Course Code	DA 2009					
Course Name	Data Collection	Data Collection Methods II				
Credit Value	2C	2C				
Core/Optional	Core	Core				
Prerequisites	None					
Hourly Breakdown	Theory	Practical	Independent Learning	Notional		
	20	20	60	100		

Course Aim:

To provide critical awareness of fundamental concepts and tools relevant to data collection from the web.

Intended Learning Outcomes:

After the successful completion of the course, the student will be able to

- CLO1: demonstrate awareness of fundamental concepts in data collection from the web
- CLO2: *identify* and *apply* suitable tools and techniques to extract data from the web
- CLO3: *practice* ethical standards and professional integrity in collecting data from the web

Course Content:

Introduction to web based data collection; different forms of data available in the web; collect data using python: introduction to python modules, basic HTML syntax, practical examples of data collection, usage of JSON APIs; challenges in web scraping: ethical scraping, dynamic pages, handling captcha; data extraction from pdf: read pdf tables and other information of pdf with proper format, extract data from text/excel/csv file, introduction to OCR and its applications.

Teaching / Learning Methods:

Lectures, Videos, Discussions, Practical Sessions, Group Activities, Presentations, LMS based activities, Independent Learning

Assessment Strategy:

Continuous Assessment 60%	Final Assessment 40%		
Details: Quizzes - 20% (CLO 1, 2) Case Studies - 40% (CLO 1, 2, 3)	Theory (%)	Practical (%) 40%	Other (%)

Recommended Reading:

• Mitchell, R. (2018). Web scraping with Python: Collecting more data from the modern web. "O'Reilly Media, Inc."