

M.Phil., Programme in Geography

COURSE OF STUDY, SCHEME OF EXAMINATIONS AND SYLLABI

**GENERAL PATTERN FOR M.Phil.,- SCIENCE
2018-2019**

Applicable to candidate admitted from the academic year 2018-2019 onwards



**P G Department of Geography
Periyar E.V.R. College (Autonomous)
Tiruchirappalli – 620 023.**

MINUTES

1. As per the University norms theory papers for M.Phil., course, four papers were implemented and the candidate has to submit a dissertation to complete a course work.
2. The course consists of two semesters the first semester the candidate has to write four theory papers.
3. The second semester the candidate should submit a dissertation.
4. Research methodology and Teaching and Learning Skills are common papers to all M.Phil students.
5. The other two papers entitled as Geoinformatics and Its Applications and Disaster studies were recommended and approved by the board.

Periyar E.V.R. College (Autonomous) Tiruchirappalli – 620 023.

M.Phil. Geography (Full Time / Part Time) Programme
(For the candidates admitted from the academic year 2018 – 2019 onwards)

1. Part-I	Title of the Course	Marks			Credits
		IA	UA	Total	
Course I	Research Methodology	40	60	100	4
Course II	Geoinformatics and Its Applications	40	60	100	4
Course III	Disaster Studies	40	60	100	4
Course IV	Teaching and Learning Skills	40	60	100	4
2. Part-II					
	Dissertation and Viva – Voce			200	8
	(Dissertation	–	150 Marks)		
	(Viva Voce	–	50 Marks)		
3. For each Course other than the Dissertation				100 Marks	
	(a) Continuous Internal Assessment (CIA)	–	40 Marks		
CIA Components for Course I to IV					
	Tests (2 x 10)	–	20 Marks		
	Assignment	–	10 Marks		
	Seminar	–	10 Marks		
	(b) End Term Examination	–	60 Marks		
4. Question Paper Pattern for Course I to IV					
	5 Questions Out of 8 Questions		5 x 12 = 60 Marks		

Paper Code: MMPGY1C1

Course I - Research Methodology

Objectives:

1. Explain the concepts and process of research methodology in geography.
2. Explain the concepts of analysis of data and method of report writing.

UNIT – I

Research in Geography, Meaning – Need of Research – Types of Research – Approaches to Geographical Research: Identification of Fields, Area of Interests and Themes. Problems encountered by researcher in India.

UNIT – II

Logic in Research: Hypotheses, Concepts and Facts, Principles and Laws, Theory and their implications in Geographical Research – Role of Models – Research problems – selecting the problem – Defining the problem – Techniques involved in defining the problem.

UNIT – III

Research Design: Literature Survey, Selection of the Topic — Formulation of Hypotheses, Testing of Hypotheses – Role of Inter Net, Preparation of Proposal and Research Design.

UNIT – IV

Collection of Data: Sources of Data: Primary and Secondary, Sampling Techniques, Structuring Database – Data Transformation – Quantitative and Qualitative Techniques in Geographical research.

UNIT – V

Thesis Writing: Organization of the Thesis, Thesis Writing Styles, Formats, Literature Review and Appraisal, Reference Materials. Selection of Writing and Reference Citing Styles, Drafting of Thesis, Thesis Editing and Enriching – Writing of Abstracts, Reports, Research Papers and Research Project Proposal.

References:

1. Anderson J, Durston, B.H. and Poole, M. (1970) – Thesis and Assignment Writing. Wiley Eastern Ltd., New Delhi.
2. Demoko et al. – Scientific Reasoning in Geographical Research.
3. Cooray P.G. (1992) – Guide to Scientific and Technical Writing, Hindagala, Sri Lanka.
4. Davis J.C. (1986) – Statistics and Data Analysis in Geology, John Wiley and Sons, New York.
5. Davis W.K.D. (1972) – Conceptual Revolution in Geography, University of London Press Ltd., London.
6. Fitzgearld B.P. et al., (1974) – Science in Geography 1, 2, 3, 4, 5 and 6, Oxford University Press, London.
7. Hammond. R and Megullagh, P., (1978) – Quantitative Techniques in Geography: An Introduction, Clarendon Press, Oxford
8. Hanag. L.L., and Lounsbury, J.F. (1971) – Research Methods in Geography, Brown Company Publishers, Iowa.

Paper Code: MMPGY1C2
Course II- Geoinformatics and Its Applications

Objectives:

1. Explain the various components of Geoinformatics
2. Explain the functions and applications of Geoinformatics

UNIT – I

Geoinformatics: Geoinformatics as an information technology –components of Geoinformatics – capabilities, Definition of spatial and Non-spatial data, spatial data structure, spatial entities.

UNIT – II

Remote sensing - EMR (Electromagnetic Radiation) - Remote sensing systems; Platforms, Sensors and radiation records. Resolutions - Type of remote sensing: Satellite and Aerial Remote sensing, Resolution, Define Classification, Type of Classification.

UNIT – III

Geographic Information System: Source of Data, Projection, Co-ordinate System, Datum, Geo- referencing, GIS analysis, Network Analysis, Weighted Overlay Analysis, Spatial Analysis, DEM, GIS Software, Open source Software, QGIS

UNIT – IV

Global Positioning System (GPS) – Introduction – System Elements - Space – Control and user segments – Principles of Positioning, Handheld GPS, DGPS, Static and RTK, GNSS, GLONASS and IRNSS.

UNIT – V

Applications of Geoinformatics in Agriculture and Forestry, Land use and Land Cover, water resources, Network based analysis, Surveying and Engineering, Solid waste Management, Crime analysis and Health services

References:

1. Kang – Sung Chang (2002) – Introduction to Geographic Information System. Tata McGraw Hill Publishing Company lit. New Delhi.
2. Peter A. Burrough and Rachael A. Medonnell (1998) – Principals of Geographic Information System, Oxford University Press, New York.
3. Anji Reddy M. (2014) –Textbook of Remote Sensing and Geographical Information Systems, BS Publications.
4. Anand P.H. (2003) – Principles of Remote Sensing and GIS, Srivenkateswara Publishers, Kumbakonam.

Paper Code: MMPGY1C3

Course III– Disaster Studies

Objectives:

1. Explain the focus on types of disaster.
2. Explain the approaches in disaster reduction and management.

UNIT – I

Natural Disasters- Meaning and nature of natural disasters: - Types and effects; Geological hazards: earthquake, volcanoes, landslide and tsunami; Meteorological hazards: Floods, drought, cyclone, Heat and cold waves- Climatic change: global warming, Sea level rise, ozone depletion.

UNIT – II

Man Made Disasters- Nuclear disasters, chemical disasters, biological disasters, building fire, coal fire, forest fire, air pollution, water pollution and deforestation,

UNIT – III

Disaster Management- Concept of disaster management, mitigation and preparedness, Natural disaster at national and global levels. International strategy for disaster reduction.

UNIT – IV

National disaster management framework; role of NGOs, community –based organizations and media. Central, State, District and Local administration; Armed forces in disaster response; Disaster response; Policies and other organizations.

UNIT – V

Disaster management in India: Disaster management Policy, disaster prevention and mitigation, disaster management programme, Indian disaster resource network.

References:

1. [<http://www.cbc.ca/world/story/2008/05/08/f-natural-disasters-history.html> The world's worst natural disasters Calamities of the 20th and 21st centuries] *CBC News* Retrieved 2010-2-10
2. <http://www.pbs.org/wgbh/nova/flood/deluge.html>
3. http://www.time.com/time/specials/packages/article/0,28804,1953425_1953424,00.html
4. <http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010rja6/#summary>
5. Understanding Global Security, Peter Hough, 2008, chapter 8, page 192, table 8.1 'The ten worst natural disasters in history'
6. 1918 Influenza: the Mother of All Pandemics, CDC
7. "UC Davis Magazine, Summer 2006: Epidemics on the Horizon". http://ucdavismagazine.ucdavis.edu/issues/su06/feature_1b.html. Retrieved 2008-01-03.
8. ^ Smallpox and bioterrorism, *Bulletin of the World Health Organization*, vol. 81 no. 10 Geneva October 2003 ISSN 0042-9686
9. Torrey EF and Yolken RH. 2005. Their bugs are worse than their bite. *Washington Post*, April 3, p. B01.
10. Influenza (Seasonal), World Health Organization, April 2009, retrieved 2010-02-13
11. 10 'Worst' Natural Disasters
12. Hurricanes: case studies
13. <http://www.inpres.gov.ar/seismology/seismology/historic/hist.panel.htm>

14. Worst Natural Disasters In History
15. G. Bankoff, G. Frerks, D. Hilhorst (eds.) (2003). *Mapping Vulnerability: Disasters, Development and People*. ISBN ISBN 1-85383-964-7.
16. B. Wisner, P. Blaikie, T. Cannon, and I. Davis (2004). *At Risk - Natural hazards, people's vulnerability and disasters*. Wiltshire: Routledge. ISBN ISBN 0-415-25216-4.
17. D. Alexander (2002). *Principles of Emergency planning and Management*. Harpenden: Terra publishing. ISBN ISBN 1-903544-10-6.
18. Weather Encyclopedia, The Weather Channel, Accessed on June 2, 2009, <http://www.theweatherchannelkids.com>.
19. BBC: Oxfam warns of climate disasters.
20. Gupta HK.2003.*Disaster Management*. Indian National Science Academy. Orient Blackswan.
21. Hodgkinson PE & Stewart M. 1991. *Coping with Catastrophe: A handbook of Disaster Management*. Routledge.
22. Sharma VK. 2001. *Disaster Management*. National Centre for Disaster Management, India

Paper Code: MMPGEN
Course IV – TEACHING AND LEARNING SKILLS

UNIT I – Computer Application Skills

Computer system: Characteristics, Parts and their functions – Different generations of Computer – Operation of Computer: switching on / off / restart, Mouse control, Use of key board and some functions of key – Information and Communication Technology (ICT): Definition, Meaning, Features, Trends – Integration of ICT in teaching and learning – ICT applications: Using word processors, spread sheets, Power point slides in the classroom – ICT for Research: On–line journals, e–books, Courseware, Tutorials, Technical reports, Theses and Dissertations.

UNIT II – Communication Skills

Communication: Definitions – Elements of Communication: Sender, Message, Channel, Receiver, Feedback and Noise – Types of Communication: Spoken and written; Non–verbal communication – Intrapersonal, Interpersonal, Group and Mass communication – Barriers to communication: Mechanical, Physical, Linguistic & Cultural – Skills of communication: Listening, Speaking, Reading and writing – Methods of developing fluency in oral and written communication – style, Diction and Vocabulary – Classroom communication and dynamics.

UNIT III – Communication Technology

Communication Technology: Bases, Trends and Developments – Skills of using Communication Technology – Computer Mediated Teaching: Multimedia, E–content – Satellite–based communication: EDUSAT and ETV channels, Communication through web: Audio and Video applications on the Internet, interpersonal communication through the web.

UNIT IV – Pedagogy

Instructional Technology: Definition, Objectives and Types – Difference between Teaching and Instruction – Lecture Technique: Steps, Planning of a Lecture, Delivery of a lecture – Narration in tune with the nature of different disciplines – Lecture with power point presentation – Versatility of lecture technique – Demonstration, Characteristics, Principles, Planning Implementation and Evaluation – Teaching – Learning Techniques: Team

Teaching, Group discussion, Seminar, Workshop, Symposium and Panel Discussion – Models of teaching: CAI, CMI and WBI.

UNIT V – Teaching Skills

Teaching skill: Definition, Meaning and Nature – Types of Teaching skills: Skill of Set Induction, Skill of Stimulus Variation, Skill of Explaining, Skill of Probing Questions, Skill of Black Board writing and Skill of Closure –Integration of Teaching Skills – Evaluation of Teaching Skills.

References:

1. Bela Rani Sharma (2007), *“Curriculum Reforms and Teaching Methods”*, Swarup and sons, New Delhi.
2. Don Skinner (2005), *“Teacher Training”*, Edinburgh University Press Ltd., Edinburgh.
3. *“Information and Communication Technology in Education: A Curriculum for Schools and programme of Teacher development”*, Jonathan Anderson and Tom Van Weert, UNESCO, 2002.
4. Kumar K.I (2008) , *“Educational Technology”*, New Age International Publishers, New Delhi.
5. Mangal, S.K. (2002), *“Essential of Teaching – Learning and Information Technology”*, Tandon Publications, Ludhiana.
6. Michael D. and William (2000), *“Integrating Technology into Teaching and Learning: Concepts and Applications”*, Prentice Hall, New York.
7. Pandey S.K. (2005), *“Teaching Communication”*, Commonwealth Publishers, New Delhi.
8. Ram Babu A. and Dandapani S (2006) , *“Microteaching”* (Vol.1&2) Neelakamal Publications, Hyderabad.
9. Singh V.K. and Sudarshan K.N. (1996), *“ Computer Education”*, Discovery Publishing Company, New York.
10. Sharma R. A. (2006), *“Fundamentals of Educational Technology”*, Surya Publications, Meerut
11. Vanaja. M. and Rajasekar S. (2006) , *“Computer Education”*, Neelkamal Publications, Hyderabad.

Model Question paper- Pattern
Periyar E.V.R College (Auto.) Tiruchirappalli- 23.
M.Phil., Degree Examination

Paper Title (Sub. Code)

Time :3 Hours
Marks

Maximum: 60

Answer All the Questions
All Questions Carry Equal Marks

(5x 12=60)

1. a

(or)

b

2. . a

(or)

b

3. . a

(or)

b

4. . a

(or)

b

5. . a

(or)

b

NOTE: Q.P Setter are requested to strictly adhere the structure. Kindly ensure that Q.Nos. are confined to the unit of syllabus as given above (Example: Q1(a) and 1(b) should be set from Unit- I)