



Georgetown University, MPS PR/CC | SPRING 2017

MPMC 806-02: DIGITAL ANALYTICS

Class Meets: Wednesday, 8:00 pm - 10:30 pm

Class Location: 640 Mass Ave, Washington, DC 20001, Room: C219

Professor: Nico Durand

COURSE DESCRIPTION

This course will provide students with a solid foundation and working knowledge of digital analytics strategies and tactics. Students will learn how to gather data, about leading digital analytics tools, how to turn data into insights, and how to present and communicate actionable recommendations to clients and executives. We will review digital analytics for websites, apps, social media, various digital marketing channels, and A/B testing. Students will also learn how to turn data into insights and actions through data visualization.

We will review key digital analytics concepts and be exposed to a wide variety of platforms and tools throughout the semester.

LEARNING OBJECTIVES

By the end of this course, students will be able to:

- Understand digital analytics metrics and KPIs (key performance indicators)
- Have a working knowledge of leading digital analytics tools, such as Google Analytics, SimilarWeb, and Facebook Insights
- Analyze data from an analytics tool and from a spreadsheet, and provide data-driven insights and recommendations. We will learn about pivot tables and VLookups in Excel.
- Present data in a meaningful way through data visualizations with clients, stakeholders, and executives as the intended audiences

PHILOSOPHY

This class will be practical and interactive. While we will lecture about the fundamentals and overall strategy of digital measurement, a majority of class time will be devoted to honing real-world skills through presentations and operating digital analytics and advertising platforms. You are encouraged to bring your real-world experience and perspectives in digital analytics into the classroom.

COURSE POLICIES

- **Technology:**
 - Bring a laptop to class to participate in hands-on training on analytics tools. If you are not able to bring a laptop, please team up with a classmate when reviewing the tools in class. Please refrain from using your laptop for non-class-related work, such as emailing or surfing the web.

- Your computer should be connected to the Wi-Fi and have a browser and Excel. Alternatives to Excel (google spreadsheets, OpenOffice, etc) are acceptable if you have a working knowledge of them since instruction will be with Excel.
- Finally, a Google account is necessary to access Google Analytics.
- Please silence your mobile phones and computers and use them only for class-related tasks.
- You are responsible for classroom information and instructions, whether you are present in class or not. If you miss a class, it is your responsibility to obtain class notes.
- I encourage you to ask questions during class. Chances are if you're wondering about something, at least one of your colleagues will be also. Always feel empowered to raise your hand and voice your question. Use each question as an opportunity to apply what we are learning about critical thinking and presentation skills.
- In order to promote a collaborative learning environment, we will use Canvas to communicate with each other throughout the course. This will be a great way to share information, ask questions, and participate in group discussions. I will only reply to individual emails on confidential topics (e.g. your grades, attendance or your paper). Office Hours can be arranged by appointment.

REQUIRED READINGS

Most readings will be relevant articles, blogs, or case studies and will be provided one week in advance via Canvas during the semester.

Library resources:

- <http://guides.library.georgetown.edu/researchcourseguides>
- <http://guides.library.georgetown.edu/prcc>

ABOUT THIS SYLLABUS

- Many thanks to Mia Vallo and Michael Lukich for their support in the preparation of this class, which is heavily inspired from their work.
- Parts in gray are taken directly from the Georgetown template.

ASSIGNMENTS

You are expected to submit work on time and of high quality. Please refer to the course schedule and plan your timetable for completing assignments in advance. I encourage you to actively ask questions prior to submitting any assignment. As long as you submit your assignments for review (**with specific questions**) at least three business days before the assignment is due, I would be happy to review your specific question and discuss it with you. Feedback on all final assignments will be provided no more than 2 weeks after the assignment was turned in (**but hopefully on the next week**). All grading criteria, including page length and essential content, will be distributed in advance and discussed in class.

Submissions

All assignments will be posted on Canvas under the "Assignments" folder. Students are to upload completed assignments to Canvas by the due date and time. No late assignments will be accepted.

The PRCC program uses [American Psychological Association \(APA\) style](#) for references and citations, so please include a statement mentioning this. Please refer to <http://www.library.georgetown.edu/citations> for guidance.

No incomplete grades will be offered, except in the most exceptional circumstances.

All presentations must be emailed the day before the presentation to the instructor in Powerpoint or Google Slides format. Please also submit a hard copy before class. Papers must be uploaded and submitted in hard copy at the latest at class start time.

Class Participation

Discussions are highly encouraged so we can learn from each other and deepen our understanding of digital analytics. You are expected to bring your relevant experience from your fields to the class discussions. Your participation will be reflected in your final grade.

INDIVIDUAL ASSIGNMENTS

Digital Analytics Quizzes

Short questionnaires will be assigned to review key concepts discussed in class.

Digital Analytics Written Diagnosis

Sample data sets will be provided in each assignment, where students will write an executive summary (1 to 2 pages) on findings and recommendations based on the data. Problem statements in the assignments will vary based on class topics, such as web analytics, social media analytics, and digital marketing analytics.

The assignment will typically ask for findings or insights based on the data provided and recommendations based on the findings. External research to provide additional insights is optional, but including relevant external findings will be counted towards the diagnosis grade.

Analyst Presentations and Client Review

We will role play analysts and stakeholders or clients in class, where a student plays the analyst role and the rest of students play the clients. The analyst is to present his/her insights and recommendations to the clients. The clients are to observe the presentation and engage in a discussion of the insights and recommendations.

There will be one to four students presenting in the beginning of the class. Each presentation should last between 3 and 5 minutes, followed by up to 5 minutes of Q&A.

All students are expected to be prepared prior to class for the discussions; clients need to read the materials and understand the business problem, and analysts need to understand the business problem, analyze the data set, and prepare the presentations.

Analysts will need to provide all material relevant to the clients four days before the presentation, a soft copy the day before class time and a hard copy of their presentation prior to class time to the instructor. PowerPoint and Google Slides are accepted.

Clients are expected to engage with analysts by asking questions about the presentations, commenting on how they may approach the problem differently, and/or providing additional recommendations based on the data. Client review is counted towards class participation.

The presentation topic will either be the Digital Analytics Diagnosis topic due that same day, based on a case study reviewed in class, based on a reading assignment or a relevant real-world case for which you have access to data. Presentation content should include insights and recommendations to the clients based on the problem statement or case study provided.

TEAM PROJECTS

Mid-Term Group Presentations: Competitive Analysis

Students will form groups consisting of 4 or 5 students, and present a competitive analysis of 2 to 4 organizations on their digital presence. Each team can select the focus of the digital presence to analyze. For example, teams may choose to analyze the companies' overall digital marketing strategies, analyze the companies' paid media strategies, or present an in-depth analysis of the companies' social media presence, all based on the competitive research.

The team can act either as one of the companies that is analyzed in this assignment or as a competitor evaluating the 2 to 4 companies. For example, if the team has selected to conduct a competitive analysis on New Balance, Reebok, and Under Armour, the team can act either as Nike (a competitor) or as New Balance, Reebok, or Under Armour.

Each team is to complete a group presentation and a group written summary. Each presentation is to last 10 minutes, followed by up to 10 minutes of Q&A. All team members must present. The written summary should be between 3 and 5 pages long. The presentation and written summary must include a problem statement or objective of your competitive analysis, top findings based on the competitive research, and recommendations based on those findings.

Students are to form a team and select the organizations to analyze by week 5. A review of the draft presentation and group progress will be conducted during Class 7 during class time.

Final Group Presentations: Digital Business Case Study

Bringing everything together that we've discussed in class, the same groups as for the mid-term assignment are to analyze the digital presence of one website or company. As this is a digital analytics class, your analysis should be data driven. You will then analyze and present the data in a meaningful and actionable way. You should include recommendations and have the data to back up these recommendations.

To conduct this assignment, you must obtain access to a website's analytics (e.g. Google Analytics) account, and if possible to their social media and email newsletter data. You may choose readily available sources, such as a group member's blog or company website. You may also choose to reach out to a local non-profit or small business and offer your services pro-bono (they might want the free advice!).

Students should choose their final website analysis and submit to instructor for approval by Class 10. If you have difficulty coming up with a website, you should see the instructor by Class 8. Students will have class time during Class 14 to review their draft presentations with the instructor if they wish. This review is directional only and will not count towards the total grade.

Presentations will last between 10 and 15 minutes, followed by up to 10 minutes of Q&A. All team members must present. In addition to the presentation, each group is to upload a written summary (between 4 and 10 pages) of the case study to Canvas prior to presentation. In the summary, describe the company briefly, the problem or opportunity, your methodology in collecting the data, and how you utilize data available to arrive to your recommendations.

GRADING AND ATTENDANCE

Graduate course grades include A, A-, B+, B, B-, C, and F. There are no grades of C+, C-, or D.

GRADING METRICS

Students will have the opportunity to earn a **total of 400 points** this semester. Please reference the below grading scale and assignments.

	#	points	total	% of total
Digital Analytics Diagnosis Papers	3	30	90	23%
Analyst Presentation	1	65	65	16%
Mid-Term Group Presentation and Paper	1	60	60	15%
Final Group Presentation and Paper	1	90	90	23%
Class Participation	13	5	65	16%
Quizzes	3	10	30	8%
TOTAL			400	100%

GRADING STRUCTURE

Presentations (60% of grade if combined with a paper)

- 20% PowerPoint slide quality & data visualizations
- 20% Presentation quality & use of time
- 20% Data acquisition & preparation
- 40% Analysis quality

Papers (40% of grade if combined with a presentation)

- 20% General presentation, grammar, graphs and visualizations
- 20% Clarity of text and recommendations
- 20% Data acquisition & preparation
- 40% Analysis quality

GRADING SCALE

A	400.0 - 372.0	B+	348.0 - 359.9	C	280.0 - 319.9
A-	360.0 - 371.9	B	332.0 - 347.9	F	0 - 279.9
		B-	320.0 - 331.9		

Rubrics will be provided on Canvas for the analyst presentation, mid-term presentation, and final presentation assignments.

The instructor will provide a warning by mid-semester to any student who appears to be on track for a poor final grade. **All grades are final.**

ATTENDANCE

In-class discussion and practice are essential to mastering the content of this course. Students are expected to attend every class and arrive on time. If you are detained from attending a class or arriving before it begins, you are responsible for notifying me via email prior to the start of class. **I much prefer that you attend class late than miss a class.** Missing more than two classes will result in a final grade reduction of one level (for example, an A will be converted to an A-). Absences from classes, beyond the initial two, will result in further reduction of the final grade. If you are absent for more than four classes, you will be in danger of failing this course.

UNIVERSITY RESOURCES

SUPPORT RESOURCES

Georgetown offers a variety of support systems for students that can be accessed on main campus or at the downtown location:

- [MPS Writing Resource Program](#), 202-687-4246
- [Academic Resource Center](#), 202-687-8354 | arc@georgetown.edu
- [Counseling and Psychiatric Services](#), 202-687-6985
- Institutional Diversity, Equity & Affirmative Action ([IDEAA](#)), (202) 687-4798

STUDENTS WITH DISABILITIES POLICY

Students with documented disabilities have the right to specific accommodations that do not fundamentally alter the nature of the course. Students with disabilities should contact the [Academic Resource Center](#) (202-687-8354; arc@georgetown.edu) before the start of classes to allow time to review the documentation and make recommendations for appropriate accommodations. If accommodations are recommended, you will be given a letter from ARC to share with your professors. You are personally responsible for completing this process officially and in a timely manner. Neither accommodations nor exceptions to policies can be permitted to students who have not completed this process in advance.

GEORGETOWN HONOR SYSTEM

All students are expected to maintain the highest standards of academic and personal integrity in pursuit of their education at Georgetown. Academic dishonesty in any form is a serious offense, and students found in violation are subject to academic penalties that include, but are not limited to, failure of the course, termination from the program, and revocation of degrees already conferred. All students are held to the Honor Code. The Honor Code pledge follows:

In the pursuit of the high ideals and rigorous standards of academic life, I commit myself to respect and uphold the Georgetown University Honor System: To be honest in any academic endeavor, and to conduct myself honorably, as a responsible member of the Georgetown community, as we live and work together.

PLAGIARISM

Stealing someone else's work is a terminal offense in the workplace, and it will wreck your career in academia, too. Students are expected to work with integrity and honesty in all their assignments. The Georgetown University Honor System defines plagiarism as "the act of passing off as one's own the ideas or writings of another." More guidance is available through the [Gervase Programs](#). If you have any doubts about plagiarism, paraphrasing and the need to credit, check out <http://www.plagiarism.org>.

COURSE SCHEDULE

The syllabus may change to accommodate discussion of emerging topics or students' interest. Also, the schedules of guest speakers may require some shifting of the agenda. Short quizzes will be introduced and will be announced. The instructor will make every effort to provide as much advance notice as possible for any alterations.

CLASS FORMAT

Most classes will follow the following format:

- Review of the current relevant news. This can include new tools, projects or findings from the students' work.
- Review assignments just graded (most assignments will be given back one week after being due).
- One to four students present, each followed by a 5-minute discussion, then a break.
- Instruction time and/or guest speaker, then break.
- Q&A, administrative issues, review assignments due and hands-on work

AGENDA	READINGS & ASSIGNMENTS DUE
1. Jan. 18 – Class Overview & Introduction to Digital Analytics	
<ul style="list-style-type: none"> • Introductions • Review Syllabus • Digital Analytics: Definition and Introduction • Tying Communications Goals to Business Objectives • Selection of Individual Presentations • Preliminary Survey to Determine Baseline Knowledge and students' Objectives 	<ul style="list-style-type: none"> • Web Analytics Demystified (kaushik.net) • The Importance of Digital Analytics (Google Analytics Academy video, 6 minutes at 1.5x speed)
2. Jan. 25 – Choosing KPIs and Data Visualizations	
<ul style="list-style-type: none"> • Survey Results • Metrics vs. KPIs • Useless vs. Useful Metrics • Metric Use Case • Data Visualization Overview & Tips • Visualization Types 	<p>Due: Assignment #1 – Describe which metrics you have access to in your job (make one up if necessary), and which KPIs matter. Bonus points for showing numbers & graphs.</p> <ul style="list-style-type: none"> • Digital Marketing & Measurement Model (kaushik.net) • Kill Useless Web Metrics: Apply The “Three Layers of So What” Test (kaushik.net) • 10 Best or Worst Ways to Visualize Web Analytics Data (online-behavior.com) • How to Present Data in PowerPoint (Matt Hunter)
3. Feb. 1st – Analyzing Data Sets in Excel	
<ul style="list-style-type: none"> • Typical Client Questions • Creating Reusable Views in Excel and Google Spreadsheets • Analysis of Data Sets • Use Cases & Example Analyses 	<ul style="list-style-type: none"> • Core Analysis Techniques (Google Analytics Academy video, 6 minutes at 1.5x) • Data Analysis in Excel (excel-easy.com – please read subsections 1-6!) <p>This class will be very Excel focused – you can also take advantage of free Excel training by Lynda</p>
4. Feb. 8 – Brand Measurement & Competitive Analysis	

<ul style="list-style-type: none"> Competitive analysis: overview of competitive analysis, understanding key metrics, and review sample reports How to find information on your competitors Brand Measurement: Methods & Tools such as SimilarWeb 	<ul style="list-style-type: none"> The Definitive Guide To (8) Competitive Intelligence Data Sources! (kaushik.net) Website Competitive Analysis Tools: 10 Ways to Check the Competition (orbitmedia.com blog) Brand Measurement: Analytics & Metrics for Branding Campaigns (kaushik.net) How to Use a Competitor Dashboard to Destroy Your Competition (Cyfe blog)
<h2>5. Feb. 15 – Web Traffic & Mobile Apps</h2>	
<ul style="list-style-type: none"> Website Metrics, Available Data & Analysis Website analytics use cases: audience and behavior analysis, website revamp Tool review: <ul style="list-style-type: none"> Google Analytics & Crazy Egg App Annie and native platforms 	<p>Due: Team & Mid-Term Industry Selections</p> <ul style="list-style-type: none"> 7 Key Metrics to Track the Success of Your Website (torquemag.io) Key Metrics and Dimensions Defined (Google Analytics Academy video) How Does Google Analytics Collect Information (Lunametrics blog)
<h2>6. Feb. 22 – Social Media & Search</h2>	
<ul style="list-style-type: none"> Social Metrics, Available Data & Analysis (Facebook, Twitter, LinkedIn & YouTube) Search Metrics, Available Data & Analysis Mobile Metrics & Platforms Tool Review: Google AdWords, SEMRush, and Google Webmaster Tools 	<p>Due: Assignment #2 – Analyzing complex web metrics in Excel</p> <ul style="list-style-type: none"> Best Social Media Metrics: Conversation, Amplification, Applause, Economic Value (kaushik.net) Why Social Media Advertising Is Set To Explode In The Next 3 Years (marketingland.com) Web Analytics vs Mobile Analytics: What's the Difference? (analyticshero.com) What Is SEM & Paid Search Marketing? (searchengineland.com)
<h2>7. Mar. 1st – Email & Display Marketing</h2>	
<ul style="list-style-type: none"> Metrics, Available Data & Analysis for: <ul style="list-style-type: none"> Email Display Advertising Discuss Mid-Term Presentations 	<p>Due: Draft Mid-Term Presentations</p> <ul style="list-style-type: none"> Back to Basics: Email Marketing Metrics (clickz.com) Email Marketing: Campaign Analysis, Metrics, Best Practices (kaushik.net) Mapping the Display Landscape (netmining.com)

8. Mar. 8 – Spring Break - No Class	
9. Mar. 15 – Mid-term presentations	
<ul style="list-style-type: none"> • Mid-term group presentations • Mid-course survey 	Due: Mid-Term Group Paper and Presentation
10.	
11. Mar. 22 – A/B & Multivariate Testing	
<ul style="list-style-type: none"> • A/B testing: overview, best practices when planning and implementing tests, and review sample tests and reports • Review testing tool: Optimizely or Monetate 	Due: Final Group Presentation Company Selection <ul style="list-style-type: none"> • A/B Testing (optimizely.com) • Multivariate Testing (optimizely.com) • Comparing a Multivariate Test to an A/B Test (optimizely.com) • 12 Tips To Take Your A/B & Multivariate Testing To The Next Level (marketingland.com)
12. Mar. 29 – Metric Frameworks & Dashboards	
<ul style="list-style-type: none"> • Metrics & Dimensions Review • Measurement Frameworks • Dashboards • Tool review: Cyfe • Survey to determine Deep Dive on Apr. 19 	<ul style="list-style-type: none"> • How to Develop a Measurement Framework that Delivers Business Intelligence (market-bridge.com) • Five Rules for High Impact Web Analytics Dashboards (kaushik.net) • How to Monitor Your Entire Business in One Dashboard (Cyfe)
13. Apr. 5 – Attribution and Marketing ROI	
<ul style="list-style-type: none"> • Attribution definition and models • Marketing ROI 	<ul style="list-style-type: none"> • Multi-Channel Attribution: Definitions, Models and a Reality Check (kaushik.net) • How to Measure the ROI of Marketing Programs (marketo.com blog)
14. Apr. 12 – Turning Data into Actionable Insights and Creating a Data-Driven Culture	

<ul style="list-style-type: none"> • How to turn data into meaningful and actionable insights that your manager will thank you for. • How to humanize data so the audience can understand and take actions. • How to create a data-driven culture: top challenges, overcoming obstacles, and examples of organizations with data-driven culture. 	<p>Due: Assignment #3</p> <ul style="list-style-type: none"> • Readings TBD
<p>15. Apr. 19 – Deep Dive into One or More Topics</p>	
<ul style="list-style-type: none"> • Since 2.5 hours are not enough to study these topics well, the class will vote on March 29 which topics they want to deepen, for example: <ul style="list-style-type: none"> • Paid social media • Website metrics, e.g. advanced segmentation • How to optimize your site for search engines • An analysis of a real-world case brought by students or the instructor • Demo more tools • Otherwise, we will talk about social listening and risk mitigation. 	<ul style="list-style-type: none"> • Readings TBD
<p>16. Apr. 26 – Course Recap</p>	
<ul style="list-style-type: none"> • Recap of key concepts discussed in class, putting it all together for the final project 	<p>Due: Draft Final Presentations</p>
<p>17. May 3 – Study Days – No Class</p>	
<p>18. May 10 – Final presentations</p>	
<ul style="list-style-type: none"> • Final Group Presentations • Course survey 	<p>Due: Final Presentation Slides & Write-up</p>

SUGGESTED RESOURCES

I highly encourage you to rely on the resources below to complete assignments and to get hands on experience. Please install or bookmark them. Please note that you are not limited to these below. There are literally thousands of useful tools out there. You are encouraged to try out other tools that may be useful and share them with the class.

ADDITIONAL ANALYTICS READING

I highly recommend the following book (available as eBook in the Georgetown library):

Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity by
Avinash Kaushik

We dive into articles by Avinash Kaushik throughout the semester, but this is a comprehensive guide to digital and web analytics, and can be leveraged in the course.

EXCEL HELPFUL LINKS

- <http://searchengineland.com/how-to-excel-at-excel-for-sem-applications-part-1-19840/>
- <http://searchengineland.com/how-to-excel-at-excel-for-sem-applications-part-2-20453/>
- <http://searchengineland.com/how-to-excel-at-excel-for-sem-applications-part-3-21435/>
- <http://searchengineland.com/how-to-excel-at-excel-for-sem-applications-part-4-22119/>
- <http://searchengineland.com/how-to-excel-at-excel-for-sem-applications-part-5-master-pivot-tables-22684/>
- <http://searchengineland.com/how-to-excel-at-excel-for-sem-applications-part-6-23642/>

POWERPOINT PRESENTATIONS

<http://www.lifehack.org/articles/technology/10-tips-for-more-effective-powerpoint-presentations.html>

GOOGLE ANALYTICS ACADEMY

<https://analyticsacademy.withgoogle.com/explorer>

LYNDA.COM

[To access Lynda.com with your GUID you need to use this link](#)

(Requires your NETID and password)

WEB SITES/BLOGS

As technology constantly changes, staying up with current events and advancements is essential. In addition to reading the daily news, these are very good digital/social resources for you to use in deepening your knowledge.

ANALYTICS

Occam's Razor: <http://www.kaushik.net/avinash/>

Analytics Talk: <http://cutroni.com/>

Online Behavior: <http://online-behavior.com>

ADVERTISING/MARKETING

Advertising Age: <http://www.adage.com>

Ad Exchanger: <http://www.adexchanger.com>

Ad Week: <http://www.adweek.com>

eMarketer: <http://www.emarketer.com>

Mediapost: <http://www.mediapost.com>

MarketBridge: <http://www.the-digital-bridge.com>

TECHNOLOGY

Tech Crunch: <http://www.techcrunch.com/>

Re/code: <http://recode.net/>

Mashable <http://www.mashable.com/>

SOCIAL MEDIA

Allfacebook: <http://allfacebook.com>

Inside Facebook: <http://www.insidefacebook.com>

Twitter's Blog: <http://blog.twitter.com>