

2024 / 25

School of Science and Computing

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🌐 [www.wit.ie/schools/science\\_computing](http://www.wit.ie/schools/science_computing)



**SE  
TU**

Ollscoil  
Teicneolaíochta  
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South East  
Technological  
University

## Module Descriptor

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### Business Intelligence (Computing and Mathematics)

# Business Intelligence (A14161)

**Short Title:** Business Intelligence  
**Department:** Computing and Mathematics  
**Credits:** 10

**Level:** Postgraduate

## Description of Module / Aims

In this module students will learn about business intelligence (BI) concepts, methods, and processes for decision support and business process improvement. The student will gain an in-depth theoretical understanding of organisation memory, information integration, insight creation, information presentation and business performance management methods. The student will have both a theoretical knowledge of relevant business intelligence concepts, as well as the practical application of tools and experiences of their use.

## Programmes

stage/semester/status		
Certificate in Business Intelligence (WD_KBUSS_MA)	/	/ M
BUSS-0057 MSc in Computer Science (Enterprise Software Systems) (WD_KCESS_R)	1 / 0	/ E

## Indicative Content

- Conceptual foundations of BI
- Organisation memory – relevant technologies for developing and managing structured data
- Accessing, cleansing and integrating different types of data
- Information integration – integration of information from text, web mining and Big Data
- Insight creation - data mining – methods and techniques
- Information presentation – visual analytics, enterprise reporting and business performance management methods
- Major ethical and legal issues of BI implementation
- Explore emerging technologies and trends in BI

## Learning Outcomes

*On successful completion of this module, a student will be able to:*

1. Appraise BI concepts, processes and technologies.
2. Produce a plan for the application of BI for decision support and process improvement in a business environment.
3. Assess the concepts, processes and recommended use of organisation memory to store data.
4. Interpret data using data mining, text and web mining techniques.
5. Evaluate and use reporting and visualization tools to visualise data to support and improve decision making.
6. Appraise big data analytics and emerging technologies.

## Learning and Teaching Methods

- This module will be presented using a combination of formal lectures and practical classes. Lectures will introduce concepts and an emphasis will be placed on interaction, discussions and in-class exercises.
- In practical classes, students will engage with BI software and will work on case studies and exercises.

## Learning Modes

Learning Type	F/T Hours	P/T Hours
Lecture	24	24
Lab	24	24
Independent Learning	222	222

## Assessment Methods

	Weighting	Outcomes Assessed
Continuous Assessment	100%	
Project	100%	1,2,3,4,5,6

## Assessment Criteria

<40%: Unable to interpret and describe key concepts of BI.

40%–59%: Be able to interpret and discuss key concepts of BI and the ability to discover and integrate related knowledge in other data and information system modules.

60%–69%: Be able to solve problems within BI by experimenting with the appropriate skills and tools.

70%–100%: All the above to an excellent level. Be able to analyse and design solutions to a high standard for a range of both complex and unforeseen problems through the use and modification of appropriate skills and tools.

## Supplementary Material(s)

- "Teradata University Network." <http://www.teradatauniversitynetwork.com/tun/>
- Minelli, M., M. Chambers and A. Dhiraj. *Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses*. 1st ed.. New York: Wiley, 2013.
- Sabherwal, R. and I. Becerra-Fernandez. *Business Intelligence*. 1st ed.. New York: Willey, 2011.
- Sharda, R., D. Delen and E. Turban. *Business Intelligence: A Managerial Approach*. 3rd ed.. New York: Prentice Hall, 2014.

## Requested Resources

- Room Type: Computer Lab