

TOPIC 8	Data Handling
SUB-TOPICS	<ul style="list-style-type: none"> ▪ ASCII and binary data ▪ saving MATLAB data in MATLAB format: .mat files ▪ using the save and load functions ▪ importing numeric data from spreadsheets: cut/paste ▪ importing spreadsheet data in table format ▪ storing data in dataset format ▪ importing image files ▪ 8-bit colour images ▪ basic image processing examples
OBJECTIVES	<p>by the end of this unit, students should be able to:</p> <ul style="list-style-type: none"> - import and export data in and out of MATLAB - create basic data summaries from spreadsheets - understand how 8-bit colour images are stored - use basic image manipulation techniques
KEY WORDS AND EXPRESSIONS	on MOLE
CORE STUDY MATERIALS	<ul style="list-style-type: none"> - Textbook selection (very little for this topic) - MATLAB Topic 8 Notes - Excel spreadsheets: <ul style="list-style-type: none"> i. sheffieldweather.xlsx (source: http://www.sheffieldweather.co.uk/Weather_Data.htm) ii. le.xlsx (World Bank Life Expectancy data) (raw data source: http://data.worldbank.org/indicator/SP.DYN.LE00.IN)
TEXTBOOK STUDY	<p>Essential Reading</p> <p>Chapter 4 <i>MATLAB Functions and Data Import-Export Utilities</i></p> <ul style="list-style-type: none"> - Section 4.2 (Importing and Exporting data) <p>Suggested links in the Topic 8 Notes.</p>
ADDITIONAL RESOURCES	It is recommended that students practice on data or images of their choice