lecture 20 - Photoprocesses in Biopolymers
- Lecture 21 - Laser Principles and Operation
- Lecture 22 - Types of Lasers
- Lecture 23 - Nonlinear Optical Processes
- Lecture 24 - In Vivo Photoexcitation
- Lecture 25 - Examples and Applications
- Lecture 26 - Introduction
- Lecture 27 - Microscopy Techniques
- Lecture 28 - Near Field Microscopy and Optical Coherence Tomography
- Lecture 29 - Fluorophores and Fluorescence Microscopy Techniques

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- Lecture 30 - The Future: AFM-IR
- Lecture 31 - Biosensing Background
- Lecture 32 - Optical Fiber Sensors
- Lecture 33 - Metamaterials
- Lecture 34 - Metamaterials as Biosensors
- Lecture 35 - Biosensing with Optical Nano-antennas
- Lecture 36 - Introduction to Photodynamic Therapy (PDT)
- Lecture 37 - Application of Photodynamic Therapy (PDT)
- Lecture 38 - Light Irradiation for Photodynamic Therapy (PDT)
- Lecture 39 - Real Life Examples of Photodynamic Therapy (PDT)
- Lecture 40 - Future of PDT and Photothermal Therapy (PTT)
- Lecture 41 - Laser Based Tissue Engineering
- Lecture 42 - Laser Tissue Contouring: Dermatological Application
- Lecture 43 - Laser Tissue Welding and Tissue Regeneration
- Lecture 44 - Laser Tissue Contouring: Ophthalmic Application
- Lecture 45 - Laser in Dentistry
- Lecture 46 - Tools for Micromanipulation
- Lecture 47 - The Optical/Laser Tweezer
- Lecture 48 - Design of Optical Tweezers
- Lecture 49 - Optical Scissors
- Lecture 50 - Selected Examples of Application
- Lecture 51 - Introduction to nanotechnology
- Lecture 52 - Processes of Nanotechnology
- Lecture 53 - Nano-Lithography: The Art of Small
- Lecture 54 - Thin Film Deposition
- Lecture 55 - Bionanophotonics Applications
- Lecture 56 - Introduction to Optogenetics
- Lecture 57 - Controlling the Brain with Light
- Lecture 58 - Optical Neuroimaging and Tomography
- Lecture 59 - Functional Near Infrared Spectroscopy (fNIRS) of the Brain
- Lecture 60 - Summary and Revisiting Few topics

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Neuroscience of Human Movement

Subject Co-ordinator - Prof. Varadhan

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 0 - Neuroscience of Human Movement
Lecture 1 - Membrane Physiology - Part 1
Lecture 2 - Membrane Physiology - Part 2
Lecture 3 - Nernst Equation
Lecture 4 - Goldman Equation
Lecture 5 - Action Potential - Part 1
Lecture 6 - Action Potential - Part 2
Lecture 7 - Action Potential - Part 3
Lecture 8 - Action Potential - Part 4
Lecture 9 - Action Potential - Part 5
Lecture 10 - Review of Action Potential and Neurotransmitters
Lecture 11 - Neuromuscular Junction
Lecture 12 - Disorders of Neuromuscular Junction
Lecture 13 - Skeletal Muscles - Part 1
Lecture 14 - Skeletal Muscles - Part 2
Lecture 15 - Skeletal Muscles - Part 3
Lecture 16 - Skeletal Muscles - Part 4
Lecture 17 - Muscle force production
Lecture 18 - Motor Units - Part 1
Lecture 19 - Motor Units - Part 2
Lecture 20 - Motor Units - PIC and EMG
Lecture 21 - Receptors - Part 1
Lecture 22 - Receptors - Part 2
Lecture 23 - Spine and Spinal Cord
Lecture 24 - Excitation and Inhibition within Spinal Cord - Part 1
Lecture 25 - Excitation and Inhibition within Spinal Cord - Part 2
Lecture 26 - Monosynaptic Reflexes - Part 1
Lecture 27 - Monosynaptic Reflexes - Part 2
Lecture 28 - Monosynaptic Reflexes - Part 3

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- Lecture 29 - Oligosynaptic and Polysynaptic Reflexes - Part 1
- Lecture 30 - Oligosynaptic and Polysynaptic Reflexes - Part 2
- Lecture 31 - Pre-Programmed Reactions - Part 1
- Lecture 32 - Pre-Programmed Reactions - Part 2
- Lecture 33 - Spinal Cord Injuries and Central Pattern Generators
- Lecture 34 - Animal Preparations for Neuroscience Experiments
- Lecture 35 - Overview of motor control system
- Lecture 36 - Terminology
- Lecture 37 - Primary Motor Cortex - Part 2
- Lecture 38 - Primary Motor Cortex - Part 3
- Lecture 39 - Primary Motor Cortex - Part 4
- Lecture 40 - Primary Motor Cortex - Part 5
- Lecture 41 - Primary Motor Cortex - Part 6
- Lecture 42 - Primary Motor Cortex - Part 7
- Lecture 43 - Primary Motor Cortex - Part 8
- Lecture 44 - Primary Motor Cortex - Part 9
- Lecture 45 - Primary Motor Cortex - Part 10
- Lecture 46 - Primary Motor Cortex - Part 11
- Lecture 47 - Primary Motor Cortex - Part 12
- Lecture 48 - Primary Motor Cortex - Part 13
- Lecture 49 - Primary Motor Cortex - Part 14
- Lecture 50 - Primary Motor Cortex - Part 15
- Lecture 51 - Cerebellum - Part 1
- Lecture 52 - Cerebellum - Part 2
- Lecture 53 - Cerebellum - Part 3
- Lecture 54 - Cerebellum - Part 4
- Lecture 55 - Cerebellum - Part 5
- Lecture 56 - Cerebellum - Part 6
- Lecture 57 - Cerebellum - Part 7
- Lecture 58 - Cerebellum - Part 8
- Lecture 59 - Cerebellum - Part 9
- Lecture 60 - Cerebellum - Part 10
- Lecture 61 - Cerebellum - Part 11
- Lecture 62 - Cerebellum - Part 12
- Lecture 63 - Basal Ganglia - Part 1
- Lecture 64 - Basal Ganglia - Pathways
- Lecture 65 - Basal Ganglia - Inputs
- Lecture 66 - Basal Ganglia - Outputs
- Lecture 67 - Basal Ganglia - Various Functions

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 68 - Basal Ganglia - Motor Functions
- Lecture 69 - Basal Ganglia - Motor Functions.
- Lecture 70 - Basal Ganglia - Dopamine and Acetylcholine
- Lecture 71 - Basal Ganglia - Disorders
- Lecture 72 - Parkinson's Disease - Intro
- Lecture 73 - Parkinson's Disease - Rate Model, Pathophysiology
- Lecture 74 - Parkinson's Disease - Current therapeutic approaches and the future
- Lecture 75 - Basal Ganglia - Various Disorders
- Lecture 76 - Neuropsychiatric disorders due to BG dysfunction
- Lecture 77 - Parietal and Premotor Cortex - Part 1
- Lecture 78 - Parietal and Premotor Cortex - Part 2
- Lecture 79 - Parietal and Premotor Cortex - Part 3
- Lecture 80 - Parietal and Premotor Cortex - Part 4
- Lecture 81 - Parietal and Premotor Cortex - Part 5
- Lecture 82 - Parietal and Premotor Cortex - Part 6

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Manage TB

Subject Co-ordinator - Dr. M S Jawahar, Dr.V.V.Banu Rekha, Prof. Mohan Natrajan

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - How is TB affecting public health Globally and Nationally

Lecture 2 - Epidemiology of TB-Session - 1

Lecture 3 - Epidemiology of TB-Session - 2

Lecture 4 - Pathogenesis of TB-Session - 1

Lecture 5 - Pathogenesis of TB-Session - 2

Lecture 6 - Clinical manifestations of TB-Session - 1

Lecture 7 - Clinical manifestations of TB-Session - 2

Lecture 8 - Clinical manifestations of TB-Session - 3

Lecture 9 - Bacteriological Diagnosis of Tuberculosis - Smear and Culture

Lecture 10 - Demonstration of processing of sputum specimen for culture for diagnosis of tuberculosis

Lecture 11 - Demonstration of sputum smear examination for diagnosis of tuberculosis

Lecture 12 - Demonstration of solid culture method for diagnosis of tuberculosis

Lecture 13 - Demonstration of liquid culture method for diagnosis of tuberculosis in sputum

Lecture 14 - Phenotypic drug susceptibility testing in Tuberculosis

Lecture 15 - Demonstration of drug susceptibility testing of first line anti-TB drugs by liquid culture

Lecture 16 - Molecular Diagnosis of Tuberculosis-Session - 1

Lecture 17 - Molecular Diagnosis of Tuberculosis-Session - 2

Lecture 18 - Demonstration of Xpert MTB-RIF assay for diagnosis of tuberculosis from sputum specimens

Lecture 19 - Demonstration of Line Probe Assay (LPA) (Direct detection of tuberculosis and resistance to isoniazid)

Lecture 20 - Radiology in diagnosis of Tuberculosis-Session - 1

Lecture 21 - Radiology in diagnosis of Tuberculosis-Session - 2

Lecture 22 - Radiology in diagnosis of Tuberculosis-Session - 3

Lecture 23 - Radiology in diagnosis of Tuberculosis-Session - 4

Lecture 24 - Approach to diagnosis of Pulmonary TB

Lecture 25 - Case Discussion-Approach to diagnosis of TB in a person with presumptive pulmonary TB

Lecture 26 - Case Discussion-Approach to diagnosis of pulmonary TB in a patient with negative sputum smear for TB

Lecture 27 - Approach to diagnosis of Extra-pulmonary TB

Lecture 28 - Case Discussion-Approach to diagnosis of TB in a person with swelling in the neck

Lecture 29 - Case Discussion-Approach to diagnosis of TB spine

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - Diagnosis of Childhood Tuberculosis-Session - 1
- Lecture 31 - Diagnosis of Childhood Tuberculosis-Session - 2
- Lecture 32 - Video demonstration of gastric fluid aspiration technique in a child
- Lecture 33 - Case Discussion-Approach to diagnosis of TB in a child with presumptive pulmonary TB
- Lecture 34 - Case Discussion-Approach to diagnosis of TB meningitis in a child
- Lecture 35 - Drugs for treating Tuberculosis and Principles of Chemotherapy-Session - 1
- Lecture 36 - Drugs for treating Tuberculosis and Principles of Chemotherapy-Session - 2
- Lecture 37 - Treatment of Drug Sensitive Pulmonary Tuberculosis
- Lecture 38 - Case discussion-Approach to treatment of drug sensitive TB
- Lecture 39 - Management of drug resistant Tuberculosis-Session - 1
- Lecture 40 - Management of drug resistant Tuberculosis-Session - 2
- Lecture 41 - Case discussion-Approach to treatment of Multi-drug resistant TB (MDR-TB)/ Extensively drug resistant TB
- Lecture 42 - Management of Extra-pulmonary Tuberculosis-Session - 1
- Lecture 43 - Management of Extra-pulmonary Tuberculosis-Session - 2
- Lecture 44 - Panel discussion-Practical difficulties in the management of Extra-pulmonary TB
- Lecture 45 - Management of patients with HIV-TB coinfection-Session - 1
- Lecture 46 - Management of patients with HIV-TB coinfection-Session - 2
- Lecture 47 - Case discussion-Approach to management of HIV-TB
- Lecture 48 - Management of TB in special situations
- Lecture 49 - Case discussion-Approach to management of TB in pregnancy
- Lecture 50 - Treatment of Pediatric Tuberculosis-Session - 1
- Lecture 51 - Treatment of Pediatric Tuberculosis-Session - 2
- Lecture 52 - Management of Adverse effects to anti-TB drugs-Session - 1
- Lecture 53 - Management of Adverse effects to anti-TB drugs-Session - 2
- Lecture 54 - Case discussion-Approach to management of jaundice during anti-TB treatment
- Lecture 55 - Case discussion-Approach to management of skin rashes during anti-TB treatment
- Lecture 56 - Non-tuberculous Mycobacteria- Diagnosis and Clinical management-Session - 1
- Lecture 57 - Non-tuberculous Mycobacteria - Diagnosis and Clinical Management Session - 2
- Lecture 58 - Newer Anti-TB drugs and regimens-Session - 1
- Lecture 59 - Newer Anti-TB drugs and regimens-Session - 2
- Lecture 60 - Management of Latent TB Infection-Session - 1
- Lecture 61 - Management of Latent TB Infection-Session - 2
- Lecture 62 - Airborne infection control in tuberculosis-Session - 1
- Lecture 63 - Airborne infection control in tuberculosis-Session - 2
- Lecture 64 - Vaccine for Tuberculosis-Session - 1
- Lecture 65 - Vaccine for Tuberculosis-Session - 2
- Lecture 66 - Services offered by Revised National TB Control Programme (RNTCP)-Session - 1
- Lecture 67 - Services offered by Revised National TB Control Programme (RNTCP)-Session - 2
- Lecture 68 - Services offered by Revised National TB Control Programme (RNTCP)-Session - 3

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 69 - Services offered by Revised National TB Control Programme (RNTCP)-Session - 4
- Lecture 70 - Tuberculosis notification-Session - 1
- Lecture 71 - Tuberculosis notification-Session - 2
- Lecture 72 - Addressing Social Barriers in Tuberculosis Control-Session - 1
- Lecture 73 - Addressing Social Barriers in Tuberculosis Control-Session - 2
- Lecture 74 - Standards for TB Care in India-Session - 1
- Lecture 75 - Standards for TB Care in India-Session - 2
- Lecture 76 - Global Tuberculosis Control Strategies

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Ecology and Environment

Subject Co-ordinator - Dr. Abhijit P. Deshpande

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Sustainability
- Lecture 2 - Dams
- Lecture 3 - Dams
- Lecture 4 - Adayar River
- Lecture 5 - Adayar River
- Lecture 6 - Urbanisation in Western Ghats and Biodiesel
- Lecture 7 - Use And Throw Plastic
- Lecture 8 - Nano Materials Information Technology
- Lecture 9 - Definition of Health Risk
- Lecture 10 - Transport Of Pollutants in the Environment
- Lecture 11 - Assesment of Risk
- Lecture 12 - Remediation and Liability
- Lecture 13 - Remendiation and Liability
- Lecture 14 - Life Cycle Analysis
- Lecture 15 - Energy and Environment module - 1
- Lecture 16 - Energy and Environment module - 2
- Lecture 17 - Energy and Environment module - 3
- Lecture 18 - Energy and Environment module - 4
- Lecture 19 - Energy and Environment module - 5
- Lecture 20 - Energy and Environment module - 6
- Lecture 21 - Energy and Environment module - 7
- Lecture 22 - Drinking Water Supply
- Lecture 23 - Drinking Water Supply
- Lecture 24 - Water Quality Standards And Philosophy of Water Treatment
- Lecture 25 - Water Treatment
- Lecture 26 - Wastewater Management in Developing Urban Environments
- Lecture 27 - Wastewater Recycling
- Lecture 28 - Sustainable Water Management In Urban Areas - Part 1
- Lecture 29 - Sustainable Water Management In Urban Areas - Part 2

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - Ground Water Contamination
- Lecture 31 - Groundwater - Sanitation Nexus
- Lecture 32 - Chasing Sustainability - The Challenge - Part 1
- Lecture 33 - Chasing Sustainability - The Challenge - Part 2
- Lecture 34 - Developing Frame Works Of Action
- Lecture 35 - Developing Frame Works Of Action
- Lecture 36 - Social And sanitation
- Lecture 37 - Promoting Policies For Eco-Productive Cities in the global House - Part 1
- Lecture 38 - Promoting Policies For Eco-Productive Cities in the global House - Part 2
- Lecture 39 - The need to study ecology
- Lecture 40 - Ecosystem functions and services
- Lecture 41 - What is studied in ecology?
- Lecture 42 - Ecological footprint
- Lecture 43 - Energy and Material flow in ecosystems and ecological efficiency
- Lecture 44 - Energy flow, productivity and Biodiversity
- Lecture 45 - Biodiversity, population and ecological principles

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Current Regulatory Requirements for Conducting Clinical Trials

Subject Co-ordinator - Prof. Nandini K Kumar, Prof. Sucheta Banerjee Kurundkar, Prof. A. B. Ramteke

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - C1 - L00

Lecture 2 - C1 - Introduction Assorted Interviews

Lecture 3 - C1 - L01

Lecture 4 - C1 - L02

Lecture 5 - C1 - L03

Lecture 6 - C1 - L04

Lecture 7 - C1 - L05

Lecture 8 - C1 - L06

Lecture 9 - C1 - L07

Lecture 10 - C1 - L08

Lecture 11 - C1 - L09

Lecture 12 - C1 - L10A

Lecture 13 - C1 - L10B

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Regulatory Requirements for Medical Devices and IVD kits in India

Subject Co-ordinator - Prof. A. B. Ramteke, Prof. Malay Mitra

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - C2 - Introduction Assorted Interviews

Lecture 2 - C2 - L00

Lecture 3 - C2 - L01

Lecture 4 - C2 - L02

Lecture 5 - C2 - L03

Lecture 6 - C2 - L04

Lecture 7 - C2 - L05

Lecture 8 - C2 - L06

Lecture 9 - C2 - L07

Lecture 10 - C2 - L08

Lecture 11 - C2 - L09

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Numerical Methods for Engineers

Subject Co-ordinator - Dr. Niket S.Kaisare

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Introduction
- Lecture 2 - Overview of Learning Modules
- Lecture 3 - Course Plan
- Lecture 4 - Tutorial
- Lecture 5 - Errors and Approximations
- Lecture 6 - Truncation and Round-Off Errors
- Lecture 7 - Binary Numbers
- Lecture 8 - Floating Point
- Lecture 9 - Floating Point in Binary system
- Lecture 10 - Iterative Method
- Lecture 11 - Direct Method
- Lecture 12 - Sequential Method
- Lecture 13 - Linear Algebra
- Lecture 14 - Introduction to Linear Equations
- Lecture 15 - Rank Condition for Solving Linear Equations
- Lecture 16 - Motivating Gauss Elimination
- Lecture 17 - Gauss Elimination
- Lecture 18 - Tutorial Recap
- Lecture 19 - Back Substitution to find solution
- Lecture 20 - Gauss Jordan and LU Decomposition
- Lecture 21 - Partial Pivoting in Gauss Elimination
- Lecture 22 - Analysis of Gauss Elimination
- Lecture 23 - Tri-Diagonal Systems
- Lecture 24 - Thomas Algorithm for Tri-Diagonal Systems
- Lecture 25 - Gauss Siedel Method
- Lecture 26 - Analysis of Gauss Siedel Method
- Lecture 27 - Gauss Siedel vs. Jacobi Methods
- Lecture 28 - Bonus
- Lecture 29 - Summary

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - Introduction to Nonlinear Equations
- Lecture 31 - Bisection Method
- Lecture 32 - Analysis of Bisection Method
- Lecture 33 - Bonus
- Lecture 34 - Regula-Falsi Method
- Lecture 35 - Bonus
- Lecture 36 - Regula-Falsi vs. Secant Method
- Lecture 37 - Bonus
- Lecture 38 - Some special cases
- Lecture 39 - Fixed-Point Iteration
- Lecture 40 - Newton-Raphson Method
- Lecture 41 - Analysis of Fixed-Point Iteration
- Lecture 42 - Analysis of Newton-Raphson
- Lecture 43 - Problems with Newton-Raphson
- Lecture 44 - Multi-Variable Fixed-Point Iteration
- Lecture 45 - Multi-Variable Newton-Raphson
- Lecture 46 - Out of Syllabus
- Lecture 47 - Out of Syllabus
- Lecture 48 - Summary
- Lecture 49 - Introduction
- Lecture 50 - Linear Regression in One Variable
- Lecture 51 - Recap
- Lecture 52 - Bonus
- Lecture 53 - Linear Regression in Multiple Variables
- Lecture 54 - Matrix Method for Multi-Linear Regression
- Lecture 55 - Polynomial Regression
- Lecture 56 - Functional Regression
- Lecture 57 - Bonus
- Lecture 58 - Interpolation
- Lecture 59 - Bonus
- Lecture 60 - Lagrange Interpolating Polynomials
- Lecture 61 - Newton's Forward Difference Polynomial
- Lecture 62 - Newton's Divided Differences
- Lecture 63 - Interpolation Examples
- Lecture 64 - Bonus
- Lecture 65 - Summary
- Lecture 66 - Numerical Differentiation
- Lecture 67 - Numerical Differentiation Formula and Analysis
- Lecture 68 - Derivation using Method of undetermined coefficients

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 69 - Three-point differentiation formulae
- Lecture 70 - Bonus
- Lecture 71 - Truncation vs. Round-Off Errors
- Lecture 72 - Numerical Differentiation Examples
- Lecture 73 - Summary of Numerical Differentiation
- Lecture 74 - Numerical Integration
- Lecture 75 - Trapezoidal rule and Derivation
- Lecture 76 - Simpson's Rules for Integration
- Lecture 77 - Bonus
- Lecture 78 - Error Analysis for Simpson's Rules
- Lecture 79 - Numerical Integration Examples
- Lecture 80 - Bonus
- Lecture 81 - Summary of Newton Cotes Formulae
- Lecture 82 - Richardson's Extrapolation
- Lecture 83 - Gauss Quadrature
- Lecture 84 - Summary of Numerical Integration
- Lecture 85 - Introduction to ODE-IVP
- Lecture 86 - Motivation using an Example (Bonus)
- Lecture 87 - Euler's Methods and Second-Order Methods
- Lecture 88 - Second-Order Runge-Kutta Methods
- Lecture 89 - Summary of RK-2
- Lecture 90 - Higher order RK Methods
- Lecture 91 - Bonus
- Lecture 92 - Bonus
- Lecture 93 - Summary and Recap
- Lecture 94 - Introduction to Predictor-Corrector Methods
- Lecture 95 - Stability of Implicit Methods
- Lecture 96 - Stability Analysis of Euler's Methods
- Lecture 97 - Extension to multiple variables
- Lecture 98 - Local vs. Global Truncation Errors
- Lecture 99 - Richardson's Extrapolation
- Lecture 100 - Stiff System of ODEs
- Lecture 101 - Adaptive Step-sizing
- Lecture 102 - Adaptive step-sizing and Embedded Methods
- Lecture 103 - Bonus
- Lecture 104 - Summary and Recap (Weeks 10 and 11)
- Lecture 105 - Introduction to ODE-BVP
- Lecture 106 - Shooting Method
- Lecture 107 - Finite Difference Method

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- Lecture 108 - Solution using Shooting Method
- Lecture 109 - Algorithm for Shooting Method
- Lecture 110 - Problems with Shooting Method
- Lecture 111 - Solving ODE-BVP using Finite Difference Method
- Lecture 112 - Microsoft Excel based Solution
- Lecture 113 - Recap of Week-12 (ODE-BVP)

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - Basic Course in Biomedical Research

Subject Co-ordinator - Dr. Sanjay Mehendale

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Introduction to health research
- Lecture 2 - Formulating research question
- Lecture 3 - Literature review
- Lecture 4 - Measures of disease frequency
- Lecture 5 - Descriptive study designs
- Lecture 6 - Analytical study designs
- Lecture 7 - Experimental study designs
- Lecture 8 - Validity of epidemiological studies
- Lecture 9 - Qualitative research methods
- Lecture 10 - Measurement of study variables
- Lecture 11 - Sampling methods
- Lecture 12 - Calculating sample size and power
- Lecture 13 - Selection of study population
- Lecture 14 - Study plan and project management
- Lecture 15 - Designing data collection tools
- Lecture 16 - Principles of data collection
- Lecture 17 - Data management
- Lecture 18 - Overview of data analysis
- Lecture 19 - Ethical framework for health research
- Lecture 20 - Conducting clinical trails
- Lecture 21 - Preparing a concept paper for research projects
- Lecture 22 - Elements of a protocol for research studies

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Thermodynamics

Subject Co-ordinator - Prof. Anand T. N. C

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Basic concepts and definitions - Part 1
- Lecture 2 - Basic concepts and definitions - Part 2
- Lecture 3 - Basic concepts and definitions - Part 3
- Lecture 4 - Tutorial problems on exact and inexact differential
- Lecture 5 - Basic concepts and definitions - Part 4
- Lecture 6 - Work - Part 1
- Lecture 7 - Work - Part 2
- Lecture 8 - Work - Part 3
- Lecture 9 - Work - Part 4
- Lecture 10 - Work - Part 5
- Lecture 11 - Tutorial problem on 'Work' - Part 1
- Lecture 12 - Tutorial problem - Part 2
- Lecture 13 - Tutorial problem on 'Work' - Part 3
- Lecture 14 - Tutorial problem on 'Work' - Part 4
- Lecture 15 - Zeroth law of thermodynamics
- Lecture 16 - Methods of temperature measurement
- Lecture 17 - Modes of heat transfer
- Lecture 18 - Tutorial problem on 'Modes of heat transfer'
- Lecture 19 - Tutorial problem on 'Methods of temperature measurement'
- Lecture 20 - First law of thermodynamics
- Lecture 21 - Tutorial problem
- Lecture 22 - Tutorial problem
- Lecture 23 - Heat and work interactions for a system
- Lecture 24 - Tutorial problem - Part 1
- Lecture 25 - Pure substance
- Lecture 26 - Tutorial problem - Part 2
- Lecture 27 - Ideal gas - Part 1
- Lecture 28 - Ideal gas - Part 2
- Lecture 29 - Tutorial problem - Part 3

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - Tutorial problem - Part 4
- Lecture 31 - Tutorial problem - Part 5
- Lecture 32 - Specific heats at constant pressure and constant volume
- Lecture 33 - Tutorial problem - Part 6
- Lecture 34 - Tutorial problem - Part 7
- Lecture 35 - Ideal gas - Part 3
- Lecture 36 - Ideal gas - Part 4
- Lecture 37 - Ideal gas - Part 5
- Lecture 38 - Tutorial problem - Part 1
- Lecture 39 - Tutorial problem - Part 2
- Lecture 40 - Tutorial problem - Part 3
- Lecture 41 - Tutorial problem - Part 4
- Lecture 42 - Beyond ideal gases - Part 1
- Lecture 43 - Beyond ideal gases - Part 2
- Lecture 44 - Two phase system - Part 1
- Lecture 45 - Two phase system - Part 2
- Lecture 46 - Two phase system
- Lecture 47 - Tutorial problems (2 numbers)
- Lecture 48 - Tutorial problem - Part 1
- Lecture 49 - Tutorial problem - Part 2
- Lecture 50 - Tutorial problem - Part 3
- Lecture 51 - Tutorial problems on two-phase systems (2 numbers)
- Lecture 52 - Tutorial problem (1 number)
- Lecture 53 - Rate equation of the first law of thermodynamics for a control mass and a control volume
- Lecture 54 - Energy equation for a steady-state, steady-flow process in selected engineering devices
- Lecture 55 - Tutorial problems (3 numbers)
- Lecture 56 - Tutorial problem - Part 1
- Lecture 57 - Tutorial problem - Part 2
- Lecture 58 - Quasi-static process revisited
- Lecture 59 - Second law of thermodynamics
- Lecture 60 - Second law of thermodynamics
- Lecture 61 - Second law of thermodynamics
- Lecture 62 - Second law of thermodynamics
- Lecture 63 - Second law of thermodynamics
- Lecture 64 - Second law of thermodynamics
- Lecture 65 - Tutorial problems (2 numbers)
- Lecture 66 - Tutorial problem (1 number)
- Lecture 67 - Tutorial problem (1 number)
- Lecture 68 - Tutorial problem (2 numbers)

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 69 - Second law of thermodynamics
- Lecture 70 - Entropy - Part 1
- Lecture 71 - Tutorial problem (1 number)
- Lecture 72 - Entropy - Part 2
- Lecture 73 - Entropy - Part 3
- Lecture 74 - Entropy - Part 4
- Lecture 75 - Tutorial problem (1 number)
- Lecture 76 - Tutorial problem (1 number)
- Lecture 77 - Tutorial problems (2 numbers)
- Lecture 78 - Entropy - Part 5
- Lecture 79 - Entropy - Part 6
- Lecture 80 - Entropy - Part 7
- Lecture 81 - Exergy - Part 1
- Lecture 82 - Exergy - Part 2
- Lecture 83 - Exergy - Part 3
- Lecture 84 - Thermodynamics cycles
- Lecture 85 - Tutorial problem (1 number)
- Lecture 86 - Thermodynamics cycles
- Lecture 87 - Tutorial problem (1 number)
- Lecture 88 - Thermodynamics cycles
- Lecture 89 - Tutorial problem (1 number)

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Regulatory Requirements for Medical Devices including in Vitro

Subject Co-ordinator - Prof. Malay Mitra, Prof. Aseem Sahu, Prof. Arun B.Ramteke

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Courses Overview

Lecture 2 - Medical device and in vitro diagnostics

Lecture 3 - Medical Device Rules, 2017

Lecture 4 - Classification of medical devices

Lecture 5 - Labelling of medical devices and in vitro diagnostics

Lecture 6 - Standards of medical device, quality assurance and testing

Lecture 7 - Regulatory requirements of biocompatibility of medical devices and ISO 10993

Lecture 8 - Clinical investigation of medical devices, regulation of investigational medical devices

Lecture 9 - Quality assurance and quality management system

Lecture 10 - How to obtain a licence to manufacture a medical device?

Lecture 11 - ISO 14971 (Medical devices)

Lecture 12 - Inspection of medical device and IVD establishments

Lecture 13 - Import and export of medical devices and IVDs

Lecture 14 - Medical device regulation

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Current Regulatory Requirements for Conducting Clinical Trials

Subject Co-ordinator - Prof. Nandini K Kumar, Prof. Y. K. Gupta, Prof. D. K. Sable, Prof. Arun B. Ramteke, Pr

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Courses Overview

Lecture 2 - Overview of Indian regulatory system

Lecture 3 - Overview of Drugs and Cosmetics Act and Rules thereunder

Lecture 4 - Overview of New Drugs and Clinical Trials Rules, 2019

Lecture 5 - Pre-Clinical Data Requirements

Lecture 6 - Rules Governing Clinical Trials

Lecture 7 - Phases of clinical trial, forms, and fees

Lecture 8 - Regulatory pathway and data requirements for NDCT, 2019

Lecture 9 - BA/BE study and study centers

Lecture 10 - Guidelines to conduct BA/BE studies

Lecture 11 - Ethics Committee registration and re-registration

Lecture 12 - Ethical Considerations

Lecture 13 - Good Clinical Practice

Lecture 14 - Requirements for import/manufacture of new drug/IND for conducting clinical trials in India

Lecture 15 - Requirements for import/manufacture of new drug/IND for sale/ distribution and unapproved new dr

Lecture 16 - Important issues

Lecture 17 - Special concern

Lecture 18 - Clinical trial related guidelines (NDCT Rules)

Lecture 19 - Content of Proposed Clinical Trial Protocol

Lecture 20 - Content of a Clinical Trial Report

Lecture 21 - Post Marketing Assessment and Clinical Trial Compensation

Lecture 22 - Common observations during submission of CT/BA/BE protocol

Lecture 23 - Common observations during CT/BA/BE centre inspections

Lecture 24 - Drug development process

Lecture 25 - Salient feature of NDCT 2019 - what's new in NDCT?

Lecture 26 - Online Submission 23A

Lecture 27 - Online Submission (CTRI)

Lecture 28 - Tables Given in NDCT 2019 and its Content

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Model Predictive Control: Theory and Applications

Subject Co-ordinator - Dr. Niket S.Kaisare

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Course Background: Model Predictive Control
Lecture 2 - Course Outline
Lecture 3 - Additional MATLAB Video - Array Operations
Lecture 4 - Additional MATLAB Video - Array Operations
Lecture 5 - Recap: Linear Algebra
Lecture 6 - Recap: Differential and Difference Equations
Lecture 7 - Recap: Process Control Basics
Lecture 8 - Introduction to Model Predictive Control
Lecture 9 - MPC: Salient Features
Lecture 10 - MPC: Historical Perspective
Lecture 11 - Vectors and Matrices
Lecture 12 - Vector Spaces
Lecture 13 - Linear Operation
Lecture 14 - Null and Image Spaces
Lecture 15 - Eigenvalues and Eigenvectors
Lecture 16 - Eigenvalue Decomposition and Tutorial
Lecture 17 - Recap of Week-2
Lecture 18 - Model Classification
Lecture 19 - Discrete-Time Models Overview
Lecture 20 - Discrete-Time Models
Lecture 21 - Finite Impulse Response Models
Lecture 22 - Finite Step Response Models
Lecture 23 - Recap and Plan for Week-4
Lecture 24 - State Space and Step Response Models
Lecture 25 - Nonlinear Models and Model Linearization
Lecture 26 - Model Types and Model Conversion
Lecture 27 - Model Conversion - 2
Lecture 28 - Model Conversion: TF to SS
Lecture 29 - How to handle MIMO systems

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - Discretization of State-Space Models
- Lecture 31 - Introduction to Dynamic Matrix Control (DMC)
- Lecture 32 - The DMC Algorithm: Future Predictions
- Lecture 33 - The DMC Algorithm: Objective and Constraints
- Lecture 34 - The DMC Algorithm: Optimization
- Lecture 35 - Coding for DMC Algorithm: Setup
- Lecture 36 - Coding for DMC Algorithm: Populate Matrices
- Lecture 37 - Recap of DMC Algorithm
- Lecture 38 - Extensions of DMC Algorithm
- Lecture 39 - LTI Models and Coordinate Transform
- Lecture 40 - LTI Models: Stability
- Lecture 41 - LTI Models: Controllability
- Lecture 42 - LTI Models: Conditions for controllability
- Lecture 43 - Tutorial by Arvind (Recap of Controllability)
- Lecture 44 - LTI Models: Observability
- Lecture 45 - Linear Control: Introduction
- Lecture 46 - Pole Placement Controller
- Lecture 47 - Linear Quadratic Regulator: Batch Solution
- Lecture 48 - LQR: Dynamic Programming Solution
- Lecture 49 - State Estimation: Introduction
- Lecture 50 - Stochastic Processes and Random Variables
- Lecture 51 - State Estimation: Pole Placement Observer
- Lecture 52 - Kalman Filter: Terminology
- Lecture 53 - Kalman Filter: Derivation
- Lecture 54 - Recap of Modules 7-9
- Lecture 55 - Recap and Plan for this week
- Lecture 56 - Linear Quadratic Gaussian
- Lecture 57 - LQG Derivation and Separation Principle
- Lecture 58 - Setpoint Tracking in LQ Control
- Lecture 59 - Disturbance Rejection in LQ Control
- Lecture 60 - Disturbance Modeling for Estimation
- Lecture 61 - Estimation with Disturbance Modeling
- Lecture 62 - Recap and Plan for this week
- Lecture 63 - State-Space MPC: Deterministic case
- Lecture 64 - Extension to Measured Disturbances
- Lecture 65 - Offset-Free State Space MPC
- Lecture 66 - Comparison of State-Space MPC with DMC
- Lecture 67 - State-Space MPC: Disturbance Modeling
- Lecture 68 - Disturbance Modeling: Background and Setup

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- Lecture 69 - Stochastic Output-Feedback State-Space MPC
- Lecture 70 - Bonus Video: Disturbance Modeling for State Space MPC
- Lecture 71 - Self-Guided Tutorial of MPC Toolbox
- Lecture 72 - Help Session: Using MPC Toolbox
- Lecture 73 - Recap of LQ Control and Linear MPC
- Lecture 74 - Linear MPC - Key Features and Results
- Lecture 75 - Practical Issues: Inferential Control
- Lecture 76 - Practical Issues: Measurement Delay
- Lecture 77 - Other Practical Issues
- Lecture 78 - Some Classical Examples of MPC

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Teaching and Learning in Engineering (TALE)

Subject Co-ordinator - Prof. N.J. Rao

Co-ordinating Institute - IISc - Bangalore

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Overview of TALE and Good Engineer
- Lecture 2 - Education and Teaching
- Lecture 3 - Learning, Instruction and Assessment
- Lecture 4 - What is OBE?
- Lecture 5 - Accreditation
- Lecture 6 - Outcomes
- Lecture 7 - Program Outcomes - 1
- Lecture 8 - Program Outcomes - 2
- Lecture 9 - Taxonomy of Learning
- Lecture 10 - Cognitive Levels
- Lecture 11 - General Categories of Knowledge
- Lecture 12 - Metacognitive Knowledge
- Lecture 13 - Vincenti Categories of Engineering Knowledge
- Lecture 14 - Affective and Psychomotor Domains
- Lecture 15 - Taxonomy Table
- Lecture 16 - Course Outcomes - 1
- Lecture 17 - Course Outcomes - 2
- Lecture 18 - Course Outcomes - POs and PSOs
- Lecture 19 - Attainment of COs
- Lecture 20 - Attainment of POs and PSOs

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:Teaching and Learning in General Programs

Subject Co-ordinator - Prof. N.J. Rao

Co-ordinating Institute - IISc - Bangalore

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Teaching and Learning in General Programs (TALG)

Lecture 2 - Education and Teaching

Lecture 3 - Learning, Assessment and Instruction

Lecture 4 - Outcome Based Education (OBE)

Lecture 5 - Accreditation

Lecture 6 - Program Outcomes

Lecture 7 - POs and PSOs

Lecture 8 - Taxonomy of Learning

Lecture 9 - Taxonomy of Learning

Lecture 10 - Taxonomy of Learning

Lecture 11 - Taxonomy of Learning

Lecture 12 - Affective Domain

Lecture 13 - Psychomotor Domain

Lecture 14 - Taxonomy Tables

Lecture 15 - Course Outcomes - 1

Lecture 16 - Course Outcomes - 2

Lecture 17 - Tagging the Course Outcomes

Lecture 18 - Attainment of Course Outcomes

Lecture 19 - Attainment of POs and PSOs

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:TALE 2 - Course Design and Instruction of Engineering Courses

Subject Co-ordinator - Prof K Rajani Kanth

Co-ordinating Institute - IISc - Bangalore

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Engineering Programs, NBA Accreditation and Engineering Courses

Lecture 2 - Course Design

Lecture 3 - ISD and ADDIE

Lecture 4 - Analysis Phase - 1

Lecture 5 - Analysis Phase - 2

Lecture 6 - Design Phase

Lecture 7 - Technology and Targets

Lecture 8 - Assessment Pattern and Assessment Instruments

Lecture 9 - Item Banks

Lecture 10 - Development Phase

Lecture 11 - Instruction Material and Learning Material

Lecture 12 - Implement Phase - 1

Lecture 13 - Implement Phase - 2

Lecture 14 - Evaluate Phase

Lecture 15 - Course Exit Survey

Lecture 16 - Evaluating Laboratories and Electives

Lecture 17 - Exit Surveys for Projects

Lecture 18 - Summary Feedback

Lecture 19 - Instruction

Lecture 20 - Instructional Situations

Lecture 21 - How Brains Learn - 1

Lecture 22 - How Brains Learn - 2

Lecture 23 - How Brains Learn - 3

Lecture 24 - Instructional Components - 1

Lecture 25 - Instructional Components - 2

Lecture 26 - Merrill's Principles of Learning

Lecture 27 - ID based on Merrill's Principles

Lecture 28 - Direct Approach to Instruction

Lecture 29 - Project Based Approach to Instruction

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - Problem Based Approach to Instruction
- Lecture 31 - Experiential Approach to Instruction
- Lecture 32 - Simulation Approach to Instruction
- Lecture 33 - Instruction for Design
- Lecture 34 - Instruction for Metacognitive Learning
- Lecture 35 - So, what should a teacher do?

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Multi Disciplinary - NOC:NBA Accreditation and Teaching Learning in Engineering (NATE)

Subject Co-ordinator - Prof. N J Rao, Prof. K. Rajanikanth

Co-ordinating Institute - IISc - Bangalore

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - NATE
- Lecture 2 - NBA Accreditation
- Lecture 3 - Outcome Based Education
- Lecture 4 - Self Assessment Report
- Lecture 5 - Education, Teaching, Learning, Instruction, and Assessment
- Lecture 6 - PEOs and POs (1-5)
- Lecture 7 - POs (6-9)
- Lecture 8 - POs (10-12)
- Lecture 9 - PSOs
- Lecture 10 - Taxonomy of Learning
- Lecture 11 - Cognitive Processes - 1
- Lecture 12 - Cognitive Processes - 2
- Lecture 13 - Categories of Knowledge - 1
- Lecture 14 - Categories of Knowledge - 2
- Lecture 15 - Taxonomy Table
- Lecture 16 - Affective and Psychomotor Domains
- Lecture 17 - Course Outcomes - 1
- Lecture 18 - Course Outcomes - 2
- Lecture 19 - Tagging Course Outcomes
- Lecture 20 - Computing Attainment of COs
- Lecture 21 - Computing PO and PSO Attainment
- Lecture 22 - Course Design Component of Teaching as per Fink's Model
- Lecture 23 - ISD and ADDIE Models
- Lecture 24 - ADDIE - Analysis Phase 1
- Lecture 25 - ADDIE - Analysis Phase 2
- Lecture 26 - ADDIE - Design Phase
- Lecture 27 - Technology for Assessment; Setting Targets
- Lecture 28 - Assessment Plan and Assessment Instruments
- Lecture 29 - Item Banks

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NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

- Lecture 30 - ADDIE- Development Phase
- Lecture 31 - ADDIE - Implement Phase 1
- Lecture 32 - ADDIE - Implement Phase 2
- Lecture 33 - Exit Surveys - 1
- Lecture 34 - Exit Surveys - 2
- Lecture 35 - ADDIE - Evaluate Phase
- Lecture 36 - Instruction An Overview
- Lecture 37 - Instructional Situations
- Lecture 38 - How Brains Learn
- Lecture 39 - Instructional Components
- Lecture 40 - Principles of Instruction Design
- Lecture 41 - Direct Instruction - 1
- Lecture 42 - Direct Instruction - 2
- Lecture 43 - Project Based Approach to Instruction
- Lecture 44 - Problem Based Approach to Instruction
- Lecture 45 - Instruction for Design thinking
- Lecture 46 - Simulation Approach to Instruction
- Lecture 47 - Instruction for Metacognitive Learning
- Lecture 48 - So, What Should the teacher do?
- Lecture 49 - NBA Criterion 1 Vision, Mission, PEOs - 1
- Lecture 50 - NBA Criterion 1 Vision, Mission, PEOs - 2
- Lecture 51 - NBA Criterion 2 Teaching-Learning Processes - 1
- Lecture 52 - NBA Criterion 2 Teaching-Learning Processes - 2
- Lecture 53 - NBA Criterion 3 COs and POs - 1
- Lecture 54 - NBA Criterion 3 COs and POs - 2
- Lecture 55 - NBA Criterion 4 Students' Performance
- Lecture 56 - NBA Criterion 5 Faculty Information and Contributions
- Lecture 57 - NBA Criterion 6 Facilities and Technical Support
- Lecture 58 - NBA Criterion 7 Continuous Improvement
- Lecture 59 - NBA Criterion 8 First Year Academics
- Lecture 60 - NBA Criterion 9 Student Support Systems
- Lecture 61 - NBA Criterion 10 Governance, Institutional Support and Financial Resources
- Lecture 62 - Summary