Unit 3 Data analytics – Introduction

Slide 1:

* Welcome to the Unit 3 Data analytics presentation as part of the VCE Applied Computing Study Design for 2020-2023.
* The purpose of this presentation is to introduce you to Unit 3 Data analytics and to provide you with a brief overview of the outcomes.

Slide 2:

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Slide 3:

* We will now have a look at Unit 3 Data analytics.

Slide 4:

* In Unit 3 Data analytics there are the two following outcomes:
* Outcome 1 – Data analytics
* Outcome 2 – Analysis and design

Slide 5:

* We will now have a look at Unit 3 Outcome 1 Data analytics.

Slide 6:

* This table gives you an overview of the relationship between the:
* Key concepts
* Problem-solving methodology stages
* and the key knowledge within the outcome
* In Unit 3 Outcome 1 Data analytics we are dealing with:
* Data and information
* Problem-solving with the stages of analysis, design and development to produce spreadsheets, databases and data visualisations
* and Interactions and impact
* This is an extension of Unit 1 Outcome 1 dealing with more complex data sets and problem solving.
* The Key knowledge is briefly listed on the right of the table.

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* In Unit 3 Outcome 1 Data analytics, students should be able to:
* respond to teacher-provided solution requirements and designs
* extract data from large repositories
* manipulate and cleanse data, and
* apply a range of functions to develop software solutions to present findings
* Software tools will involve:
* Database, spreadsheet and data visualisation software.
* The task will contribute 10 per cent to the study score and the total marks will be out of 100.

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* Students will:
* interpret solution requirements and designs
* identify, select and extract relevant data from large repositories
* use a standard referencing system
* organise, manipulate and cleanse data
* use database and spreadsheet software
* create effective data visualisations, and
* develop and apply suitable validation and testing techniques.
* The assessment task is a SAC whereby:
* students will respond to teacher-provided solution requirements and designs to create software solutions, and
* students will address the VCAA performance descriptors.

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* We will now have a look at Unit 3 Outcome 2 Analysis and design.

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* This table gives you an overview of the relationship between the:
* Key concepts
* Problem-solving methodology stages
* and the key knowledge within the outcome
* In Unit 3 Outcome 2 Analysis and design we are dealing with:
* Digital systems
* Data and information
* Problem-solving with the stages of analysis and design to produce infographics or dynamic data visualisations
* and Interactions and impact
* Notice that the SAT structure involving the PSM stages of Analysis and Design now aligns with Software development.
* The key knowledge is briefly listed on the right of the table.

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* In Unit 3 Outcome 2 Analysis and design, students should be able to:
* propose a research question
* formulate a project plan
* collect and analyse data
* generate alternative design ideas, and
* represent the preferred design for creating infographics or dynamic data visualisations.
* Software tools will involve:
* At least one data manipulation tool and one visualisation tool, for example database software, spreadsheet software, data visualisation software and a tool for planning a project.
* The SAT task for Unit 3 Outcome 2 will contribute 15 per cent to the study score. Both Unit 3 Outcome 2 and Unit 4 Outcome 1 contribute 30 per cent to the study score.

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* Students will:
* frame a research question
* analyse and document solution requirements, constraints and scope
* search, download, browse and reference data sets
* use design tools to represent the functionality and appearance of infographics or dynamic data visualisations
* generate alternative design ideas
* develop evaluation criteria to select designs
* produce detailed designs
* propose and apply methods to secure stored data, and
* create, monitor and modify project plans.
* The assessment task is Part 1 of the SAT whereby:
* students will address the analysis and design stages of the problem-solving methodology, and
* students will address the VCAA SAT Criteria.

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* For further information please contact:
* The Curriculum Manager of Digital Technologies at the Victorian Curriculum and Assessment Authority.
* Thank you for watching this video.