

Programme specification

1. Overview / factual information

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Programme/award title(s)	a. B.Sc. (Honours) in Business Analytics b. B.Sc. (Ord) in Business Analytics c. Diploma in Higher Education (DipHE) in Business Analytics d. Certificate in Higher Education (CertHE) in Business Analytics
Teaching Institution	Deree - The American College of Greece
Awarding Institution	The Open University UK (OU)
Date of first OU validation	April 1, 2025
Date of latest OU (re)validation	
Next revalidation	
Credit points achieved for the award	360
UCAS Code (if applicable)	
HECoS Code (if applicable)	
LDCS Code (FE Colleges England only	
Programme start date and cycle of starts if appropriate.	
Underpinning QAA subject benchmark(s)	 Business and Management, March 2023 Computing, March 2022 Mathematics, Statistics, and Operational Research, March 2023
Other external and internal reference points used to inform programme outcomes (including QAA Characteristics Statements). For apprenticeships, the standard or framework against which it will be delivered.	
Professional/statutory/ accreditation recognition	
For apprenticeships fully or non-integrated Assessment. If fully integrated, EPAO being used.	
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face) Apprenticeship	



Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they takes full advantage of the learning opportunities that are provided.

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in student module guide(s) and the students handbook.

The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.

Duration of the programme for each mode of study	FT-3 years			
Dual accreditation (if applicable)	NECHE Accredited			
Date of production/revision of this specification	January 10, 2025			

2. Programme overview

2.1 Educational aims and objectives

The Business Analytics program is reviewed and administered in line with the College's and School's overall mission, as shown below.

The American College of Greece Mission

To add distinctive and sustainable value to our students as well as to Greece, American education, Hellenic heritage, and the global community through transformative teaching, scholarship, and service.

School of Business and Economics mission

Deree School of Business and Economics is committed to providing academically rigorous economics and business and programs that equip students with knowledge and thinking skills grounded on liberal education, economics foundations, business functions and sound specialization components.

Business Analytics Program Mission

In congruence with the mission statements of the College and the School of Business and Economics, the B.Sc. in Business Analytics aims to provide students with an academic experience that fosters the development of competencies in leveraging data and analytical techniques to solve business problems across multiple contexts. Graduates of this degree program are prepared for careers in the global field of business analytics, such as data analyst, business intelligence analyst, or may choose to continue their education in graduate school.



Business Analytics Program Goals:

The goals of the Business Analytics program are to produce graduates who are able to:

- 1. Utilize and interpret business analytics in diverse business settings to enhance decision-making processes.
- 2. Acquire and apply analytical skills to address complex business problems, enabling informed decisions based on data and analytical techniques.
- 3. Apply problem-solving skills to develop data-driven solutions and models that support business strategies.
- 4. Understand the relationship between business analytics, organizational processes, and management, and demonstrate how data analytics can drive organizational transformation.
- 5. Identify professional and academic career paths by understanding the roles, responsibilities, and ethical considerations related to the use of business analytics in organizations.

Program Learning Outcomes (PLOs):

The program's learning outcomes specify that upon completion of the program, Business Analytics graduates will be able to:

- 1. Demonstrate knowledge and understanding of business functions, structures, and processes
- 2. Identify legal and ethical principles applied to decision-making contexts
- 3. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights.
- 4. Evaluate business analytics solutions to measure organizational performance and facilitate decision-making.
- 5. Present data insights and recommendations to stakeholders
- 6. Develop decision support models in support of business strategy.

For successfully measuring and depicting how subject-specific and generic skills are achieved through the programme, a set of module-specific learning outcomes are mapped against and tightly coupled with each one of the six programme learning outcomes (PLOs).

In terms of **Knowledge and Understanding** Graduates of the BSc (Honours) in Business Analytics award will have met the following learning outcomes:

- A.1. Demonstrate knowledge and understanding of business functions, structures, and processes (PLO #1):
 - A.1.1: Understand macroeconomic theories, financial accounting principles, and their application to prepare and interpret financial statements, taxation, and fiscal and monetary policy.
 - A.1.2: Analyse operational systems and marketing strategies, including consumer behaviour and the marketing mix, to improve business performance across contexts.
 - A.1.3: Analyse and design business processes for improved efficiency and automation using modern technologies.



- A.1.4: Integrate knowledge from business disciplines to propose data-driven, strategic solutions.
- A.2. Identify legal and ethical principles applied to decision-making contexts (PLO #2):
 - A.2.1: Understand ethical and security considerations in designing and using business information systems.
 - A.2.2: Evaluate the impact of data privacy regulations, such as GDPR, on business operations and cybersecurity.
 - A.2.3: Examine information systems' ethical and strategic roles in business transformation and decision-making.
 - A.2.4: Design IT-enabled business solutions while addressing ethical, legal, and operational concerns.

In terms of **Cognitive Skills** Graduates of the BSc (Honours) in Business Analytics award will have met the following learning outcomes:

- B.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights (PLO #3):
 - B.1.1: Apply advanced mathematical techniques, including calculus and linear algebra, to solve real-life business problems.
 - B.1.2: Conduct statistical analyses using techniques such as regression, ANOVA, and hypothesis testing for empirical research.
 - B.1.3: Develop and manage databases for effective decision-making using modern tools.
 - B.1.4: Apply financial analysis principles, including investment evaluation and time value of money concepts.
 - B.1.5: Use data visualization and exploratory techniques to support insights and strategic decisions.
 - B.1.6: Apply machine learning and advanced analytics techniques to derive actionable business insights.
- B.2. Evaluate business analytics solutions to measure organizational performance and facilitate decision-making (PLO #4):
 - B.2.1: Design and implement business process automation to optimize workflows and enhance efficiency.
 - B.2.2: Develop dashboards and visual tools to monitor organizational performance and inform decisions.
 - B.2.3: Solve business challenges using algorithmic thinking and programming tools.
 - B.2.4: Use AI and machine learning models to assess and improve organizational performance.

In terms of **Practical/Professional Skills** Graduates of the BSc (Honours) in Business Analytics award will have met the following learning outcomes:

- C.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights (PLO #3):
 - C.1.1: Use coding and database tools to address business challenges and support decision-making.



- C.1.2: Develop machine learning models and advanced analytics solutions to support business strategies.
- C.1.3: Apply optimization techniques to improve business processes and outcomes.
- C.2. Present data insights and recommendations to stakeholders (PLO #5):
 - C.2.1: Create visualizations and reports that translate complex data into actionable insights.
 - C.2.2: Deliver professional presentations that synthesize analytical findings and recommendations.
 - C.2.3: Use business intelligence tools to craft strategies and recommendations.

In terms of **Key/Transferable Skills** Graduates of the BSc (Honours) in Business Analytics award will have met the following learning outcomes:

- D.1. Develop decision support models in support of business strategy (PLO #6):
 - D.1.1: Develop and apply mathematical models for decision-making and business optimization.
 - D.1.2: Design and implement advanced analytics models, including machine learning, for strategic planning.
 - D.1.3: Create comprehensive decision support systems synthesizing knowledge across disciplines.
- D.2. Present data insights and recommendations to stakeholders (PLO #5):
 - D.2.1: Design and present visualizations and reports that align with stakeholder needs.
 - D.2.2: Deliver professional recommendations using advanced analytics to support organizational objectives.
 - D.2.3: Manage stakeholder expectations through clear communication and actionable deliverables.

2.2 Relationship to other programmes and awards

(Where the award is part of a hierarchy of awards/programmes, this section describes the articulation between them, opportunities for progression upon completion of the programme, and arrangements for bridging modules or induction)

This programme specification is part of a US bachelor's degree programme, awarded with a total of 121 US credits and consisting of:

- The Liberal Education curriculum (43 US credits)
- Concentration (72 US 360 UK credits)
- General electives (6 US credits).



The Liberal Education curriculum can be found in the table below:

eral Education	US credits	43
Core courses:		
WP 1010 Introduction to Academic Writing	3	
WP 1111 Integrated Academic Writing & Ethics	3	
WP 1212 Academic Writing and Research	3	
HC 2300 Professional Communication	3	
CS 1070 Introduction to Information Systems	3	
MA 2131 Calculus I - L4	3	
Any Natural Science course with a lab	4	
Liberal Education Electives:		
LE designated course in STEM/Natural Sciences	3	
LE designated courses in Social and Behavioral Sciences	9	
Required:		
EC 1000 Principles of Microeconomics		
EC 1100 Principles of Macroeconomics		
LE designated courses in Humanities	6	
Required:		
PH 3005 Business Ethics - L5		
LE designated course in Fine and Performing Arts	3	

Please see Appendix 2, page 45, for the Liberal Education mission, competencies and learning outcomes.

2.3 For Foundation Degrees, please list where the 60-credit work-related learning takes place. For apprenticeships an articulation of how the work based learning and academic content are organised with the award.

N/A

2.4 List of all exit awards

- a. B.Sc. (Honours) in Business Analytics
- b. B.Sc. (Ord) in Business Analytics
- c. Diploma in Higher Education (DipHE) in Business Analytics
- d. Certificate in Higher Education (CertHE) in Business Analytics

For the description of the Exit Awards, please see Appendix 3, page 47.



3. Programme structure and learning outcomes

The BSc. (Honours) in Business Analytics programme structure is presented per level in the table below:

B.Sc. (Hons) Business Analytics

Programme structure

BAN 1023 Introduction to Data Science	15 15	level 5	level 6
CS 2170 Pusinges Information Systems	15		
CS 2179 Business Information Systems			
MA 2027 Linear Algebra	15		
AF 2007 Financial Accounting	15		
FN 2028 Principles of Finance	15		
MA 2021 Applied Statistics	15		
MG 2063 Principles of Operations Management	15		
MA 2131 Calculus I	15		
MA 3240 Calculus II		15	
CS 3155 Exploratory Data Analysis for Business		15	
CS 3245 Data Management for Business		15	
BAN 3333 Business Process Automation		15	
CS 3153 Business Problem Solving		15	
PH 3005 Business Ethics		15	
ITC 3036 Privacy, Policy, Law and Technology		15	
MA 3232 Numerical Methods or		15	
MA 3323 Ordinary Differential Equations		15	
CS 4267 Applied Business Analytics			15
CS 4252 Vizualization and Reporting			15
BAN 4342 Applied Machine Learning			15
CS 4249 Business Intelligence			15
MG 4057 Project Management			15
BAN 4848 Advanced Business Analytics			15
BAN 4950 Capstone Project in Business Analytics			15
MA 4345 Calculus III or			
MA 4333 Mathematical Statistics			15
Total per Level	120	120	120

Grand total: 360



Programme structure and learning outcomes (cont.)

Programme Structure - LEVEL 4					
Compulsory modules	Credit points	Optional modules	Credit points	Is module compensatable?	Semester runs in
BAN 1023 Introduction to Data Science *	15				Fall
CS 2179 Business Information Systems	15				Fall
MA 2027 Linear Algebra *	15				Fall
AF 2007 Financial Accounting	15				Fall
FN 2028 Principles of Finance	15				Spring
MA 2021 Applied Statistics	15				Spring
MG 2063 Principles of Operations Management	15				Spring
MA 2131 Calculus I	15				Spring
TOTAL LEVEL 4	120				

^{*} To be validated

Note: all other modules are already validated.



Intended learning outcomes at Level 4 are listed below:

Learning Outcomes – LEVEL 4

Learning and teaching strategy

In congruence with the teaching and learning strategy of the college, the following methods are used at Level 4:

- Classes consist of lectures, discussions, collaborative in-class small projects or case studies and specialized video presentations as appropriate. Throughout the lectures students develop knowledge and understanding related to the subject content. Discussions and collaborative in-class small projects reinforce students' cognitive and key transferable skills. Specialized video presentations familiarize students with industry and professional practices and help them connect abstract concepts to the 'real world'.
- Classes at Level 4 are interactive and student engagement in the learning process is mainly pursued through their active participation in class. Additionally, through individual course work students are required to make use of the library and become familiar with library resources, hence making a first step towards independent learning.
- Teaching is supported by instructors' office hours. All academic staff, regardless of their rank or seniority, have a contractual obligation to keep one (1) office hour per week per module during semesters. Students are encouraged to make full use of office hours, where they can ask questions, see their exam paper(s) and/or assessed coursework, and/or go over lecture material. Students are encouraged to make full use of the office hours of their instructor in order to consult and discuss issues related to the course's content.
- Teaching staff and students make full use of the Blackboard CMS (Course Management System) platform, where professors post lecture notes, instructions, timely announcements, assignments, quizzes, etc.
- Student learning is guided by the teaching staff and provides the ground for students to lay the foundations for more demanding modules at level 5.

Assessment methods

- Assessment of student performance involves a reasonable mix of assessment methods (including seen or unseen examinations) and may incorporate both "formative" ("diagnostic" evaluation that provides feedback in order to improve learning) along with "summative" (evaluation that tests whether students have mastered the learning outcomes of a programme) evaluation tools.
- Formative assessments examples are online multiple-choice quizzes, take-home assignments, case problem analyses, programming problems and computer lab assignments, group assignments and team coursework, and presentations. They do not contribute to the student's grade.



- Summative assessment includes unseen written exams, coursework, research papers and research projects. Summative assessments do
 contribute to the student's grade. Each summative assessment tests one or more learning outcomes of the module. Teaching staff must
 provide in-class or online feedback to students on any assessment within 21 days of submission. Such feedback serves a tool for reflection
 by informing students to what extent they have met learning outcomes and provide guidance on how to improve their future work. Summative
 assessments at this level include: coursework, midterm examination and final examination.
- Examinations consist of open essay-type questions and/or problem-solving exercises. The midterm examination takes place half-way through the module, whereas the final examination takes place at the end of the module. Instructors typically provide feedback on the first assessment to students in class. Such feedback informs students to what extent they have met learning outcomes and provide guidance on how to improve their future work. At their own initiative, students also have the opportunity to receive feedback on their final assessment.



3A. Knowledge and understanding		
Learning outcomes:		
A.1. Demonstrate knowledge and understanding of business functions, structures, and processes	Taught and assessed in:	
A.2. Identify legal and ethical principles applied to decision-making contexts		



- A.1.1: Understand macroeconomic theories, financial accounting principles, and their application to prepare and interpret financial statements, taxation, and fiscal and monetary policy.
- A.1.2: Analyse operational systems and marketing strategies, including consumer behaviour and the marketing mix, to improve business performance across contexts.
- A.1.3: Analyse and design business processes for improved efficiency and automation using modern technologies.
- A.1.4: Integrate knowledge from business disciplines to propose data-driven, strategic solutions
- A.2.1: Understand ethical and security considerations in the design and use of business information systems.
- A.2.2: Evaluate the impact of data privacy regulations, such as GDPR, on business operations and cybersecurity.
- A.2.3: Examine the ethical and strategic roles of information systems **A.2.2**: in business transformation and decision-making.
- A.2.4: Design IT-enabled business solutions while addressing ethical, legal, and operational concerns.

A.1.1:

AF 2007 Financial Accounting

A.1.2:

MG 2063 Principles of Operations Management

A.1.3:

BAN 1023 Introduction to Data Science

A.1.4:

CS 2179 Business Information Systems

A.2.1:

CS 2179 Business Information Systems BAN 1023 Introduction to Data Science

CS 2179 Business Information Systems

A.2.3:

CS 2179 Business Information Systems

A.2.4:

CS 2179 Business Information Systems BAN 1023 Introduction to Data Science



3B. Cognitive skills				
Learning outcomes:				
B.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights	Taught and assessed in:			
B.2. Evaluate business analytics solutions to measure organizational performance and facilitate decision-making				
 B.1.1: Apply advanced mathematical techniques, including calculus and linear algebra, to solve real-life business problems. B.1.2: Conduct statistical analyses using techniques such as regression, ANOVA, and hypothesis testing for empirical research. B.1.3: Develop and manage databases for effective decision-making using modern tools. B.1.4: Apply financial analysis principles, including investment evaluation and time value of money concepts. B.1.5: Use data visualization and exploratory techniques to support insights and strategic decisions. B.1.6: Apply machine learning and advanced analytics techniques to derive actionable business insights. B.2.1: Design and implement business process automation to optimize workflows and enhance efficiency. B.2.2: Develop dashboards and visual tools to monitor organizational performance and inform decisions. B.2.3: Solve business challenges using algorithmic thinking and programming tools. 	B.1.1: MA 2027 Linear Algebra MA 2131 Calculus I B.1.2: MA 2021 Applied Statistics B.1.3: BAN 1023 Introduction to Data Science B.1.4: FN 2028 Principles of Finance B.1.5: BAN 1023 Introduction to Data Science MA 2021 Applied Statistics B.1.6: BAN 1023 Introduction to Data Science			



B.2.4: Use AI and machine learning models to assess and improve organizational performance.

B.2.1:

BAN 1023 Introduction to Data Science MG 2063 Principles of Operations Management

B.2.2:

CS 2179 Business Information Systems MG 2063 Principles of Operations Management

B.2.3:

BAN 1023 Introduction to Data Science CS 2179 Business Information Systems

B.2.4:

BAN 1023 Introduction to Data Science



3C. Practical and professional skills				
Learning outcomes:				
C.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights	Taught and assessed in:			
C.2. Present data insights and recommendations to stakeholders				
C.1.1: Use coding and database tools to address business challenges and support decision-making.	C.1.1: BAN 1023 Introduction to Data Science			
C.1.2: Develop machine learning models and advanced analytics solutions to support business strategies.	C.1.2: BAN 1023 Introduction to Data Science			
C.1.3: Apply optimization techniques to improve business processes and outcomes.	C.1.3:			
C.2.1: Create visualizations and reports that translate complex data into actionable insights.	MA 2027 Linear Algebra MA 2131 Calculus I			
C.2.2: Deliver professional presentations that synthesize analytical findings and recommendations. C.2.3: Use business intelligence tools to craft strategies and	C.2.1: MA 2021 Applied Statistics			
recommendations.	C.2.2: CS 2179 Business Information Systems			
	C.2.3: CS 2179 Business Information Systems			



3D. Key/transferable skills				
Learning outcomes:				
D.1. Develop decision support models in support of business strategy	Taught and assessed in:			
D.2. Present data insights and recommendations to stakeholders				
D.1.1: Develop and apply mathematical models for decision-making and business optimization.	D.1.1: MA 2027 Linear Algebra Calculus I			
D.1.2: Design and implement advanced analytics models, including machine learning, for strategic planning.	D.1.2:			
D.1.3: Create comprehensive decision support systems synthesizing knowledge across disciplines.	BAN 1023 Introduction to Data Science			
D.2.1: Design and present visualizations and reports that align with stakeholder needs.	D.1.3: CS 2179 Business Information Systems			
D.2.2: Deliver professional recommendations using advanced analytics to support organizational objectives.D.2.3: Manage stakeholder expectations through clear communication and actionable deliverables.	D.2.1: MA 2021 Applied Statistics D.2.2: CS 2179 Business Information Systems			
	D.2.3: CS 2179 Business Information Systems			

Please see Appendix 1, page 42, for the curriculum map of level 4 modules and the respective learning outcomes.



Title of exit award at Level 4: Certificate in Higher Education (CertHE) in Business Analytics

Students that exit the programme upon completion of Level 4 (having obtained 120 L4 credits) will be eligible for the award of a Certificate of Higher Education (CertHE) in Business Analytics.

Certificate in Higher Education (CertHE) in Business Analytics (120 credits)

Compulsory Modules:

Level 4

AF 2007 Financial Accounting - 15 credits

BAN 1023 Introduction to Data Science - 15 credits

CS 2179 Business Information Systems - 15 credits

MA 2027 Linear Algebra – 15 credits

MA 2021 Applied Statistics – 15 credits

FN 2028 Principles of Finance – 15 credits

MG 2063 Principles of Operations Management – 15 credits

MA 2131 Calculus I - 15 credits

Optional Modules: None



Programme Structure - LEVEL 5					
Compulsory modules	Credit points	Optional modules	Credit points	Is module compensatable?	Semester runs in
MA 3240 Calculus II *	15				Fall
CS 3155 Exploratory Data Analysis for Business *	15				Fall
CS 3245 Data Management for Business	15				Fall
BAN 3333 Business Process Automation *	15				Fall
CS 3153 Business Problem Solving	15				Spring
PH 3005 Business Ethics	15				Spring
ITC 3036 Privacy, Policy, Law and Technology	15				Spring
MA 3232 Numerical Methods * or MA 3323 Ordinary Differential Equations *	15				Spring
TOTAL LEVEL 5	120				

^{*} To be validated

Note: all other modules are already validated.



Intended learning outcomes at Level 5 are listed below:

Learning Outcomes – LEVEL 5

Learning and teaching strategy

In congruence with the teaching and learning strategy of the college, the following methods are used at Level 4:

- Classes consist of lectures, discussions, collaborative in-class small projects or case studies and specialized video presentations as appropriate. Throughout the lectures students develop knowledge and understanding related to the subject content. Discussions and collaborative in-class small projects reinforce students' cognitive and key transferable skills. Specialized video presentations familiarize students with industry and professional practices and help them connect abstract concepts to the 'real world'.
- Classes at Level 4 are interactive and student engagement in the learning process is mainly pursued through their active participation in class.
 Additionally, through individual course work students are required to make use of the library and become familiar with library resources, hence making a first step towards independent learning.
- Teaching is supported by instructors' office hours. All academic staff, regardless of their rank or seniority, have a contractual obligation to keep one (1) office hour per week per module during semesters. Students are encouraged to make full use of office hours, where they can ask questions, see their exam paper(s) and/or assessed coursework, and/or go over lecture material. Students are encouraged to make full use of the office hours of their instructor in order to consult and discuss issues related to the course's content.
- Teaching staff and students make full use of the Blackboard CMS (Course Management System) platform, where professors post lecture notes, instructions, timely announcements, assignments, guizzes, etc.
- Student learning is guided by the teaching staff and provides the ground for students to lay the foundations for more demanding modules at level 5.

Assessment methods

- Assessment of student performance involves a reasonable mix of assessment methods (including seen or unseen examinations) and may
 incorporate both "formative" ("diagnostic" evaluation that provides feedback in order to improve learning) along with "summative" (evaluation
 that tests whether students have mastered the learning outcomes of a programme) evaluation tools.
- Formative assessments examples are online multiple-choice quizzes, take-home assignments, case problem analyses, programming problems and computer lab assignments, group assignments and team coursework, and presentations. They do not contribute to the student's grade.



- Summative assessment includes unseen written exams, coursework, research papers and research projects. Summative assessments do
 contribute to the student's grade. Each summative assessment tests one or more learning outcomes of the module. Teaching staff must
 provide in-class or online feedback to students on any assessment within 21 days of submission. Such feedback serves a tool for reflection
 by informing students to what extent they have met learning outcomes and provide guidance on how to improve their future work. Summative
 assessments at this level include: coursework, midterm examination and final examination.
- Examinations consist of open essay-type questions and/or problem-solving exercises. The midterm examination takes place half-way through the module, whereas the final examination takes place at the end of the module. Instructors typically provide feedback on the first assessment to students in class. Such feedback informs students to what extent they have met learning outcomes and provide guidance on how to improve their future work. At their own initiative, students also have the opportunity to receive feedback on their final assessment.



3A. Knowledge and understanding				
Learning outcomes:				
A.1. Demonstrate knowledge and understanding of business functions, structures, and processes	Taught and assessed in:			
A.2. Identify legal and ethical principles applied to decision-making contexts				
A.1.3: Analyze and design business processes for improved efficiency and automation using modern technologies.	A.1.3: BAN 3333 Business Process Automation			
A.1.4: Integrate knowledge from business disciplines to propose data-driven, strategic solutions A.2.1: Understand ethical and security considerations in the design and use of business information systems. A.2.2: Evaluate the impact of data privacy regulations, such as GDPR, on business operations and cybersecurity. A.2.3: Examine the ethical and strategic roles of information systems in business transformation and decision-making.	A.1.4: CS 3155 Exploratory Data Analysis for Business CS 3245 Data Management for Business A.2.1: PH 3005 Business Ethics ITC 3036 Privacy, Policy, Law and Technology A.2.2: PH 3005 Business Ethics ITC 3036 Privacy, Policy, Law and Technology A.2.3: PH 3005 Business Ethics ITC 3036 Privacy, Policy, Law and Technology ITC 3036 Privacy, Policy, Law and Technology			



3B. Cognitive skills				
Learning outcomes: B.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights B.2. Evaluate business analytics solutions to measure	Taught and assessed in:			
B.1.1: Apply advanced mathematical techniques, including calculus and linear algebra, to solve real-life business problems. B.1.2: Conduct statistical analyses using techniques such as regression, ANOVA, and hypothesis testing for empirical research. B.1.3: Develop and manage databases for effective decision-making using modern tools. B.1.5: Use data visualization and exploratory techniques to support insights and strategic decisions. B.1.6: Apply machine learning and advanced analytics techniques to derive actionable business insights. B.2.3: Solve business challenges using algorithmic thinking and programming tools.	B.1.1: MA 3240 Calculus II MA 3232 Numerical Methods MA 3323 Ordinary Differential Equations B.1.2: CS 3155 Exploratory Data Analysis for Business B.1.3: CS 3245 Data Management for Business MA 3232 Numerical Methods CS 3153 Business Problem Solving B.1.5: CS 3155 Exploratory Data Analysis for Business B.2.3: CS 3155 Exploratory Data Analysis for Business CS 3155 Exploratory Data Analysis for Business CS 3245 Data Management for Business			



3C. Practical and professional skills		
Learning outcomes: C.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights	Taught and assessed in:	
C.2. Present data insights and recommendations to stakeholders		
C.1.1: Use coding and database tools to address business challenges and support decision-making.	C.1.1: BAN 3333 Business Process Automation	
C.1.3: Apply optimization techniques to improve business processes and outcomes.C.2.1: Create visualizations and reports that translate complex data into actionable insights.	C.1.3: MA 2240 Calculus II CS 3245 Data Management for Business MA 3232 Numerical Methods	
	MA 3323 Ordinary Differential Equations C.2.1: CS 3155 Exploratory Data Analysis for Business CS 3245 Data Management for Business	



3D. Key/transferable skills		
Learning outcomes:		
D.1. Develop decision support models in support of business strategy	Taught and assessed in:	
D.2. Present data insights and recommendations to stakeholders		
D.1.1: Develop and apply mathematical models for decision-making and business optimization. D.1.3: Create comprehensive decision support systems synthesizing knowledge across disciplines. D.2.1: Design and present visualizations and reports that align with stakeholder needs.	D.1.1: MA 3240 Calculus II MA 3232 Numerical Methods MA 3323 Ordinary Differential Equations CS 3153 Business Problem Solving D.1.3: BAN 3333 Business Process Automation CS 3155 Exploratory Data Analysis for Business CS 3245 Data Management for Business D.2.1: CS 3245 Data Management for Business	

Please see Appendix 1, page 43, for the curriculum map of level 5 modules and the respective learning outcomes.



Title of exit award at Level 5: Diploma in Higher Education (DipHE) in Business Analytics

Students that exit the programme upon completion of Level 4 and Level 5 (having obtained 120 credits at each level) will be eligible for the award of a Diploma of Higher Education (DipHE) in Business Analytics.

Diploma in Higher Education (DipHE) in Business Analytics (240 credits)

Compulsory Modules:

Level 4

AF 2007 Financial Accounting - 15 credits

BAN 1023 Introduction to Data Science - 15 credits

CS 2179 Business Information Systems – 15 credits

MA 2027 Linear Algebra – 15 credits

MA 2021 Applied Statistics – 15 credits

FN 2028 Principles of Finance – 15 credits

MG 2063 Principles of Operations Management – 15 credits

MA 2131 Calculus I – 15 credits

Level 5

PH 3005 Business Ethics – 15 credits

MA 3240 Calculus II - 15 credits

CS 3245 Data Management for Business – 15 credits

CS 3153 Business Problem Solving – 15 credits

CS 3155 Exploratory Data Analysis for Business – 15 credits

BAN 3333 Business Process Automation – 15 credits

ITC 3036 Privacy, Policy, Law and Technology - 15 credits

MA 3232 Numerical Methods – 15 credits or MA 3323 Ordinary Differential Equations – 15 credits

Optional modules: None



Programme Structure - LEVEL 6					
Compulsory modules	Credit points	Optional modules	Credit points	Is module compensatable?	Semester runs in
CS 4267 Applied Business Analytics	15				Fall
CS 4252 Vizualization and Reporting *	15				Fall
CS 4249 Business Intelligence	15				Fall
BAN 4342 Applied Machine Learning *	15				Fall
MG 4057 Project Management	15				Spring
BAN 4848 Advanced Business Analytics *	15				Spring
BAN 4950 Capstone Project in Business Analytics *	15				Spring
MA 4345 Calculus III * or MA 4333 Mathematical Statistics *	15				Spring
TOTAL LEVEL 6	120				

^{*} To be validated

Note: all other modules are already validated.



Intended learning outcomes at Level 6 are listed below:

Learning Outcomes – LEVEL 6

Learning and teaching strategy

In congruence with the teaching and learning strategy of the college, the following methods are used at Level 4:

- Classes consist of lectures, discussions, collaborative in-class small projects or case studies and specialized video presentations as appropriate. Throughout the lectures students develop knowledge and understanding related to the subject content. Discussions and collaborative in-class small projects reinforce students' cognitive and key transferable skills. Specialized video presentations familiarize students with industry and professional practices and help them connect abstract concepts to the 'real world'.
- Classes at Level 4 are interactive and student engagement in the learning process is mainly pursued through their active participation in class.
 Additionally, through individual course work students are required to make use of the library and become familiar with library resources, hence making a first step towards independent learning.
- Teaching is supported by instructors' office hours. All academic staff, regardless of their rank or seniority, have a contractual obligation to keep one (1) office hour per week per module during semesters. Students are encouraged to make full use of office hours, where they can ask questions, see their exam paper(s) and/or assessed coursework, and/or go over lecture material. Students are encouraged to make full use of the office hours of their instructor in order to consult and discuss issues related to the course's content.
- Teaching staff and students make full use of the Blackboard CMS (Course Management System) platform, where professors post lecture notes, instructions, timely announcements, assignments, quizzes, etc.
- Student learning is guided by the teaching staff and provides the ground for students to lay the foundations for more demanding modules at level 5.

Assessment methods

- Assessment of student performance involves a reasonable mix of assessment methods (including seen or unseen examinations) and may incorporate both "formative" ("diagnostic" evaluation that provides feedback in order to improve learning) along with "summative" (evaluation that tests whether students have mastered the learning outcomes of a programme) evaluation tools.
- Formative assessments examples are online multiple-choice quizzes, take-home assignments, case problem analyses, programming problems and computer lab assignments, group assignments and team coursework, and presentations. They do not contribute to the student's grade.



- Summative assessment includes unseen written exams, coursework, research papers and research projects. Summative assessments do
 contribute to the student's grade. Each summative assessment tests one or more learning outcomes of the module. Teaching staff must
 provide in-class or online feedback to students on any assessment within 21 days of submission. Such feedback serves a tool for reflection
 by informing students to what extent they have met learning outcomes and provide guidance on how to improve their future work. Summative
 assessments at this level include: coursework, midterm examination and final examination.
- Examinations consist of open essay-type questions and/or problem-solving exercises. The midterm examination takes place half-way through the module, whereas the final examination takes place at the end of the module. Instructors typically provide feedback on the first assessment to students in class. Such feedback informs students to what extent they have met learning outcomes and provide guidance on how to improve their future work. At their own initiative, students also have the opportunity to receive feedback on their final assessment.



3A. Knowledge and understanding		
Learning outcomes: A.1. Demonstrate knowledge and understanding of business functions, structures, and processes A.2. Identify legal and ethical principles applied to decision-making contexts	Taught and assessed in:	
A.1.3: Analyse and design business processes for improved efficiency and automation using modern technologies. A.1.4: Integrate knowledge from business disciplines to propose data-driven, strategic solutions A.2.1: Understand ethical and security considerations in the design and use of business information systems. A.2.4: Design IT-enabled business solutions while addressing ethical, legal, and operational concerns.	A.1.3: CS 4267 Applied Business Analytics BAN 4848 Advanced Business Analytics MG 4057 Project Management A.1.4: CS 4252 Visualization and Reporting A.2.1: CS 4249 Business Intelligence A.2.4: CS 4267 Applied Business Analytics BAN 4848 Advanced Business Analytics BAN 4950 Capstone Project in Business Analytics	



3B. Cognitive skills		
Learning outcomes: B.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights B.2. Evaluate business analytics solutions to measure organizational performance and facilitate decision-making	Taught and assessed in:	
B.1.1: Apply advanced mathematical techniques, including calculus and linear algebra, to solve real-life business problems.	B.1.1: MA 4345 Calculus III	
 B.1.2: Conduct statistical analyses using techniques such as regression, ANOVA, and hypothesis testing for empirical research. B.1.3: Develop and manage databases for effective decision-making using modern tools. B.1.5: Use data visualization and exploratory techniques to support insights and strategic decisions. B.1.6: Apply machine learning and advanced analytics techniques to derive actionable business insights. B.2.1: Design and implement business process automation to optimize workflows and enhance efficiency. B.2.2: Develop dashboards and visual tools to monitor organizational performance and inform decisions. B.2.3: Solve business challenges using algorithmic thinking and programming tools. B.2.4: Use AI and machine learning models to assess and improve organizational performance. 	B.1.2: BAN 4342 Applied Machine Learning MA 4333 Mathematical Statistics B.1.3: CS 4267 Applied Business Analytics BAN 4848 Advanced Business Analytics CS 4249 Business Intelligence B.1.5: BAN 4848 Advanced Business Analytics B.1.6: MA 4333 Mathematical Statistics BAN 4342 Applied Machine Learning B.2.2: CS 4252 Visualization and Reporting	



B.2.3: BAN 4848 Advanced Business Analytics BAN 4342 Applied Machine Learning
B.2.4: BAN 4848 Advanced Business Analytics BAN 4342 Applied Machine Learning



	nd professional skills	
Learning outcomes: C.1. Apply quantitative methods, technologies, and applications to address business problems and opportunities through business insights	Taught and assessed in:	
C.2. Present data insights and recommendations to stakeholders		
C.1.1: Use coding and database tools to address business challenges and support decision-making.	C.1.1: BAN 4342 Applied Machine Learning	
C.1.2: Develop machine learning models and advanced analytics solutions to support business strategies.	C.1.2: BAN 4342 Applied Machine Learning	
C.1.3: Apply optimization techniques to improve business processes and outcomes.	C.1.3:	
C.2.1: Create visualizations and reports that translate complex data into actionable insights.	CS 4252 Visualization and Reporting CS 4249 Business Intelligence	
C.2.2: Deliver professional presentations that synthesize analytical findings and recommendations.	MA 4333 Mathematical Statistics MA 4345 Calculus III	
C.2.3: Use business intelligence tools to craft strategies and recommendations.	C.2.1: CS 4267 Applied Business Analytics CS 4252 Visualization and Reporting	
	C.2.2: BAN 4950 Capstone Project in Business Analytics	



3D. Key/transferable skills		
Learning outcomes:		
D.1. Develop decision support models in support of business strategy	Taught and assessed in:	
D.2. Present data insights and recommendations to stakeholders		
D.1.1: Develop and apply mathematical models for decision-making and business optimization.	D.1.1: MA 4345 Calculus III	
D.1.2: Design and implement advanced analytics models, including machine learning, for strategic planning. D.1.3: Create comprehensive decision support systems synthesizing knowledge across disciplines.	D.1.2: MG 4057 Project Management D.1.3:	
D.2.1: Design and present visualizations and reports that align with stakeholder needs.	BAN 4848 Advanced Business Analytics CS 4249 Business Intelligence	
D.2.2: Deliver professional recommendations using advanced analytics to support organizational objectives. D.2.3: Manage stakeholder expectations through clear communication and actionable deliverables.	D.2.1: MG 4057 Project Management CS 4267 Applied Business Analytics D.2.2: BAN 4950 Capstone Project in Business Analytics CS 4267 Applied Business Analytics	
	D.2.3: BAN 4950 Capstone Project in Business Analytics	

Please see Appendix 1, page 44, for the curriculum map of level 6 modules and the respective learning outcomes.



Title of exit award at Level 6: B.Sc. (Ord) in Business Analytics

Students that exit the programme upon completion of 300 credits at Levels 4, 5 and 6 will be eligible for the award of an ordinary Bachelor's – B.Sc. (Ord) in Business Analytics. More specifically, having obtained 120 credits at levels 4 and 5, and a minimum of 60 credits at Level 6. Typically, students will have obtained at least 60 credits at Level 6 by completing four (4) of the compulsory modules, excluding module BAN 4950 Capstone Project in Business Analytics.

BSc. (Ord) in Business Analytics (300 credits)

Compulsory Modules:

Level 4

AF 2007 Financial Accounting – 15 credits

BAN 1023 Introduction to Data Science - 15 credits

CS 2179 Business Information Systems - 15 credits

MA 2027 Linear Algebra - 15 credits

MA 2021 Applied Statistics - 15 credits

FN 2028 Principles of Finance – 15 credits

MG 2063 Principles of Operations Management – 15 credits

MA 2131 Calculus I - 15 credits

Level 5

PH 3005 Business Ethics - 15 credits

MA 3240 Calculus II - 15 credits

CS 3245 Data Management for Business – 15 credits

CS 3153 Business Problem Solving – 15 credits

CS 3155 Exploratory Data Analysis for Business – 15 credits

BAN 3333 Business Process Automation – 15 credits

ITC 3036 Privacy, Policy, Law and Technology - 15 credits

MA 3232 Numerical Methods – 15 credits or MA 3323 Ordinary Differential Equations – 15 credits

Level 6

MG 4057 Project Management – 15 credits



CS 4267 Applied Business Analytics – 15 credits CS 4252 Vizualization and Reporting – 15 credits BAN 4342 Applied Machine Learning – 15 credits

Optional modules: None



4. Distinctive features of the programme structure

- Where applicable, this section provides details on distinctive features such as:
- where in the structure above a professional/placement year fits in and how it may affect progression
- any restrictions regarding the availability of elective modules
- where in the programme structure students must make a choice of pathway/route
- Additional considerations for apprenticeships:
- how the delivery of the academic award fits in with the wider apprenticeship
- > the integration of the 'on the job' and 'off the job' training
- how the academic award fits within the assessment of the apprenticeship

Elective modules are offered at least once a year. Additionally, there is an internship-forcredit optional module as part of the US programme. The rest of the points are not applicable.

5. Support for students and their learning

(For apprenticeships this should include details of how student learning is supported in the workplace)

Academic advising is primarily carried out by the Department Chair in coordination with the Programme Coordinator and the Academic Advising Office. Students also consult Business Analytics faculty for advising on a variety of topics including career options and postgraduate studies during faculty office hours. Faculty/instructors hold one office hour per week per module taught. Faculty/instructors office hours are available through the School of Business and Economics Dean's Office.

The Academic Advising Office aids students in choosing and completing their academic programs. The advising staff members provide academic advice and information to undergraduate students, advising all first-year students, some second-year students, and transfer students; support for academic staff advisors; and resources for all students in need of academic advice. The advising staff members communicate to new students the idea of the Engagement Development Plan (EDP) and the Co-Curricular Transcript.

Academic Societies offer students the opportunity to engage and collaborate with faculty in an academic discipline, attend lectures and seminars and participate in a wide range of activities that provide deeper engagement in a particular subject area. The Governing Body of the Business Analytics Society represents Business Analytics students for academic matters and the organization of extra-curricular events. They communicate with the faculty and administration.

Opportunities for academic, professional and personal development are offered through the College's student academic support services, co-curricular activities, and academic societies. The College has implemented a US approach to PDP recently renamed to EDP (Engagement Development Plan). The Co-Curricular Transcript is designed as a means of recognizing extracurricular learning, development, and contributions to campus and



community life. Official Copies of the Co-Curricular Transcript can be used by students to supplement résumés and academic transcripts when seeking employment and applying to graduate schools. The Co-Curricular Transcript includes the following categories: academic enrichment, scholarly engagement, academic honours, awards, scholarships, fellowships, athletics, college engagement and leadership, community service and volunteerism. It is available to students through the Registrar's Office.

The Registrar offers a presentation on the dual award system and its academic policies during the New Student Orientation day. The New Student Orientation Program introduces incoming students to the campus, the academic system (dual OU/Deree awards), College rules and regulations, and academic and social life. Students receive information on student programs and services such as advising, financial aid, and co-curricular activities.

The Student Academic Support Services (SASS) offers academic assistance to students through individual learning facilitation sessions and/or workshops focusing on particular academic skills areas (for example, research skills, note-taking, exam preparation).

Work-based Learning - Internship Opportunities

The College cooperates with a number of multinational companies (e.g. the Libra Group, Diageo, Coca-Cola HBC, etc.) and offers all students international internship placements, often combined with study abroad opportunities.

There is an internship-for-credit optional module as part of the BAN US programme. Students who decide to choose this module, gain on-the-job experience and training as they learn to apply knowledge gained in the classroom to real life professional situations. The internship-for-credit module is designed to encourage reflective learning, as students evaluate theories and concepts learned in class through the lens of their professional experience in the field. Since the beginning of the BAN programme in fall 2014, thirteen (13) students have selected this option, which was actually their first step to a professional career in Business Analytics.

We consider that the experience students have accumulated from internships in information systems-related areas has significantly contributed to their skills building and eventually in finding a job immediately after graduation.

Disability Status and Provisions

Students are responsible for alerting the Educational Psychologist to a special need, and for providing relevant documentary evidence. The Educational Psychologist suggests actions to be taken to accommodate a student with special needs, having ensured that there has been full consultation with faculty in the department(s) responsible for the assessment of that student. The accommodation is approved by the Committee of Disabilities and Learning Differences. This action must be endorsed by the Chair of the relevant Board of Examiners in the case of the validated award. Information, guidance and support are provided to all disabled students who declare their disabilities. Students with learning difficulties may be eligible for special accommodations, such as extra time for examination completion, and receive support and counselling from the Educational Psychologist on campus. The College announced the establishment of the Counselling Centre in September 2015, with the aim to support, encourage, educate, counsel, and empower students in a college setting as they adjust to the challenges and transition of university life where needed.



The Student Handbook provides detailed information about the Business Analytics programme, all aspects related to pursuing an OU award at Deree, as well as guidance to prospective and current students. Individual programme student handbooks are available on the ACG website.

The Office of Career Services helps students formulate strategies to make the most of their studies before they graduate. Career Services offers students dedicated employability and career development activities, workshops and events.

The Office of Student Affairs is dedicated to promoting student development and enhancing the quality of student life. Through extra-curricular activities the College strives to provide students with opportunities parallel to the classroom experience that are consistent with its educational values. The students are encouraged to explore personal and professional goals by participating in clubs, societies, organizations and athletic teams. Office of Student Affairs co-curricular activities include social, cultural and recreational clubs that allow students to pursue their interests and, at the same time, provide opportunities for leadership.

The Student Success Centre (SSC) is designed as a one-stop service point for students. The primary purpose of SSC is to simplify the interactions between students and the College. Among other services, the SSC issues student IDs; credentials for the college's online services; accepts student requests for various certificates and petitions related to their studies; processes requests for course withdrawals; and guides students to the appropriate offices for matters related to registration, academic advising, validation, transfer credit, and tuition payment. The SSC is open extended hours (M-Th. 8:00-19:00 and Fri. 8:00-18:00) in order to be accessible to students.

6. Criteria for admission

(For apprenticeships this should include details of how the criteria will be used with employers who will be recruiting apprentices.)

The Admissions Process

To qualify for admission to the academic programs of the College, applicants must demonstrate that they possess the appropriate qualifications to enable them to be successful in the programme of their choice. To this end, applicants must meet the following requirements:

The standard minimum entry requirement for the major's programme is the following: 14/20 in the Greek system, an overall average grade of C in the US system, or 24 and above in the International Baccalaureate or the equivalent of any other educational grading system. Applicants whose grades are between 11/20-13.99/20 or its equivalent, may be admitted to the College on a provisional basis.

Students admitted on a provisional basis will be required to fulfil the following conditions in order to be allowed to continue on their selected major after the completion of one academic year after their acceptance to Deree:

 Meet with an assigned advisor at the Academic Advising Office at least twice every month or whenever the advisor thinks it is necessary. The assigned advisor will monitor the student progress very closely and may require that they seek academic help through the Student Academic Support Services.



- The number of modules students will be allowed to register for will be determined by their English language placement (see section "English Language Requirements"). However, in no case will they be allowed to register for a total of more than 2 modules if placed in EAP 1002 or for more than 4 modules if placed in WP 1010. Students with provisional status who are placed in EAP 1000 or EAP 1001 must first complete their English for Academic Purpose modules before taking College level modules along with EAP 1002.
- Students who have successfully completed only the EAP sequence during their first academic year will be able to continue.
- Achieve a minimum cumulative average (CI) of at least 2.0 after one academic year.
- After the completion of one academic year on provisional status, students' performance will be reviewed by the Committee on Academic Standards and Policies (CASP), which will decide on student progression and/or new conditions.
- Students on provisional status are subject to the College probation policy (see section "Academic Probation").

The following is required for all freshmen applicants:

- 1. A completed application form.
- 2. A letter of recommendation from an academic teacher or professor.
- 3. An official secondary school transcript and an official copy of a secondary diploma, both legally certified.
- 4. A certified copy of their identity card for Greek citizens or a valid passport for non-Greek citizens.
- 5. An interview with an admissions counselor.
- 6. Evidence of proficiency in English.

Evidence of Proficiency in English

All applicants must demonstrate proficiency in the English language either by taking the College's English Placement Test (EPT) or by submitting any evidence derived from one of the following tests:

Pearson test of Academic English (PTE Academic): 58 or greater

Michigan State University Certificate of Language Proficiency (MSU-CELP)

Michigan Proficiency Certificate Cambridge Proficiency Certificate

Cambridge Advanced English (CAE) with Grade A only

International Baccalaureate Certificate*
International Baccalaureate Diploma
IELTS: (academic) 6.5 or above

SAT: 450 or above ACT: 18 or above

TOEFL (paper based): 567 or above TOEFL (computer based): 227 or above TOEFL (internet based): 87 or above

GCE higher level English: Grade C or greater Oxford Online Placement Test: 99 or above

* With grade 4 and above in the English higher-level subject or at least an average of 12 in the higher level subjects.



Applicants presenting a TOEFL score should arrange to have the test results sent directly to the

Office of Admissions by the Educational Testing Service (ETS). The College's Institution Code Number is 0925. TOEFL scores are valid for 2 years.

Students may also qualify to take WP 1010 by submitting evidence of fluency based on graduation from an English-speaking secondary school or programme.

The above-listed grades qualify the student for placement directly into WP 1010. Applicants who do not qualify for WP 1010 but otherwise show academic promise may be admitted conditionally and placed in the English for Academic Purposes Program.

7. Language of study
English
8. Information about non-OU standard assessment regulations (including Professional Statutory Recognised Body requirements)
N/A
9. For apprenticeships in England, summary of how the End Point Assessment (EPA) links to the academic award
N/A

10. Methods for evaluating and improving the quality and standards of teaching and learning including the student experience

Programmes use the following direct and indirect methods for evaluating and improving the quality of teaching:

- On line Course Evaluation for each course (through CourseEval). This is submitted anonymously by students in all courses. Following submission of grades, results are sent electronically to the Provost, the Deans, the Department Heads/Programme Coordinators and the course instructor. They are also available to the President and the VP of Human Resources. Results are taken into consideration both in terms of improving teaching but also evaluating faculty.
- Senior Exit Survey: completed by all graduating students.
- Course Leader Reports where feedback from the course evaluations is also considered.
- Feedback from meetings between External Examiners and students.
- Departmental meetings with the student Academic Society.



- Representation of Academic Societies through their presidents in the Programme Committees. Student concerns are discussed and feedback is communicated back to the students by the relevant Society presidents.
- Student advising.
- Students may always express concerns to the Deans, the Provost or the President either individually or through the Student Association.

The College places high value on effective pedagogical practices in the classroom by:

- Providing its faculty with the resources to improve the quality of instruction such as computers, smart classrooms, and electronic and print library resources, and training in new instructional technologies such as Blackboard.
- Supporting workshops, seminars, guest speakers, and retreats on best practices in teaching.
- Supporting faculty in the organization and hosting of international conferences at ACG
- Supporting faculty on visiting teaching fellowships.

Deree-ACG is also a member of the **Global Liberal Arts Alliance** (GLAA), an international, multilateral partnership of American style liberal arts institutions with the goal of supporting excellence in liberal arts education on a transnational basis.

The Great Lakes Colleges Association, based in Ann Arbor, Michigan, coordinates the activities and projects of the Alliance and was instrumental in its formation. There are presently 27 institutions representing 15 nations in the Alliance membership.

GLAA's purpose is to exchange knowledge, expertise and experience among institutions committed to education in the tradition of the liberal arts and sciences.

Deree-ACG's **Teaching and Learning Centre** (TLC) focuses on academic staff development. The goals of the TLC are to promote best practice (both US and UK) in pedagogy by

- Offering programs which engage faculty in continuous improvement of Teaching.
- Supporting faculty in professional development in teaching.
- Promoting the value of teaching inside and outside the University Community.
- Encouraging faculty to explore new teaching methods and technologies.

Throughout the academic year the TLC organizes frequent training sessions on pedagogy and encourages faculty to explore developments in teaching technologies and adopt learner-cantered practices. Through a dedicated Blackboard container full of material related to classroom needs, which is made available to all Deree instructors, TLC facilitates faculty efforts to keep up with best practices in pedagogy.

11	l. Chang	es made	to the	programme	since last	t (re	e)valid	latio	n
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N/A



Appendix 1 - Curriculum maps

The following table indicates which study units assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes at **Level 4**.

													Р	rog	ıran	nme	e oı	utco	ome	s											
Level	Study Module/Unit	A .1 .1	A. 1. 2	A. 1. 3	A. 1. 4	A. 2. 1	A. 2. 2	A. 2. 3	A. 2. 4	B. 1. 1	B. 1. 2	B. 1. 3	B. 1. 4	B. 1. 5	B. 1. 6	B. 2. 1	B. 2. 2	B. 2. 3	B. 2. 4	C. 1. 1	C. 1. 2	C. 1. 3	C. 2. 1	C. 2. 2	C. 2. 3	D. 1. 1	D. 1. 2	D. 1. 3	D. 2. 1	D. 2. 2	D. 2. 3
	AF 2007 Financial Accounting	~																													
	BAN 1023 Introduction to Data Science			~		~			~			~		>	>	>		\	<	~	~						~				
	CS 2179 Business Information Systems				>	~	~	~	~								~	~						~	>			~		>	~
	FN 2028 Principles of Finance												~																		
4	MA 2021 Applied Statistics										~			~									~						~		
	MA 2027 Linear Algebra									~												~				~					
	MA 2131 Calculus I									~												\				~					
	MG 2063 Principles of Operations Management		~													~	~														



The following table indicates which study units assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes at **Level 5**.

														Pr	ogra	mme	e out	com	es												
Level	Study Module/Unit	A.1 .1	A.1 .2	A.1 .3	A.1 .4	A.2 .1	A.2 .2	A.2 .3	A.2 .4	B.1 .1	B.1 .2	B.1 .3	B.1 .4	B.1 .5	B.1 .6	B.2 .1	B.2 .2	B.2 .3	B.2 .4	C.1 .1	C.1 .2	C.1 .3	C.2 .1	C.2 .2	C.2 .3	D.1 .1	D.1 .2	D.1 .3	D.2 .1	D.2 .2	D.2 .3
	MA 3240 Calculus II									~												~				~					
	CS 3155 Exploratory Data Analysis for Business				~						~			~				~					~					~			
	CS 3245 Data Management for Business				~							~						~				~	~					~	~		
	BAN 3333 Business Process Automation			~																*								~			
5	CS 3153 Business Problem Solving											~														~					
	PH 3005 Business Ethics					~	~	~																							
	ITC 3036 Privacy, Policy, Law and Technology					~	~	~																							
	MA 3232 Numerical Methods or									~		~										~				~					
	MA 3323 Ordinary Differential Equations									*												*				~					



The following table indicates which study units assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes at **Level 6**.

														Pro	gra	mme	e ou	tcor	nes												
Level	Study Module/Unit	A. 1.1	A. 1.2	A. 1.3	A. 1.4	A. 2.1	A. 2.2	A. 2.3	A. 2.4	B. 1.1	B. 1.2	B. 1.3	B. 1.4	B. 1.5	B. 1.6	B. 2.1	B. 2.2	B. 2.3	B. 2.4	C. 1.1	C. 1.2	C. 1.3	C. 2.1	C. 2.2	C. 2.3	D. 1.1	D. 1.2	D. 1.3	D. 2.1	D. 2.2	D. 2.3
	CS 4267 Applied Business Analytics			~					~			~											~						~	~	
	CS 4252 Visualization and Reporting				~												~					~	~								
	CS 4249 Business Intelligence					~						~										~						~			
	BAN 4342 Applied Machine Learning										~				~			~	~	>	>										
6	MG 4057 Project Management			~																							~		<		
	BAN 4848 Advanced Business Analytics			>					>			>		>				~	~									~			
	BAN 4950 Capstone Project in Business Analytics								*															~						~	~
	MA 4345 Calculus III or									~												~				~					
	MA 4333 Mathematical Statistics										~				~							~									



Appendix 2 - Liberal Education mission, competencies and learning outcomes

Deree - The American College of Greece

LIBERAL EDUCATION

MISSION

A vital component of the undergraduate experience, the Liberal Education program prepares students to become globally engaged twenty-first century citizens with the intellectual habits, practical skills, and socio-cultural sensibilities needed in a rapidly changing world. Liberal Education helps students develop essential competencies for success across disciplines and in life beyond college by cultivating open mindedness, tolerance, problem-solving ability, intellectual curiosity and creativity. It also promotes thoughtful self-expression, an ethical compass, and responsibility to the local and global communities.

COMPETENCIES AND LEARNING OUTCOMES

1. Communication and Information Literacy

- 1.1 Demonstrate effective verbal (writing, speaking and listening) and nonverbal communication skills.
- 1.2 Retrieve, critically evaluate and synthesize information adhering to legal and ethical practices.
- 1.3 Show knowledge of the stages needed from draft to final text or presentation using proper documentation and citation.
- 1.4 Demonstrate a mastery of the basic skills in information technology.

2. Social Responsibility and Civic Engagement

- 2.1 Discuss issues of identity and inclusion.
- 2.2 Explain different dimensions of sustainability and how it relates to one's discipline.
- 2.3 Discuss ways of responsible civic engagement.
- 2.4 Engage in activities that serve the needs of the local and global community.
- 2.5 Evaluate elements of Greek society that reflect Greek cultural values and the desirability to maintain or change such values so that Greek society can succeed in a new interdependent environment without losing its identity.

3. Cultural and Global Perspectives

- 3.1 Discuss world history or sociocultural traditions from different perspectives.
- 3.2 Describe diverse worldviews, ideas, institutions or artistic expressions manifest in varied contexts globally.
- 3.3 Demonstrate understanding of the workings of Greek, American and European social, political and economic systems and trace the geographical and historical factors that shape these systems.
- 3.4 Discuss issues of cultural diversity.



4. Ethics and Values

- 4.1 Explain the importance of values in our venture to understand the world.
- 4.2 Identify ethical issues in different contexts, especially in one's major course of study.
- 4.3 Discuss ideologies and ethical principles upheld by different cultures and cocultures.
- 4.4 Describe different approaches through which ethical dilemmas may be examined and resolved.

5. Aesthetic Expression

- 5.1 Discuss the main themes, symbols, and means of expression in various art forms.
- 5.2 Demonstrate ability to create or recreate aesthetic works that reflect knowledge of the artistic process and awareness of self, social and stylistic contexts.
- 5.3 Reflect on the outcomes of an artistic work.
- 5.4 Discuss the value of diversity in creative approaches in the visual, verbal and performing arts.

6. Scientific and Quantitative Literacy

- 6.1 Describe major concepts, principles, laws and theories in mathematics and the natural sciences.
- 6.2 Discuss the impact of science and technology on the individual, society, and the physical environment.
- 6.3 Apply scientific and mathematical methods and principles in making informed decisions in various disciplines.
- 6.4 Demonstrate practical and processing skills associated with natural sciences, mathematics and technology.

7. Integration

- 7.1 Synthesize concepts learned in the Liberal Education program with major concepts in one's academic major.
- 7.2 Evaluate theoretical and practical knowledge included in Liberal Education competencies in the context of academic and professional enhancement.

Approved by the Faculty on 27/1/2014.



Appendix 3 – Exit awards

Certificate in Higher Education (CertHE) in Business Analytics Diploma in Higher Education (DipHE) in Business Analytics B.Sc. (Ord) in Business Analytics

1. Certificate in Higher Education (CertHE) in Business Analytics

In accordance with the framework for higher education qualifications, the holder of a Certificate of Higher Education in Business Analytics will have a sound knowledge of the basic concepts of Business Analytics and will have learned how to apply different technologies to solving problems required in business functions. He or she will be able to communicate accurately and will have the qualities needed for employment requiring the exercise of personal responsibility.

Certificates in Higher Education in Business Analytics are awarded to students who have demonstrated:

- i) knowledge of the underlying concepts and principles associated with all Business Analytics functions, and an ability to evaluate and interpret these within internal and external business contexts;
- ii) an ability to retrieve, analyse, interpret, and present qualitative and quantitative data, to develop lines of argument and make sound judgments in accordance with basic theories and concepts of Business Analytics.

Typically, holders of the qualification will be able to:

- a) apply a wide variety of Business Analytics theories and concepts to solving basic business-related problems;
- b) communicate the results of their study/work accurately and reliably, with coherent arguments, orally and in writing;
- c) undertake further training and develop new skills within a structured and managed environment;

and will have:

d) qualities and transferable skills necessary for employment requiring the exercise of personal responsibility.

Specifically, holders of the Certificate in Higher Education in Business Analytics will be able to demonstrate knowledge and understanding of:

- Core economic concepts and principles
- Basic tools in statistics
- The legal environment for business
- Management theories, concepts, principles and practices
- The fundamentals of marketing research and marketing strategy
- Accounting transactions and non-complex financial statements
- Business functional and cross-functional information systems.

In addition, they will have the following cognitive, practical/professional and key/transferable skills:

• Locate, extract, and analyse data from library and other resources including the acknowledgement and referencing of sources



- Interpret, analyse, and solve structured problems, and to a limited extent unstructured problem
- Develop and critically evaluate arguments and evidence including identifying assumptions and detecting false logic
- Analyse and evaluate ethical choices in business
- Recognize and analyse the requirements and practical constraints of different types of information systems
- Use numeric skills, including quantitative financial techniques, in solving complex problems
- Use information technology effectively to retrieve, process, analyse and communicate information with guidance
- Relate the importance of people management within projects in terms of resource allocation, leadership, teamwork, and motivation
- Communicate ideas successfully orally and in writing, and to adapt message content to a particular audience and medium of communication in a professional context
- Develop interpersonal, teamwork and/or leadership skills and work effectively with others in small groups or teams
- Reflect intellectual and function as an independent, self-managed lifelong learner.

2. Diploma in Higher Education (DipHE) in Business Analytics

Upon completion of levels 4 and 5 (240 credits or 16 modules), students will be able to: i) recognize and be familiar with key business functions and the impact of the external environment on business, ii) apply basic statistical techniques to business, iii) demonstrate detailed knowledge of theories, models, tools, and practices of finance and accounting, management, and information systems, iv) apply their detailed knowledge of business functions to evaluating and solving complex, unstructured problems in information systems.

Holders of the Diploma of Higher Education in Business Analytics will be able to demonstrate knowledge and understanding of diverse business functions and environments as well as detailed knowledge and critical understanding of specific fields like economics, law and marketing.

Additionally, holders of the Diploma in Business Analytics will be able to demonstrate detailed knowledge and critical understanding of statistical techniques and tools, management theories, concepts, principles and practices, financial accounting as well as finance theories, concepts, principles and practices and their applications to practical problems, moral theories and ethical issues which have an impact on business decision making, and information systems to support operations and processes with customers, suppliers, partners and employees.

In addition, they will have the following cognitive, practical/professional and key/transferable skills:

- Locate, extract, and analyse data from library and other resources including the acknowledgement and referencing of sources
- Interpret, analyse, and solve structured problems, and to a limited extent unstructured problem, from a generated data set
- Develop and critically evaluate arguments and evidence including identifying assumptions and detecting false logic
- Analyse and evaluate ethical choices in business



- Apply critical thinking to create, evaluate and assess a range of options in solving complex problems
- Recognize and analyse the requirements and practical constraints of different types of information systems
- Apply appropriate theory, practices and tools to address design and implementation issues of information technology related problems
- Exhibit reasoning ability and creativity to address a given problem
- Use numeric skills, including quantitative financial techniques, in solving complex problems
- Use information technology effectively to retrieve, process, analyse and communicate information with guidance
- Relate the importance of people management within projects in terms of resource allocation, leadership, teamwork, and motivation
- Specify, design and construct solutions involving programming to given problems
- Determine the risks, controls and safety measures in the use of computing technologies.
- Communicate ideas successfully orally and in writing, and to adapt message content to a particular audience and medium of communication in a professional context
- Develop interpersonal, teamwork and/or leadership skills and work effectively with others in small groups or teams
- Reflect intellectual and function as an independent, self-managed lifelong learner.

3. B.Sc. (Ord) in Business Analytics

Upon completion of 300 credits (20 modules, including four Level 6 modules), students will be able to: i) recognize and be familiar with key business functions and the impact of the external environment on business, ii) apply basic statistical techniques to business, iii) demonstrate detailed knowledge of theories, models, tools, and practices of finance and accounting, management, and information systems, iv) apply their detailed knowledge of business functions to evaluating and solving complex, unstructured problems in information systems with minimum guidance.

Holders of the ordinary BSc in Business Analytics will be able to demonstrate knowledge and understanding of diverse business functions and environments as well as detailed knowledge and critical understanding of specific fields like economics, law and marketing.

Additionally, holders of the ordinary BSc in Business Analytics will be able to demonstrate detailed knowledge and critical understanding of:

- Statistical techniques and tools
- Logistics and management theories, concepts, principles and practices
- Financial accounting; as well as finance theories, concepts, principles and practices and their applications to practical problems
- Moral theories and ethical issues that have an impact on business decision-making
- Application of tools, technological aspects, and techniques for information systems analysis and design
- Use of information systems to support operations and processes with customers, suppliers, partners and employees
- Selection, design, and application of several interdisciplinary project management techniques to ensure highly effective and efficient project outcomes.



In addition, they will have the following cognitive, practical/professional and key/transferable skills:

- Locate, extract, and analyse data from library and other resources including the acknowledgment and referencing of sources
- Interpret, analyse, and solve structured problems, and to a limited extent unstructured problem
- Develop and critically evaluate arguments and evidence including identifying assumptions and detecting false logic
- Analyse and evaluate ethical choices in business
- Apply critical thinking to create, evaluate and assess a range of options in solving complex problems
- Recognize and analyse the requirements and practical constraints of different types of information systems
- Analyse the extent to which an information system meets the requirements defined for its current use and sustainability
- Apply appropriate theory, practices and tools to address design and implementation issues of information technology-related problems
- Exhibit reasoning ability and creativity to address a given problem
- Use numeric skills, including quantitative financial techniques, in solving complex problems
- Use information technology effectively to retrieve, process, analyse and communicate information with guidance
- Use quantitative tools in analysing and solving financial and managerial problems
- Relate the importance of people management within projects in terms of resource allocation, leadership, teamwork, and motivation
- Specify, design and construct solutions involving programming to given problems
- Determine the risks, controls and safety measures in the use of computing technologies
- Synthesise prior acquired knowledge to analyse and design information systems for business
- Communicate ideas successfully orally and in writing, and to adapt message content to a particular audience and medium of communication in a professional context
- Develop interpersonal, teamwork and/or leadership skills and work effectively with others in small groups or teams.
- Reflect intellectual and function as an independent, self-managed lifelong learner.