Annexe A: New/Revised Course Content in OBTL+ Format

Course Overview

The sections shown on this interface are based on the templates UG OBTL+ or PG OBTL+
If you are revising/duplicating an existing course and do not see the pre-filled contents you expect in the subsequent sections e.g. Course Aims, Intended Learning Outcomes etc. please refer to Data Transformation Status for more information.

Expected Implementation in Academic Year	2024
Semester/Trimester/Others (specify approx. Start/End date)	Semester 2
Course Author * Faculty proposing/revising the course	Damien Joseph
Course Author Email	adjoseph@ntu.edu.sg
Course Title	BUSINESS ANALYTICS CONSULTING
Course Code	BC3412
Academic Units	3
Contact Hours	39
Research Experience Components	Research Defined Course (at least 50% of deliverables involve practical research activities: problem identification, hypothesis forming, data collection/analysis/interpretation, result communication)

Course Requisites (if applicable)

Pre-requisites	AB1202, BC2402, BC2406, Year 3 standing
Co-requisites	BC2407, AB3602
Pre-requisite to	
Mutually exclusive to	
Replacement course to	
Remarks (if any)	

Course Aims

This course develops competencies for a career in business analytics consulting. It is a career option that provides incumbents an opportunity for challenging work, continued self-development, and access to important professional networks. Career opportunities are available in global consulting organizations practicing in a variety of business settings and business disciplines, and in small consulting firms offering niche/boutique services. In addition, many businesses have developed internal consulting departments to provide advisory services within the organization and often in conjunction with consulting services offered by third party firms.

Course's Intended Learning Outcomes (ILOs)

Upon the successful completion of this course, you (student) would be able to:

ILO 1	Articulate viewpoints with civility and with the aim of moving the class to new insights
ILO 2	Apply business domain knowledge to analyze and understand business problems
ILO 3	Apply business analytics techniques to develop insights
ILO 4	Formulate recommendations based on insights to resolve business problems
ILO 5	Develop teamwork and interpersonal skills through consulting best practices

Course Content

1. Consulting and the Consultant 2. The Business Analytics Process 3. Communication of Insights 4. Storytelling with data visualizations 5. Data Governance 6. Business Analytics Hackathon

Reading and References (if applicable)

Reference textbooks: - Block, Peter. Flawless Consulting: A Guide to Getting Your Expertise Used. San Francisco: Jossey-Bass/Pfeiffer, 2011. - Block, Peter. Flawless Consulting, www.flawlessconsulting.com, 2016. - Simon Chesterman. 2014. Data Protection Law in Singapore: Privacy and Sovereignty in an Interconnected World. Academy Publishing Journal articles available through NTU Library's e-journals database: Week 1: -Dominic Barton; David Court. Making Advanced Analytics Work For You. Harvard Business Review, 2012, Vol. 90 Iss. 10, pp. 78-83. - David A. Nadler. Confessions of a Trusted Counsellor. Harvard Business Review, 2005, Vol. 83 Iss. 9, pp. 68-77. Week 2: - Christian Madsbjerg; Mikkel Rasmussen. An Anthropologist Walks into a Bar.... Harvard Business Review, 2014, Vol. 92 Iss. 3, pp. 80-89. - Frank van den Driest; Stan Sthanunathan; Keith Weed. Building an Insights Engine. Harvard Business Review. 2016, Vol. 94 Iss. 9, pp. 64-14. Week 3: - Scott Berinato. Visualizations That Really Work. Harvard Business Review, 2016, Vol. 94 Iss. 6, pp. 92-100. - Robin Hogarth; Emre Soyer. A Picture's Worth a Thousand Numbers. Harvard Business Review. 2013, Vol. 91 Iss 6, p. 26 - Gary A Williams; Robert B Miller. Change the Way You Persuade. Harvard Business Review, 2002, Vol. 80 Iss. 5, pp. 64-73. Week 4: - W Brian Arthur. Where is Technology Taking the Economy? McKinsey Quarterly, Oct. https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/where-is-technology-taking-the-economy - Ellen R. Auster; Trish Ruebottom. Navigating the Politics and Emotions of Change. MIT Sloan Management Review, 2013, Vol. 54 Iss. 4, pp. 31-36. - Jeffrey D. Ford; Laurie W. Ford. Decoding Resistance to Change. Harvard Business Review, 2009, Vol. 87 Iss. 4, pp. 99-103. Week 5: - Brett Danaher; Michael D. Smith; and Rahul Telang. Copyright Enforcement in the Digital Age; Empirical Evidence and Policy Implications. Communication of the ACM, 2017, Vol. 60 Iss. 2, pp. 68-75. - Vijay Khatri; Carol V. Brown. Designing Data Governance. Communication of the ACM, 2010, Vol. 53 Iss. 1, pp. 148-152. Week 13: - Arthur N. Turner. Consulting Is More Than Giving Advice. Harvard Business Review, 1982, Vol. 60 Iss. 5, pp. 120-129. - Stijn Viaene; Annabel Van den Bunder. The Secrets to Managing Business Analytics Projects. MIT Sloan Review, 2011, Vol. 53 No. 1, pp. 65-69.

Planned Schedule

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
1	Consulting and the Consultant:		- Block Ch 1-4, 6 - Barton & Court 2012 Nadler 2005		
2	The Business Analytics Process		- Block Ch 7, 10-13 - Madsbjerg & Rasmussen 2014 - Van den Driest et al 2016		
3	Team Building		- Block Ch 10-13 - Madsbjerg & Rasmussen 2014 Van den Driest et al 2016		
4	Business Analytics Hackathon Briefing		- Hackathon partners - Industry expert(s)		
5	Review of business analytics techniques				
6	Storytelling with data visualization: Communication of Insights		- Berinato 2016 - Hogarth & Soyer 2016 - Williams & Miller 2002		
7	Storytelling with data visualization: Refinement of Insights: A Workshop on Storytelling				
8	Business Analytics Hackathon: Interim Review		- Block Ch 14-17 Hackathon partners		
9	Change Management		- Block 8-9 - Auster & Ruebottom 2013 - Ford & Ford 2009 - Turner 1982 - Viaene & Bunder 2015		

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
10	Data Governance		- Khatri & Brown 2010 - Danaher et al 2017 - Chesterman Ch 1-4, 8 - Data Governance Institute Framework		
11	Clinics				
12	Business Analytics Hackathon: Evaluations of Submissions		Hackathon partners		
13	Business Analytics Hackathon: Finals and Presentations		Hackathon partners		

Learning and Teaching Approach

Approach	How does this approach support you in achieving the learning outcomes?
Seminars	BC3412 adopts a flipped classroom and a cooperative method of learning. As such, the instructors will play a facilitating role where students take a self-directed learning approach to content, and where they express their points of view and analysis in class discussions.
Individual assignment(s)	Readings. A critical skill in consulting is the ability to read materials quickly, and to extract important and relevant information. The goal is to find the important concepts and ideas, and to skim the rest of the article to get the key insights. Case Analyses. Cases facilitate the anchoring of knowledge to a real-world context. Students are expected to read, think and analyse each case before class. The prescribed readings for the week and other external materials form resources that students may draw from in their analysis of a case. Each case analysis requires a formal executive brief that should be no longer than 3 pages, single spaced. This brief should provide a concise description of critical issues, problems, quantitative and qualitative analyses, and conclusions or recommendations. Submit each case analysis via NTULearn by 23:59 hrs on the Thursday before the next class.
Class Contribution	Sessions are more valuable when there is a diversity of opinions based on different interpretations and perspectives. You are expected to make significant contributions during class and case discussions. The assessment of class participation includes: quality of comments, application of readings to discussions, and sharing of key, pertinent information from external readings (e.g. other courses, newspapers and journals).

Approach	How does this approach support you in achieving the learning outcomes?
Business Analytics Hackathon.	You will work closely in teams for the duration of the data hackathon. As in actual consulting teams, your team will be a mix of members with different functional and technical skills. The most effective teams achieve superior performance by first discussing personal backgrounds, expertise and experiences. Such teams go on to develop a common direction, align goals, motivate themselves towards a common direction, and are committed towards achieving superior quality of performance. The data hackathon is a relatively risk-free environment and is the last opportunity to work on improving your teamwork and interpersonal skills. Your team members will evaluate you on your teamwork and interpersonal skills at the completion of the hackathon. The deliverables of the data hackathon, a report, will be assessed on meeting the client's requirements and on the quality of recommendations. As alluded to above, teamwork and interpersonal skills are important for superior performance of the team in this assignment. Teamwork and interpersonal skills will be assessed by a peer evaluation using the Teamwork and Interpersonal skills rubrics (Annex B). This assignment will use the peer evaluation to moderate each individual team member's performance on this assignment. For example, - if a team member receives 10/10 on the peer evaluation, this student receives the full overall marks received by the team; - if a team member receives 7/10 on the peer evaluation, this student receives the 70% overall marks received by the team; - if a team member receives 5/10 on the peer evaluation, this student receives the 50% overall marks received by the team. It is possible that a a team member will receive 0/10 on the peer evaluation. In this case, the instructor will conduct an investigation as to whether that student truly deserves an overall 0 marks for this assignment.

Assessment Structure

Assessment Components (includes both continuous and summative assessment)

No.	Component	ILO	Related PLO or Accreditation	Weightage	Team/Individual	Rubrics	Level of Understanding
1	Continuous Assessment (CA): Class Participation(Class contribution)	1	Oral communication	10	Individual	Holistic	Relational
2	Continuous Assessment (CA): Report/Case study(Case Analyses)	2 to 4	Problem solving and decision making	30	Individual	Analytic	Multistructural
3	Continuous Assessment (CA): Project(Business Analytics Hackathon)	2 to 4	Problem solving and decision making; Oral and written communica tion; Teamwork and interperson al skills	50	Team	Holistic	Extended Abstract
4	Continuous Assessment (CA): Others(Peer Review)	5	Teamwork and Interpersonal Skills	10	Individual	Holistic	Not Applicable

Description of Assessment Components (if applicable)

NA

Formative Feedback

Feedback is central to this course. You will receive written or verbal feedback about your assignments. The written feedback will be consistent with the criteria of the rubric for a given assignment. Verbal feedback will be provided in class during the discussions about performances on those assignments.

NTU Graduate Attributes/Competency Mapping

This course intends to develop the following graduate attributes and competencies (maximum 5 most relevant)

Attributes/Competency	Level
Influence	Basic
Project Management	Basic
Critical Thinking	Intermediate
Embrace Challenge	Intermediate

Course Policy

Policy (Academic Integrity)

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values. As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. On the use of technological tools (such as Generative AI tools), different courses / assignments have different intended learning outcomes. Students should refer to the specific assignment instructions on their use and requirements and/or consult your instructors on how you can use these tools to help your learning. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Policy (General)

You are expected to complete all assigned pre-class readings and activities, attend all seminar classes punctually and take all scheduled assignments by due dates. You are expected to take responsibility to follow up with course notes, assignments, and course related announcements for seminar sessions you have missed. You are expected to participate in all seminar discussions and activities.

Policy (Absenteeism)

Absence from class without a valid reason will affect your overall course grade. Valid reasons includefalling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. If you miss a seminar, you must inform the course instructor via email prior to the start of the class.

Policy (Others, if applicable)

Free-riding. For the team project, members of each team are strongly encouraged to discuss and agree on each member's tasks and responsibilities early, and to amiably resolve any subsequent dispute(s) as a team prior to consulting their course instructor. Do flag out free riding to the instructor and if the problem persists despite corrective intervention by team members and/or instructor, disciplinary repercussions may include grade penalty and/or other consequences correspond to the severity of the misbehaviour. Thus, the overall mark for a team member is subject to downward moderation based on the team's peer evaluation.

Each member should complete an online peer assessment via eUreka within two days after the submission of the final report (see rubric in in hackathon brief). Academic Integrity. Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all

forms of academic dishonesty, including plagiarism, academic fraud, collusion, and cheating. Please refer to NTU Academic Integrity Handbook for further guidance on academic integrity. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Last Updated Date: 24-09-2024 08:11:05

Last Updated By: Damien Joseph (Assoc Prof)