Foundation Course in

Graph Theory and Social Network Analysis

March 2024

Admission Open!

Course Duration:
(2 hours per week)

Beginner
(6 weeks)
12 Hours

Intermediate
(5 months)
40 Hours

Advanced
(1 year)
96 Hours

Introduction:

Why is it important to get trained/ upskilled on this?

Social Network Analysis is a cutting edge tool for research as well as for understanding the drivers of behavior and decision-making in this age of hyperconnectivity, ubiquitous social media and instant information access.

Be it in healthcare, marketing, or practically any system involving human interaction, peer networks play a deciding role in information uptake and preference.
SNA tools and techniques can shed new light on the paths taken by our variable of interest—be it influence, infection, or information.

SNA can be a valuable ally in messaging and nudging the behavior of our target audience.

This course spreads across 3 levels: *Beginner, Intermediate and Advanced*

Course:

To gain an in-depth understanding of the concepts of Social Network Analysis

To develop capabilities for parsing and tabulating data appropriately for uptake and analysis by Gephi (an open-source SNA software tool)

To Use SNA concepts to perform network analysis, generate and interpret network graphs

To develop capabilities for parsing and tabulating data appropriately for uptake and analysis by Cytoscape (an open-source SNA software tool)

To understand and leverage the strengths and weaknesses of different SNA tools

To design and write a research proposal using SNA, targeted to answer a research question pertinent to the learner's field of specialization

Capstone project/Dissertation: To complete data collection and analysis, report writing, and manuscript preparation for submission to scientific journals

Course Outline:

■ Beginner (6 weeks)

- Introduction to Social Network Analysis
- Graph structure and centrality measures
- Current research in SNA in different fields such as marketing and advertising, health, sociology, business and social media etc.
- Basics of data preparation
- Hands-on analysis class

■ Intermediate (5 months)

- Data preparation for different software tools
- Hands-on analysis class
- Selecting research topics for SNA project
- Research question discussion and tailoring of research objectives.
- Presentation of research proposal: Graded assignment

■ Advanced (1 year)

- Advisory support for Ethics Committee presentation
- Advisory support for data collection
- Mentoring for analysis, report writing and manuscript preparation

Key highlights of the program:

- Program completion certificate from IIHMR
- 25+ contact hours
- KMC credit points (applied for) benefiting medical faculty and PG students
- Hybrid learning with offline and online sessions.
- Pre-course reading material.
- Customized curriculum designed by IIHMR professors.

- Practical exposure through hands-on projects
- IIHMR Alumni status
- Learners from across disciplines: synergy of diversity
- Scope of further learning through Advanced course
- Capstone project/Dissertation

Who can attend?

Anyone with basic understanding of mathematics and research principles and interest in learning SNA, including but not limited to:

- Fresh graduates aspiring to a career in network analysis
- Marketing, Branding and Advertising professionals
- Social media influencers
- Medical students: UG and PG
- Medical faculty and researchers
- Sociology students, faculty and researchers
- Engineering students, faculty and researchers

Application Process:

Submit online application

A brief about yourself and purpose of enrolling in this course

Application Review

Application review and shortlisting by a panel at IIHMR Bangalore

Admission confirmation

Selected candidates are informed to proceed for the program

Scan QR Code to Apply

or Use below link

https://bit.ly/45XiRS1

Eligibility Criteria:

Beginners	Intermediate	Advanced
- Basic Understanding of mathematics and research principles - Proactive approach and an eagerness to learn SNA	- Completion certificate of Beginners course	- Completion certificate of Intermediate course - By invitation only, offered to Top 5 best performers of Intermediate course

Note: Certificate of completion is awarded to candidates with at-least 75% merit grade and 75% attendance

Course Fees:

Beginners	Intermediate	Advanced
INR 10,000	**INR 20,000**	**INR 75,000**

- Including GST
- Installments facility available
- Scholarships for meritorious candidates

Trainer profile:

Dr. Amita Mukhopadhyay

Professor-IIHMR Bangalore

Dr. Amita Mukhopadhyay is an experienced physician, teacher, and epidemiological researcher with publications in several national and international medical journals. She earned a gold medal in ENT-Ophthalmology during MBBS, and was a top ranker in MD Community Medicine from Mumbai University. She is highly skilled in research methodology and complex statistical analysis.

Dr. Mukhopadhyay is an expert in the emerging field of Graph Theory and Social Network Analysis, having co-authored a pioneering research article on network analysis of COVID transmission (published by Cambridge University Press), and has taught graph theory with hands on demonstrations of software and analysis as invited speaker at MS Ramaiah Institute of Technology, Bangalore. Before joining IIHMR, Dr. Mukhopadhyay worked as Associate Professor of Community Medicine at Dr. Chandramma Dayananda Sagar Institute of Medical Education and Research, where she was acting Head of Department, member of the Institutional Ethics Committee (IEC), member of the Medical Education Technologies Unit (MEU), and Nodal Officer of the 2021 Delta wave COVID Response Team.

About IIHMR Bangalore:

Institute of Health Management Research, Bangalore (IIHMR, Bangalore) is a premier Institute for Hospital and Health management education in South India. IIHMR Bangalore has a legacy over a decade for imparting Health and Hospital management education, Training and Research activities in South India. IIHMR, Bangalore offers 2 years full-time PGDM (Post Graduate Diploma in Hospital and Health Management) programme with specializations in Hospital Management, Health Management and Healthcare Information Technology (HIT). Our PGDM program is approved by AICTE, GoI; NBA accredited and accorded MBA equivalency by Association of Indian Universities (AIU). IIHMR Bangalore aims in providing leadership and competency building among health/hospital managers, planners, decision-makers, trainers, and research scientists at the national and international levels. The Learning and Development Centre at IIHMR Bangalore strives to bridge gap in skill and knowledge between professionals/students and healthcare Industry. The Institute is accredited by NABET, QCI as a consulting organization for NABH.

CONTACT US

Phone Number
+91-95352 66665
+91-73386 28338

Email Address
trainings@iihmrbangalore.edu.in

Website
www.iihmrbangalore.edu.in

Institute of Health Management Research,
Near Thimma Reddy Layout, Hulimangala Post, Electronic city Phase-I, Bangalore - 560105