

## Liverpool John Moores University

Title: INFORMATION AND SOCIAL NETWORKS  
Status: Definitive  
Code: **7102COMP** (121322)  
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics  
Teaching School/Faculty: Computer Science and Mathematics

Team	Leader
Somasundaram Ravindran	Y

**Academic Level:** FHEQ7      **Credit Value:** 20      **Total Delivered Hours:** 38  
**Total Learning Hours:** 200      **Private Study:** 162

### Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	12
Tutorial	24

**Grading Basis:** 50 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Group Assessment - An extended critical survey of one of the course topics.	50	
Exam	AS2	Examination.	50	2

### Aims

*To study how the social, technological, and natural worlds are connected.  
To understand how elementary graph-theoretic concepts may help understanding the structure and certain properties of networks.  
To understand the software development possibilities offered by the emergence of information and social networks environments.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Identify the main issues, techniques, and tools needed for the development of applications in the area of Information and social networks.
- 2 Use mathematical techniques to model and analyse structural and dynamical properties of networks.
- 3 Identify patterns of internal structure on the networks and their effects on the population.

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Critical survey	1	
Examination	2	3

## Outline Syllabus

*Fundamental ideas from social network analysis and framing a number of graph-theoretic concepts in these terms.*

*Web graph, link analysis for Web search.*

*Empirical studies of on-line social networks.*

*Technical issues in social networking such as large scale network modelling and the information propagation.*

## Learning Activities

Lectures followed by tutor led tutorial sessions.

## Notes

This course covers different scientific perspectives in its approach to understanding networks and behaviour.