Course Title:	**Text and Vision Intelligence**
Course Code:	**COMP700**
Descriptor Start Date:	**01/01/2026**
POINTS:	**15.00**
LEVEL:	**7**
PREREQUISITE/S:	**None**
COREQUISITE/S:	**None**
RESTRICTION/S:	**None**

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 150

PRESCRIPTOR

Language and vision are fundamental to human perception and cognition, yet there is relatively little understanding of how the two interact or operate together at a system level to aid learning and recognition. This paper covers fundamental and advanced aspects of language (especially text) and vision from an artificial intelligence perspective. The primary focus is on practical algorithms, tools and systems of text, vision intelligence, as well as their performance evaluation. Techniques of representing information in semi-formal languages such as Standard Generalized Markup Language (SGML) and free text are compared. The issues associated with representation and extraction of information encapsulated in textual and visual formats, such as the semantic unit perceived as an event, will be explored. Examples of text and visual modelling techniques such as probabilistic and vector models will be used to illustrate AI applications.

LEARNING OUTCOMES

1. Critically apply text modelling AI theories, algorithms, and techniques to solve complex problems.
2. Design and construct text-based AI models and systems
3. Appraise the process of automatic extraction of knowledge encoded in free texts data.
4. Critically apply vision modelling AI theories, algorithms, and techniques to solve complex problems.
5. Design and construct vision AI models and systems
6. Appraise the process of automatic extraction of knowledge encoded in free vision data.

CONTENT

- Structure of free text.
- Feature representation in textual formats.
- Basic pre-processing techniques for processing text and images.
- Models of text and visual intelligence.
- Knowledge-based event computing in text and image data.
- Evaluation of text and image processing algorithms.
- AI theory for text and visual analytics.
- Techniques related to text and visual analytics, text-based image/video tagging, social network tagging, etc.

LEARNING & TEACHING STRATEGIES

– The practical part of the course will be conducted in contemporary programming languages and tools
– The learning and teaching will be done via, lectures, demo, labs, formative quizzes

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Assessment 1	50.00	1,5,6
Assessment 2	50.00	2,3,4

Grade Map **MAP1**

A+ A A- Pass with Distinction
B+ B B- Pass with Merit
C+ C C- Pass
D Fail

Overall requirement/s to pass the course:

To pass this course, students must achieve a minimum overall grade of C-.

LEARNING RESOURCES

All resources are provided as lecture notes, which will include additional references to research papers, textbook chapters, datasets and online resources.

For further information, contact: Te Ara Auaha - Faculty of Design & Creative Technologies

Principal Programme:	**AK3697, Bachelor of Computer and Information Sciences**
Related Programme/s:	**AK3698** **AK1041** **AK3001** **AK3003** **AK3756** **AK3706**