

**Department of Commerce & Financial Studies (DCFS)**

**Ph.D. Coursework**

<b>S.No.</b>	<b>Paper Code</b>	<b>Course</b>	<b>Credit</b>	<b>Choice</b>
1	PHDCFS111010	Research Methodology	4	Mandatory
2	PHDCFS111020	ICT Tools in Business Research	3	Mandatory
3	PHDCFS111030	Indian Financial System	3	Optional
4	PHDCFS111040	Advanced Corporate Finance	3	Optional
5	PHDCFS111050	International & Cross-Cultural Management	3	Optional
6	PHDCFS111060	Advances in Marketing Management	3	Optional
7	PHDCFS111070	Advances in Human Resources Management	3	Optional
8	PHDCFS111080	Mergers, Acquisition & Corporate Restructuring	3	Optional
9	PHDCFS111090	Research and Publication Ethics	2	Mandatory

Following rules applies for successful completion of Ph.D. course work as per UGC and CUJ guidelines:

1. Research Methodology and Research and Publication Ethics courses are mandatory and will be of 4 and 2 credits respectively (60 & 30 contact hours respectively).
2. ICT Tools in Business Research course is mandatory and will be of 3 credits (45 contact hours).
3. All other papers are optional and carries credit of 3 (45 contact hours).
4. A candidate must successfully complete minimum 8 credits and maximum 16 credits.
5. For Ph.D. students in DCFS a candidate must complete at least 12 credits.

## PHDCFS111010 RESEARCH METHODOLOGY

**UNIT-I:** Knowledge: Concept and sources; Research: concept, need and purpose; Pure and Applied research, Methods of research; Ethics in research; Research Process: Research problem-Identification and formulation, criteria for good research problem, formulation of hypothesis, research proposal-relevance and components.

**UNIT-II:** Data sources in business research: Primary and secondary sources of data; Census and sample; Sampling design and procedure; Types of Sample, Determination of sample size; Designing questionnaire; Methods of collecting primary data – Interview, Observation, Schedules; Measurement and scaling; Sampling distribution, Central Limit Theorem, Test of validity and reliability.

**UNIT-III:** Data analysis (I): Data preparation and descriptive analysis; Testing of hypothesis: One and two tailed test, type I & II error, confidence level, power of test, degree of Freedom.

Parametric tests: Large & small Sample, z-test, t-test, f-test, one and two way ANOVA.

Non-parametric tests: Chi-square test; Sign test; Wilcoxon Signed-Rank test; Wald Wolfowitz test; Kruskal-Wallis test, Mann Whitney U test. Interpretation of statistical results.

**UNIT-IV:** Data Analysis (II): Multiple Regression Analysis, Coefficient of Determination, Moving Average, Auto-Correlation, Factor Analysis. Interpretation of statistical results.

**UNIT-V:** Research Report Writing: Meaning, definitions and types, preparation, context, and format, presentation, referencing, citation.

### **Suggested Reading:**

1. Broota, K. D. (1992). *Experimental Design in Behavioral Research*, Wiley Eastern.
2. Burns, Robert B. (2000). *Introduction to Research Methods*, Sage Publication, New Delhi.
3. **Cooper, Donald R. and Schindler, Pamela, R. (1999). *Business Research Methods*, Tata McGraw Hill.**
4. Easterly, Smitch, Mark, Thrope., Richard, Hill., and Lowe, Andy. (2002). *Management Research - An introduction*, Sage Publication, New Delhi.
5. Kothari, C R. (2004). *Research Methodology – Methods and Techniques*, New Age Publications, India.
6. Richard, I. Levin & David S., Rubin. (2008). *Statistics for Management*, 7/c Pearson.
7. Young, Pauline V. (2001). *Scientific Social Surveys and Research*, Prentice Hall of India, New Delhi.

## **PHDCFS111020: ICT TOOLS IN BUSINESS RESEARCH**

### **Unit-1**

ICT-meaning, nature and importance, Sources of online thesis, governments archives and statistics. Software for referencing and Literature review: Mendeley, Jotero and Google Scholars, Awareness about Citation, ORCID, Impact factor etc.

### **Unit-2**

MS-Office and its application: File handling in window, Research publishing tools- Data processing – classification, tabulation, presentation and editing;, MS Word for referencing and Indexing, Page size and orientation, Headers and footers, Page numbers, Line Spacing, Indentation and Alignment, Use of Tab Key, Inserting Bullets and Numbering; Creating a Table, Adding a New Row and a Column to a Table, Resizing the Columns, Deleting a Column and a Row, Inserting images from ClipArt, Inserting images from file. Introduction, design and use of PowerPoint.

### **Unit-3**

Using Formulas and Functions: Basic functions, Auto sum features, creating formula in excel, relative & absolute referencing, IF, SUMIF, SUMIFS, COUNTIF functions, VLOOKUP, HLOOKUP. Using excel in time value of money: PV, FV (of single sum, annuities). finding loan EMIs, Rate, No. of time period, creating loan amortization table, finding outstanding loan amount at the end of certain period. Using excel in capital budgeting techniques – NPV, IRR, PI, Payback, XNPV, XIRR, Scenario analysis & Sensitivity analysis. Using excel in calculating - average return, CAGR.

### **Unit-4**

Data Analysis using excel - Variance, Standard deviation, Co-variance, Correlation, Regression analysis and calculating Beta, R-square using real data from stock exchange. tests for hypothesis z-test, t-test, Annova.

### **Unit-5**

Introduction to Data analysis using SPSS, E Views Software for statistical analysis and Introduction R Statistical software.

### **Refrences**

Box. Jenkin & Reinsl: Time Series Analysis, Pearson

J. Johnston: Econometric methods

D.N. Gujarati and Sangeetha: Basic Econometrics

R. Ramanathan: An Introduction to Data Envelopment Analysis

Brooks Chris: Introductory Econometrics for Finance, Cambridge University Press

## PHDCFS111030 INDIAN FINANCIAL SYSTEM

At least 5 good research papers to be discussed relevant to the following units.

### UNIT I

Indian Financial System: Financial System and Components of the financial System- Institutions, Instruments, Markets, and Services; Functions and Role of financial system. Financial System and Economic Development. Role of RBI, SEBI and IRDA in Indian Financial System.

### UNIT II

Banking and non-banking institutions in India: Commercial Banking, Private banks and Public Banks, Cooperative Banks, Regional Rural Banks, Foreign Banks. Developments in Commercial banking sector since 1991. Management of Non-Performing Assets (NPAs); Capital adequacy norms in India. Overview of Development Banking. Non-Banking Financial Intermediaries: Insurance Companies, Post Offices, Mutual Funds.

### UNIT III

Financial Markets: Money Market: Composition, Function and Instruments. Indian Capital Markets: Features, Function, Structure and Instruments, Primary Market- Functions & Issue Mechanism (IPO, Book Building, Stock Option etc.), & SEBI guideline, Intermediaries in Primary Market. Secondary Market- Functions and Organization, intermediaries in secondary market Stock exchange index. Foreign Exchange Market-Concept and Overview, Derivative and Debt Market in India-Concept and overview.

### UNIT IV

Financial Services: Private Equity meaning and classification- Venture Capital Mutual Fund, Factoring and forfeiting (overview only) Fee based services; Merchant banking, Underwriting, Cost of investing in Private Equity, Exit Routes. Credit Rating: Objectives and types, Credit Rating Process, Rating Revisions, Uses of Credit Rating, Major Credit Rating Agencies in India- CRISIL, ICRA and CARE

### UNIT V

Financial Instruments and Assets: Financial Instruments and Financial Asset: Concept, Types- Cash Instruments, Derivative Instruments, Financial Instruments by Asset Class- Debt based Financial Instruments; Equity based Financial Instruments Financial Asset.

### ***Suggested Readings:***

Pathak B., "The Indian Financial System– Markets, Institutions, and Services", Pearson Education, New Delhi.  
Khan M Y : Indian Financial System, Tata Mcgraw Hill, New Delhi (*Latest Ed.*)  
Bhole, L M : Financial Institutions and Markets : Structure Growth and Innovations. 2nd  
Srivastava, R M : Financial Institutions in Indian Financial Institutions. 3rd revision ed.  
Madura J., Financial Markets and Institutions, South-Western, Cengage Learning, Latest Edition.  
Reserve Bank of India Mumbai, Reports, Reviews and Policy Statements on Currency and Finance Matters (Published on [www.rbi.gov.in](http://www.rbi.gov.in)).

## **PHDCFS111040: Advanced Corporate Finance (Ph.D.)**

**At least 5 good research papers to be discussed relevant to the following units.**

### **Unit I**

Fundamental financial decision – investment, financing and dividend, Interdependence of financial decisions and risk-return trade-off, Corporate objectives– Profit vs Shareholder wealth maximization, Conflict of goals and agency problem; Economic Value Added (EVA), Market Value Added (MVA). Time Value of Money; Techniques of TVM - Future value & Present value; FV and PV of single cash flow, uneven cash flows, annuity, growing annuities and perpetuity; Application of FV and PV -Sinking fund & Loan amortization.

### **Unit II**

Investment decision: Capital Budgeting, features and steps; Non-DCF techniques- Accounting Rate of Return, Pay Back Period; DCF techniques- NPV, IRR, & Profitability index methods; Acceptance rule under each technique, Critical appraisal of techniques. Investment decisions under uncertainty, risk and uncertainty, various risks associated to capital budgeting decision, factors contributing risk; techniques for risk analysis in capital budgeting decisions, statistical and conventional techniques for risk analysis - probability & probability distribution, expected value, Variance, Standard Deviation, Coefficient of Variation, Risk-adjusted discount rate, Certainty equivalent, Sensitivity Analysis, Scenario Analysis, Project beta, Discounted Cash Flow (DCF) techniques for Project evaluation and Capital Rationing cases, Capital budgeting and Inflation

### **Unit III**

Financing decision: Sources of Long-term Finance: Debt vs Equity capital; Optimal capital structure, Theories of capital structure, Relevancy & Irrelevancy theories- NI, NOI, MM Approach; Concept of Operating, Financial and Combined leverage; Cost of Capital, Pre and Post tax cost, Cost of Debt; Cost of equity - Dividend discount model & Capital asset pricing model (CAPM); Weighted average cost of capital (WACC).

### **Unit IV**

Dividend decision: announcement dates, Types of dividends- Interim and Final, Cash, Bonus, Stock-split and Stock repurchases, types of dividend and impact on balance-sheet; Dividend policy- stable vs variable, factors affecting of dividend policy, Dividend theories, Relevancy & Irrelevancy theories – Walter's model, Gordon's model, MM theory.

### **Unit V**

Short-term Financial Planning and Management - Operating cycle theory of working capital, projection of working capital requirement, managing component of working capital, Inventory management - ABC Approach, Carrying & ordering Costs, economic order quantity (EOQ), safety stocks, Reorder point; Cash Management, motives of holding cash, Cash Management versus Liquidity Management, projecting cash requirement - cash budgets, Miller-Orr Model. Receivable Management, Credit and Receivable, Terms of credit sale, Analyzing credit policy and cost, Evaluating a Proposed Credit Policy, NPV of Switching Policies, Break-Even Application

### **Suggested Readings:**

Damodaran, A. Corporate Finance. John Wiley & Sons.

Ross, S., Westerfield, R. & Jaffe, J. Corporate Finance. Tata McGraw-Hill

Myers, R.S., Allen, F. & Mohanty, P. (2012). Principles of Corporate Finance. Tata McGraw-Hill, India.

Van Horne, J.C., and Wachowicz Jr., J.M., *Fundamentals of Financial Management*, Pearson

Pandey, I.M., *Financial Management*, Vikas Publication, New Delhi

Khan, M.Y. and Jain, P.K., *Financial Management*, Tata McGraw Hill

## PHDCFS111050: INTERNATIONAL CROSS CULTURAL MANAGEMENT

### Course Objective:

*The course seeks to develop a diagnostic and conceptual understanding of the cultural and related behavioural variables in the management of global organizations.*

**Note:** *At least five good quality, recent research papers should be referred in the course-relevant domain.*

### Course Contents:

**Unit – I:** Introduction - Concept of Culture for a Business Context; Brief wrap up of organizational culture & its dimensions; Cultural Background of business stake-holders [managers, employees, shareholders, suppliers, customers and others] – An Analytical frame work

**Unit – II:** Culture and Global Management - Global Business Scenario and Role of Culture – A Frame work for Analysis; Elements & Processes of Communication across Cultures; Communication Strategy for/ of an Indian MNC and Foreign MNC & High Performance Winning Teams and Cultures; Culture Implications for Team Building

**Unit – III:** Cross Culture – Negotiation & Decision Making - Process of Negotiation and Needed Skills & Knowledge Base – Over view with two illustrations from multi-cultural contexts [India – Europe/ India – US settings, for instance]; International and Global Business Operations- Strategy Formulation & Implementation; Aligning Strategy, Structure & Culture in an organizational Context.

**Unit – IV:** Global Human Resources Management - Staffing and Training for Global Operations – Expatriate - Developing a Global Management Cadre. Motivating and Leading; Developing the values and behaviours necessary to build high-performance organization personnel [individuals and teams included] – Retention strategies.

**Unit – V:** Corporate Culture - The Nature of Organizational Cultures Diagnosing the As-Is Condition; Designing the Strategy for a Culture Change Building; Successful Implementation of Culture Change Phase; Measurement of ongoing Improvement.

### Suggested Readings:

1. *Cashby Franklin, Revitalize Your Corporate Culture: PHI, Delhi*
2. *Deresky Helen, International Management: Managing Across Borders and Cultures, PHI, Delhi*
3. *Esenn Drlarry, Rchildress John, The Secret of a Winning Culture: PHI, Delhi*

## **PHDCFS111060: ADVANCES IN MARKETING MANAGEMENT**

### **Course Objective:**

*Over the last decade marketing as a subject and as practice has drastically evolved. Primarily due to technological, sociological and other global game changing forces. This course will attempt to highlight these profound and potentially significant changes from the perspective of a researcher and explore whether certain base premises will ever change or not.*

*This course will discuss marketing theories as well as a range of real life current and classical examples & cases to help participants be more aware about the advances in marketing.*

**Note:** *At least five good quality, recent research papers should be referred in the course-relevant domain.*

### **Course Contents:**

New Age Marketing: Understanding new era organizations and the marketing environment today, the role of market orientation, technological advances, global marketing imperative, marketing ethics & social responsibility.

Market opportunity recognition and evaluation: Internal analysis, External analysis; the marketing information system, Buyer behaviour, Segmentation & targeting.

Broader Concerns today: Stake holder Concerns & issues; Sustainable & Green marketing; New paradigms for Organizations & Consumers.

Products, Services & Innovation: Marketing's role in new product/new service development; Managing across the life cycle; Marketing channels and the marketing ecosystems.

Marketing Planning and Execution: Different approaches to planning for Marketing. Forecasting & Scenario planning; Marketing mix & Resource allocation; Marketing communication – Multi channel integration; Pricing, Branding, Value driven Relationship.

New Challenges: Marketing & the creative industries; Marketing & the new media; Marketing to the bottom of the pyramid; Frugal & grass root Marketing.

### **Suggested Readings:**

1. *Marketing Strategies, A contemporary approach by Ranchod & Gurau, Pearson India, 2012.*
2. *Marketing: Planning, Implementation, Control by Pride and Ferrell, Cengage, 2010.*
3. *Strategic marketing problems: Cases & Comments by Kerin & Peterson, Pearson 2012.*

## PHDCFS111070: Advances in Human Resources Management

### Course Objective:

*In effective and successful organizations, the HR function is now a strategic role. In this strategic role, the HR function is aligning itself with the organizational direction. The programme is specifically designed to examine the changing role of HR function in the present environment and expose the participants to current practices and research in the HRM domain. The programme will also be an opportunity for the participants to reinforce their understanding of HRM and explore ways of designing and implementing value adding HR interventions.*

**Note:** *At least five good quality, recent research papers should be referred in the course-relevant domain.*

**Unit-1:** Introduction: Nature, scope and objective of human resource management, Evolution and development, Human resource as a sustainable competitive advantage in globalization era, Challenges faced by human resource manager, Broad functions of human resource manager.

**Unit-2:** Acquisition: Need and types of HR policies, Human resource planning, Job analysis, Recruitment and selection process, Placement and orientation.

**Unit-3:** Training and Development: Concept and importance; Identifying training and development needs; Training and development methods – Apprenticeship, understudy, Job rotation, Vestibule training, Case study, Role playing, Sensitivity training, In-basket, Management Games, Coaching and Mentoring, Management development programs; Evaluating training effectiveness.

Performance appraisal; Nature, Objectives, Methods, Employee counselling, job changes-transfers and promotion, Potential appraisal. Career Management: Career anchors, Career life stages, Career planning.

**Unit-4:** Maintenance & Control: Compensation - Concept and policies; Job evaluation; Policy regarding Retention of Employees, Rewards and Incentives; Types of Incentives, Impact of Incentives, Fringe benefits; Performance linked compensation, Employee health and safety; Employee welfare; Social security (excluding legal provisions); Grievance handling and redressal, Control; Human resource audit and information system.

**Unit-5:** Emerging issue in HRM: Emerging issues and challenges of HRM-Employee empowerment, Downsizing, Work-life; Concept, Methods to Improve Quality of Work Life: Flexi Time, Flexi Place, Alternative Work Schedules, Part Time Employment, Compressed Work Week, Work life balance, Benefit of QWL Programs, Challenges in Implementing QWL Programme. Use of technology in HRM function, Concept of E-HRM, Green-HRM, Outsourcing HRM, Ethics in HRM (surveillance vs. privacy).

### Suggested Readings:

1. Agarwal Tanuja, *Strategic HRM*, Oxford University Press.
2. Ashwathappa K., *HRM and Personal Management*, Tata McGraw Hill Publications.
3. DharRajeev Lochan, *Strategic HRM*, Excel Book Publications.
4. F. Cascio Wayne, *HRM: Productivity, Quality of Work Life Profits*, McGraw Hill Publication.
5. Leap and Crino, *Personnel / HRM*, McMillan Publication.
6. Mirza and Sahyadrin, *Human Resource Management*, Pearson Publications.
7. Monappa and Sahyadrin, *Personnel Management*, McGraw Hill Publication.



## **PHDCFS111080: Mergers, Acquisitions and Corporate Restructuring**

**At least 5 good research papers to be discussed relevant to the following units.**

**Course Objective:** This module provides an understanding of the rationale behind Mergers, Acquisitions and Capital Restructuring as an important strategic choice to take advantage of operating and financial synergies. The module prepares the participants to apply their knowledge for decision making in the processes of mergers and acquisitions, valuations and post mergers integration issue.

### **Unit I**

Merger, Acquisitions & Takeovers: An overview, Forms of corporate restructuring, corporate control, historical perspective of mergers- waves of merger, Cross Border Mergers, Reasons for merger, Steps involved in merger and amalgamation, Scheme of merger/amalgamation, Sources of value in a merger, Accounting & legal aspects of hostile and friendly takeovers. Takeovers, types, takeover strategies, - Takeover defenses – financial defensive measures – methods of resistance – anti-takeover amendments – poison pills.

### **Unit II**

Corporate restructuring – significance - forms of restructuring – joint ventures, strategic alliance Downsizing of the organization: sell off, split off and spin off – divestitures – equity carve out – leveraged buy outs (LBO) – management buy outs (MBOs) – Limited Liability Partnership (LLP), Splitting of share's face value, Govt. divestment plan for PSUs.

### **Unit III**

The Strategic Process – Theories of Mergers and Tender Offering; Financial Synergy and Managerial Synergy; Steps in Merger Transactions; identification of targets – negotiation - closing the deal, Due diligence– Types - due diligence strategy and process - due diligence challenges, Contents of Amalgamation Scheme; negotiating the acquisition agreement and the letter of intent, closing the deal. Methods of financing mergers – cash offer, share exchange ratio.

### **Unit IV**

Valuation - valuation approaches, basis of valuation, different methods of valuation - discounted Cash Flow Valuation Methodologies, discounted Cash Flow Valuation Methodologies, valuation of synergy, corporate control and LBO; Accounting for Amalgamation –Meaning of amalgamation, types of amalgamation, methods of accounting for amalgamation, amalgamation in the nature of merger and amalgamation in the nature of purchase-pooling of interest method, purchase method – meaning of consideration, treatment of goodwill, reserves and other profits, procedure laid down under Indian companies act of 1956.

### **Unit V**

Legal aspects of Mergers/amalgamations and acquisitions/takeovers- Approval from various authorities, Combination and Competition Act- Competition Commission of India (CCI), The SEBI Substantial Acquisition of Shares and Takeover code Unit, Provisions of Companies Act 1956. Post-Merger Integration - integration planning, factors in post-merger integration model, post-merger integration model, strategic interdependence and autonomy.

### **Suggested Readings:**

Mergers, Restructuring And Corporate Control, Fred Weston, Kwang S Chung, Susan E Hoag. Pearson Education. Merger Acquisitions & Corporate Restructuring – Chandrashekar Krishna Murthy & Vishwanath. S.R. Sage Publication.

Corporate Finance-Theory and Practice – AswathDamodaran. John Wiley & Sons.

Business Legislation for Management, M.C. Kuchhal and VivekKuchhal, 4/e, Vikas Publishing House, 2013.

Patrick A. Gaughan (2011), Mergers, acquisitions, and Corporate Restructuring, Wiley

Robert F. Bruner, Joseph R. Perella (2004), Applied Mergers and Acquisitions, Wiley

## **PHDCFS111090 Research and Publication Ethics**

- **Research and Publication Ethics (RPE)**-Course for awareness about the publication ethics and publication misconducts.

Course Level:

- 2 Credit course (30 hrs)

#### **Eligibility.-**

- M.Phil., Ph.D. students and interested faculty members (It will be made available to post graduate students at later date)

#### **Fees:**

- As per University Rules

#### **Faculty-.**

- Interdisciplinary Studies

#### **Qualifications of faculty members of the course:**

- » Ph.D. in relevant subject areas having more than 10 years' of teaching experience

#### **About the course**

#### **Course Code: CPE- RPE**

#### **Overview**

- This course has total 6 units focusing on basics of philosophy of science and ethics, research integrity, publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open access publications. research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course.
- Class room teaching, guest lectures, group discussions, and practical sessions.

#### **Evaluation**

- Continuous assessment will be done through tutorials, assignments, quizzes, and group discussions. Weightage will be given for active participation. final written examination will be conducted at the end of the course.

## Course structure

- The course comprises of six modules listed in table below. Each module has 4-5 units.

Modules	Unit title	Teaching hours
<b>Theory</b>		
RPE 01	Philosophy and Ethics	4
RPE 02	Scientific Conduct	4
RPE 03	Publication Ethics	7
<b>Practice</b>		
RPE 04	Open Access Publishing	4
RPE 05	Publication Misconduct	4
RPE 06	Databases and Research Metrics	7
	<b>Total</b>	30

## Syllabus in detail

### THEORY'

- RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)**
  - Introduction to philosophy: definition, nature and scope, concept, branches
  - Ethics: definition, moral philosophy, nature of moral judgements and reactions
- RPE 02: SCIENTIFIC CONDUCT (5 hrs.)**
  - Ethics with respect to science and research
  - Intellectual honesty and research integrity
  - Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
  - Redundant publications: duplicate and overlapping publications, salami slicing
  - Selective reporting and misrepresentation of data
- RPE 03: PUBLICATION ETHICS (7 hrs.)**
  - Publication ethics: definition, introduction and importance
  - Best practices / standards setting initiatives and guidelines: COPE, WAME, etc.
  - Conflicts of interest
  - Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types
  - Violation of publication ethics, authorship and contributorship
  - Identification of publication misconduct, complaints and appeals
  - Predatory publishers and journals

### PRACTICE

- RPE 04: OPEN ACCESS PUBLISHING(4 hrs.)**

1. Open access publications and initiatives
  2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies
  3. Software tool to identify predatory publications developed by SPPU
  4. Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.
- PPE 05: PUBLICATION MISCONDUCT (4hrs.)
    - A. Group Discussions (2 hrs.)
      1. Subject specific ethical issues, FFP, authorship
      2. Conflicts of interest
      3. Complaints and appeals: examples and fraud from India and abroad
    - B. Software tools (2 hrs.)
 

Use of plagiarism software like Tumitin, Urkund and other open source software tools
  - RPE 06: DATABASES AND RESEARCH METRICS (7hrs.)
    - A. Databases (4 hrs.)
      1. Indexing databases
      2. Citation databases: Web of Science, Scopus, etc.
    - B. Research Metrics (3 hrs.)
      1. Impact Factor of journal as per Journal Citation Report, SNIP, SIR, IPP, Cite Score
      2. Metrics: h-index, g index, i10 index, altmetrics

## References

- Bird, A. (2006). *Philosophy of science*. Routledge.
- MacIntyre, Alasdair (1967) 'A Short History of Ethics'. London.
- P. Chaddali, (2018) *Ethics in Competitive Research: Do not get scooped; do not get plagiarized*, ISBN:978-9387480865
- National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.
- Resnik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1—10. Retrieved from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>
- Bcall, J. (2012). Predatory publishers are coming open access. *Nature*, 489(7415), 179—179. <https://doi.org/10.1038/489179a>
- Indian National Science Academy (INSA), *Ethics in Science Education, Research and Governance* (2019), ISBN:978-81-939482-1-7. [http://www.insaindia.org/res.in/pdf/Ethics Book.pdf](http://www.insaindia.org/res.in/pdf/Ethics%20Book.pdf)