

# **MKTG3528 Marketing Analytics**

#### **GENERAL INFORMATION**

Instructor: Mengzhou Austin, Zhuang

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Office: KKL 706 Phone: 3910-2183

Consultation times: By appointment

Tutor: Ms. Yana Lo

Course website: To be announced

Other important details: A working laptop is required

#### **COURSE DESCRIPTION**

This course is about collecting and analyzing secondary data. The focus of this course is on understanding the popular data structure, analyzing data and making sense of the results. We will focus on understanding data relevant to marketers, the types of data available, different designs or methods of data collection and analysis.

Course participants will learn to summarize, analyze and interpret the widely adopted data structure. This course will emphasize on defining a research question and the analytic techniques per se. Lastly, students will get a sense of the role state-of-the-art marketing research techniques play in the modern organization.

#### **COURSE OBJECTIVES**

- 1. Develop a basic understanding of the techniques used by data analysts
- 2. Understand a variety of statistical methods and develop the ability to analyze, interpret and report results regarding popular marketing research data
- 3. Build skills to communicate the analysis results to managers to make marketing decisions within the organization

## **FACULTY LEARNING GOALS (FLGs)**

- FLG1: Acquisition and internalization of knowledge of the programme discipline
- FLG2: Application and integration of knowledge
- FLG3: Developing basic skills of integrating, analyzing and interpreting popular marketing data
- FLG4: Inculcating professionalism and leadership
- FLG5: Mastering communication skills
- FLG6: Cultivating leadership

	COURSE I	FARNING	<b>OUTCOMES</b>	(CLOs)
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Course Learning Outcomes	Aligned Faculty Learning Goals (FLGs)
CLO1: Understand the popular data structures	FLG 1, 3
CLO2: Integrating and summarizing the marketing research data	FLG 1, 2, 3
CLO3: Apply basic data analysis methods	FLG 1, 2, 3
CLO4: Visualizing and communicating key information and results	FLG 1, 2, 5, 6
CLO5: Demonstrate effective communication skills	FLG 4,5, 6

## **COURSE TEACHING AND LEARNING ACTIVITIES**

Course Teaching and Learning Activities	Expected Study Hours	Study Load (% of study)
T&L1: Interactive Lectures with Discussions/Class Work	36 hours	26%
T&L2: Individual Assignments	20 hours	14%

T&L3: Group Project	48 hours	34%
T&L4: Self Study	36 hours	26%
Total	140 hours	100%

Assessment Methods	Brief Description (Optional)	Weight	Aligned Course Learning Outcomes
A1: Participation	Attendance, participation, and in-class exercises	20%	CLO1, 5
A2: Individual Assignments	5 individual assignments	40%	CLO1, 2, 3, 4
A3: Group Project	Include progress & final reports and presentation	40%	CLO1, 2, 3, 4, 5
	Total	100%	

Coursework / Examination Ratio: % / %

# STANDARDS FOR ASSESSMENT

#### **Course Grade Descriptors**

- The candidate has consistently demonstrated a thorough grasp of the subject evidenced by A+, A, Aoriginal or exceptionally astute analysis and synthesis of the questions with the relevant course materials. Most of the responses are well organized, clear, and with sufficient elaboration. The candidate frequently demonstrated a substantial grasp of the assignment questions B+, B, Band understandings of course materials. Most of the responses are well organized and sufficiently stated, but some parts require more elaboration. C+, C, C-The candidate basically demonstrated a substantial grasp of the assignment questions and understandings of course materials. Some of the responses are not well organized, unclear,
  - or with insufficient elaboration. D+, D The candidate seldomly demonstrated a grasp of the assignment questions and understandings of course materials. Most of the responses are not well organized, unclear,
  - F The candidate demonstrated little evidence of basic familiarity with the assignment questions and relevant course materials. All the responses are not well organized, unclear, or with insufficient elaboration.

Assessment Rubrics for Each Assessment (Please provide us the details in a separate file if the space here is not enough)

Please see attached document

# COURSE CONTENT AND TENTATIVE TEACHING SCHEDULE

or with insufficient elaboration.

- 1. Syllabus & Course Requirement (Week 1)
- 2. Marketing Analytics Overview (Week 1)
- 3. Data Sources & Summarize Data (Week 1)
  4. Forecasting and Basic Regression Method

  Method
- Forecasting and Basic Regression Methods (Week 3&4)
- 5. Data Visualization (Week 5)
- 6. Pricing (Week 6)
- 7. Customer Value & Market Segmentation (Week 7)
- 8. Internet and Social Marketing (Week 8)
- 9. Group Meeting about Final Project (Week 9)
- 10. Online Advertising (Week 10)
- 11. Text Analysis (Week 11)
- 12. Group Project Presentation (Week 12)

## REQUIRED/RECOMMENDED READINGS & ONLINE MATERIALS (e.g. journals, textbooks, website

addresses etc.)
(Recommended) Wayne L. Winston: Marketing Analytics: Data-Driven Techniques with Microsoft Excel 1st Edition, ISBN= 111837343X
MEANS/PROCESSES FOR STUDENT FEEDBACK ON COURSE
conducting mid-term survey in additional to SETL around the end of the semester
☐ Online response via Moodle site
Others: (please specify)
COURSE POLICY (e.g. plagiarism, academic honesty, attendance, etc.)
HKU Regulations on Academic Dishonesty:  We are serious in students' ethical conduct. The University Regulations on academic dishonesty will be strictly enforced.  • We do not tolerate students engaging in academic dishonesty which includes, but is not necessarily limited to, plagiarism, paraphrasing of someone else's ideas, unauthorized collaboration on out-of-class projects, cheating on in-class exams, and unauthorized advance access to an exam
Students are expected to be aware of what plagiarism is and how to avoid it. Please refer to the HKU policies on

 Students are expected to be aware of what plagiarism is and how to avoid it. Please refer to the HKU policies on plagiarism.

 Students should also be familiar with the HKU regulations and policies, particularly on attendance, absence, examination, and copyright. Please refer to the HKU Undergraduate Student Handbook and HKU Examination Unit webpage.

**Special Accommodations:** If you have any condition, such as a physical or learning disability, which will require academic accommodations, please notify me within the first week of the class, and I will strive to accommodate your needs.

**Deadlines:** All deadlines in the course are to be strictly adhered to. If you must turn work in late, I will deduct 10% for late submission penalty.

**Technology:** A working laptop is required for class participation and exercises. Other devices that generate sound must be turned OFF during class. Set phones to vibrate mode if you must use the phone in *extreme conditions* (that are notified to me before class).

**ADDITIONAL COURSE INFORMATION** (e.g. e-learning platforms & materials, penalty for late assignments, etc.)

## **Moodle Course Web Site:**

Students are expected to access the Moodle course frequently for learning supports and new announcements.

#### **Turnitin Check:**

• Students should avoid plagiarism and have proper citations for their work. Students' written assignments and reports will be subjected to Turnitin for originality check.

# MKTG3528 - Marketing Analytics

# **Grading Rubrics**

# Participation (20%)

- 1. Students who do not attend class regularly cannot participate effectively and can easily lose one or more letter grades. Points will not be deducted for missing two classes. However, for additional classes missed without proper documentation, points will be deducted.
- 2. It is expected that all assigned materials have been read prior to class, and all students are expected to contribute to the class discussion. If necessary, students may be called on to answer questions, give examples, and explain items covered in the textbook, cases, and other assignments. I expect all students to participate equally, not on a daily basis but over the course of the semester. In addition, any type of behavior that disrupts the class will result in negative class participation. Your participation grade will take account not only of the quantity but also the quality of your comments.

Performance Level	Assessment Rubrics for Class Participation
A+, A, A-	<ul> <li>Consistently demonstrate a thorough grasp of the subject as evidenced by achieving outstanding performance in understanding of marketing principles and concepts, critical analysis and synthesis, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.</li> <li>Actively participate in and always submit the in-class exercises on time.</li> </ul>
B+, B, B-	■ Frequently demonstrate a substantial grasp of the subject as evidenced by achieving a proficient performance in understanding of marketing principles and concepts, critical analysis, and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.  Actively participate in and usually submit the in-class exercises on time.
C+, C, C-	<ul> <li>Occasionally demonstrate a general grasp of the subject as evidenced by achieving a moderate performance in understanding of marketing principles and concepts, analysis and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills.</li> <li>Actively participate in and sometimes submit the in-class exercises on time</li> </ul>
D+, D	<ul> <li>Demonstrate a partial grasp of the subject as evidenced by achieving an adequate performance in understanding of marketing principles and concepts, analysis and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills. Actively participate in and rarely submit the in-class exercises on time</li> </ul>
F	<ul> <li>Demonstrate a poor grasp of the subject as evidenced by achieving a poor performance in understanding of marketing principles and concepts, analysis and evaluation, application of knowledge, formulation of marketing solutions, written and verbal communication and teamwork skills. Actively participate in and never submit the in-class exercises on time</li> </ul>

# **Individual Assignments (30%)**

There are 3 individual assignments (each account for 5% of total scores) that will be administered

throughout the semester. The individual assignments are designed to evaluate the students' understanding of a few knowledge points, methods and skills of data process and analysis. For each individual assignment, students are required to submit a report answering the assignment question with any supporting documents (e.g., screenshots, spreadsheet, etc.).

Performance Level	Assessment Rubrics for Individual Assignment
A+, A, A-	Problem Identification (30%)
	All or almost all important marketing problems, key managerial decisions, and/or
	critical issues are accurately identified and clearly addressed.
	■ The analysis is insightful, critical, thorough, systematic, consistent, with sufficient
	supports of relevant and helpful facts/data, and effective application of appropriate
	concepts /techniques/examples which are nicely integrated to the analysis
	Data Analysis (60%)
	The dataset is well summarized with sufficient statistics and visualizations.
	Data analysis are well thought-out and well-articulated with logical flow, consistent,
	feasible, and highly innovative.
	The analyzing code and notes are well-written
	Effectiveness of Writing (10%)
	■ The report is well organized with clear coherence and smooth progression of ideas,
	appropriate length and tone, and free of most writing errors.
B+, B, B-	Problem Identification (30%)
	Most important marketing problems, key managerial decisions, and/or critical
	issues are accurately identified and clearly addressed.
	The analysis is critical, thorough, systematic, and consistent with supports of
	relevant and helpful facts/data and application of appropriate concepts
	/techniques/examples.
	Data Analysis (60%)
	The dataset is generally well summarized with sufficient statistics and
	visualizations.
	<ul> <li>Data analysis are generally well thought-out and well-articulated with logical flow,</li> </ul>
	consistent, feasible, and highly innovative.
	The analyzing code and notes are generally well-written and could be marginally
	improved
	Effectiveness of Writing (10%)
	■ The report is well organized with coherence and progression of ideas, appropriate
	length and tone, and generally free of most writing errors.
C+, C, C-	Problem Identification (30%)
	Some important marketing problems, key managerial decisions, and/or critical
	issues are accurately identified and clearly addressed.
	■ The analysis is systematic, with insufficient elaboration, some inconsistency,
	supported by relevant facts/data but not directly helpful to the analysis, and
	application of some appropriate concepts /techniques/examples.
	I .

# Data Analysis (60%) The dataset is generally well summarized with sufficient statistics and visualizations with a few flaws. • Data analysis are thought-out and well-articulated with logical flow, consistent, feasible, and innovative with a few flaws. • The analyzing code and notes are generally well written and some places could be improved majorly Effectiveness of Writing (10%) • The report is generally organized with some coherence and progression of ideas, appropriate length and tone, and a few noticeable writing errors. D+, D Problem Identification (30%) Less important marketing problems/managerial decisions and/or basic issues are identified and addressed. • The analysis lacked of a clear focus, insufficient consistency, largely descriptive, with limited support of helpful and relevant facts/data and application of appropriate concepts/techniques/examples. Data Analysis (60%) • The dataset is generally not well summarized with sufficient statistics and visualizations with a few merits. Data analysis are not thought-out and well-articulated with logical flow, consistent, feasible, and innovative with a few merits. The analyzing code and notes are written and some major improvements are needed Effectiveness of Writing (10%) • The report is adequately organized with some lapses in coherence or progression of ideas, inappropriate length and/or tone, and/or some noticeable writing errors. F Problem Identification and Analysis (30%) Marketing problems, managerial decisions, and/or issues identified are superficial, inadequate, irrelevant, or absent. The analysis is missing or descriptive with no or little supports of relevant facts/data and application of appropriate concepts/techniques/examples. Data Analysis (60%) • The dataset is not well summarized with sufficient statistics and visualizations without merit. • Data analysis are not thought-out and well-articulated with logical flow, consistent, feasible, and innovative without merit. The analyzing code and notes are not written and major improvements are needed Effectiveness of Writing (10%) • The report is poorly organized with serious problems in coherence or progression of ideas, inappropriate length and tone, and writing errors so serious that meaning is obscured.

# **Group Project (50%)**

The final project accounts for 50% of your total grade. It has both a written and oral component and you will work on it throughout the semester with your group. A handout discussing the project in detail and a real-world marketing research dataset will be distributed during the semester. The final report and final presentation each worth 10% of the total grade respectively. In addition to the final report, you will produce two intermediate reports. These will be used to check your progress and provide feedback. Each of these is worth 7.5% of your total grade. The guidelines for these reports will be posted before the due date.

1	osted before the due date.		
Performance Level	Assessment Rubrics for Group Project		
Performance Level	Assessment Rubrics for Group Marketing Plan Presentation (P) and Report (R)      (P) 50(2)		
A+, A, A-	Executive Summary (R: 5%)		
	■ The executive summary is thorough, precise, articulated with clarity and fluency,		
	and consistent with the analyses and recommendations followed.		
	Problem Identification and Data Summary (P: 30%; R: 20%)		
	■ The research questions are clearly and accurately identified.		
	■ The analysis of the dataset's uniqueness and the identification of the key variables		
	are insightful, critical, thorough, systematic, consistent, with sufficient supports of		
	relevant and helpful fact/data.		
	■ The dataset is well summarized with sufficient statistics and visualizations.		
	Analyzing Method and Results (P: 40%; R: 60%)		
	<ul> <li>Appropriate analyzing method is selected with sufficient argument.</li> </ul>		
	Data analysis are well thought-out and well-articulated with logical flow, consistent,		
	feasible, and highly innovative.		
	The analyzing code and notes are well-written		
	Effectiveness of Presentation (P: 30%)		
	■ The presentation is well organized with clear coherence, smooth progression of		
	ideas, articulated and polished with clarity and fluency, effective use of presentation		
	aids, and appropriate length, pace, and tone.		
	■ The presentation group skillfully engages the audience and demonstrates		
	consistently high level of creativity, confidence, enthusiasm, and capability of		
	handling Q&A session.		
	Effectiveness of Writing (R: 15%)		
	■ The report is skillful at arousing and maintaining interests, well organized with clear		
	coherence and smooth progression of ideas, very effective introduction and		
	conclusion, articulated with clarity and fluency, appropriate length and tone, free of		
	most writing errors, and proper and consistent referencing and citations without		
	errors.		
B+, B, B-	Executive Summary (R: 5%)		
	■ The executive summary is generally thorough, precise, clear, fluent, and consistent		
	with the analyses and recommendations followed.		
	Problem Identification and Data Summary (P: 30%; R: 20%)		
	■ The research questions are generally clearly and accurately identified.		

- The analysis of the dataset's uniqueness and the identification of the key variables are generally insightful, critical, thorough, systematic, consistent, with sufficient supports of relevant and helpful fact/data.
- The dataset is generally well summarized with sufficient statistics and visualizations.

#### Analyzing Method and Results (P: 40%; R: 60%)

- Appropriate analyzing method is selected with sufficient argument regardless a few missing parts.
- Data analysis are generally well thought-out and well-articulated with logical flow, consistent, feasible, and highly innovative.
- The analyzing code and notes are generally well-written

# Effectiveness of Presentation (P: 30%)

- The presentation is well organized with coherence, generally effective use of presentation aids, generally clear and fluent, and appropriate length, pace, and tone.
- The presentation group is generally able to engage audience and demonstrated creativity, confidence, enthusiasm, and capability of handling Q&A session.

## Effectiveness of Writing (R: 15%)

• The report is generally able to arouse and maintain interests, well organized with coherence and progression of ideas, good introduction and conclusion, generally clear and fluent, appropriate length and tone, generally free of most writing errors, and consistent referencing and citations with only a few minor mistakes.

# C+, C, C-

## Executive Summary (R: 5%)

■ The executive summary is moderately thorough, precise, clear, fluent, and consistent with the analyses and recommendations followed.

# Problem Identification and Data Summary (P: 30%; R: 20%)

- The research questions are moderately clearly and accurately identified.
- The analysis of the dataset's uniqueness and the identification of the key variables are moderately insightful, critical, thorough, systematic, consistent, with sufficient supports of relevant and helpful fact/data.
- The dataset is generally well summarized with sufficient statistics and visualizations with a few flaws.

#### Analyzing Method and Results (P: 40%; R: 60%)

- Appropriate analyzing method is selected without sufficient argument.
- Data analysis are thought-out and well-articulated with logical flow, consistent, feasible, and innovative with a few flaws.
- The analyzing code and notes are generally well written and some places could be improved majorly

#### Effectiveness of Presentation (P: 30%)

• The presentation is organized with some coherence, moderately clear and fluent, moderately effective use of presentation aids, and some inappropriate length, pace, or tone. ■ The presentation group shows attempts to engage audience and moderate creativity, confidence, enthusiasm, and/or capability of handling Q&A session.

# Effectiveness of Writing (R: 15%)

• The report shows attempts to arouse and maintain interests and is organized with some coherence and progression of ideas, moderately clear introduction and conclusion, moderately clear and fluent, some inappropriate length or tone, a few noticeable writing errors, and some inconsistent referencing and citations with a few noticeable mistakes.

# D+, D

## Executive Summary (R: 5%)

• The executive summary is adequately thorough, precise, clear, fluent, and consistent with the analyses and recommendations followed.

# Problem Identification and Data Summary (P: 30%; R: 20%)

- The research questions are not clearly and accurately identified.
- The analysis of the dataset's uniqueness and the identification of the key variables are not insightful, critical, thorough, systematic, consistent, with sufficient supports of relevant and helpful fact/data.
- The dataset is not well summarized with sufficient statistics and visualizations with a few merits

#### Analyzing Method and Results (P: 40%; R: 60%)

- Inappropriate analyzing method is selected without sufficient argument.
- Data analysis are not thought-out and well-articulated with logical flow, consistent, feasible, and innovative with a few merits.
- The analyzing code and notes are written and some major improvements are needed

# Effectiveness of Presentation (P: 30%)

- The presentation is adequately organized with some lapses in coherence or progression of ideas, adequately clear and fluent, adequately effective use of presentation aids, and inappropriate length, pace, and/or tone.
- The presentation group shows adequate effort to engage audience, creativity, confidence, enthusiasm, and/or capability of handling Q&A session.

## Effectiveness of Writing (R: 15%)

• The report shows adequate effort to arouse and maintain interests and is adequately organized with some lapses in coherence or progression of ideas, introduction and conclusion with some inconsistency, adequately clear and fluent, inappropriate length and/or tone, some noticeable writing errors, and/or inconsistent referencing and citations with some noticeable mistakes.