

Scheller College of Business
Georgia Institute of Technology

Spring 2019

MGT 4803: PRICING STRATEGY AND ANALYTICS

Session: Mondays/Wednesdays 3:00 pm – 4:15 pm

Scheller College of Business, Room 223

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Office Hours: by appointment, please email me to schedule a time.

Course Outline

What is the “right” price to charge for that forthcoming version of the iPhone in the market? What price should Apple charge for music download on iTunes? What factors influence firms’ pricing decisions in today’s marketplace? For most firms the “right price” is determined by margin requirements, matching competitive prices, or rules of thumb. However, most firms in today’s market have recognized the shortcomings of such a reliance on thumb rules and have implemented the sophisticated techniques at their disposal to inform pricing, advertising and promotion decisions.

This course aims to expose students to proven concepts, techniques, and frameworks for assessing and formulating pricing strategies. The first three weeks of the course will establish a foundation for effective pricing decisions by discussing key economic, analytical and behavioral concepts associated with costs, customer behavior and competition. The rest of the course will: (a) introduce students to advanced pricing techniques that aim to create additional value, including dynamic pricing, segmented pricing, pricing structures, and promotions, and (b) highlight practical applications of these approaches within a variety of specific industry contexts.

The course is quite quantitative in nature and takes into consideration the role of consumer behavior, economics and management science in determining pricing policies. From a practical implementation stand-point, it will involve model estimation/programming in R, SAS, SPSS and in some cases, MS Excel. This course will be especially useful and applicable to anyone who will be directly or indirectly involved in pricing decisions and will be particularly valuable to those who intend to work in general management, marketing, and consulting.

Pre-Requisites

This course has no prerequisites.

Learning Outcomes

By the end of the course you will have learned how to:

- Determine the appropriate value of a product or service to various consumer segments
- Estimate demand and price sensitivity for a product in the market
- Understand the psychological impact of pricing on consumer decisions/actions in the marketplace
- Determine the appropriate role of costs in pricing
- Identify and develop opportunities for price customization
- Integrate pricing into an overall marketing action plan

Overall, one of the best ways to learn about marketing is for you to experience it as a customer.

Watch TV, read magazines, shop! And while you are doing these things, think about how organizations decide what products & services they should offer, how to price them and how to communicate with consumers about those products.

Class Format

The course will comprise a mix of lectures and case discussions. Cases and problems will also be employed to make students apply their learning to practical situations. Class participation is strongly encouraged (note the participation component in the grading scheme). You are invited to highlight insightful linkages between class material and your past experience as a professional and a consumer, to raise challenging questions and issues related to the pricing topics being reviewed, and to participate actively in discussion of problems and cases.

Course Materials

We will follow the framework for our discussions based on a classic pricing textbook: “Power Pricing: How Managing Price Transforms the Bottom Line” by Robert Dolan and Hermann Simon, The Free Press, 1997. “The Strategy and Tactics of Pricing” (5th edition), Thomas Nagle, John Hogan and Joseph Zale, Prentice Hall, 2011 is a useful reference. While you are not required to purchase either textbook, please strongly consider at least renting them, and follow along with the readings throughout the term. There will be assigned readings (e.g., cases) outside from the text. These are available as part of a course pack: <http://cb.hbsp.harvard.edu/cbmp/access/56633482>. In addition, handouts may be provided in class as needed.

There may be assigned readings for each class session. It will be assumed that students have read and analyzed the case materials and problems assigned to each class and are prepared to discuss them in class.

Grading

While the learning environment tends to be low-stress, fun, and creative, you are taking the class for a grade. I will make sure that the grading system is fair and that you understand how I arrive at the grades. Ask me questions early on if you need clarification on how you will be graded.

You will be graded on:

- Class participation (15%)
- Assignments (50%) – 4 case write-ups, worth 12.5% each.
- Mini-case (35%)
- Final “bonus” project (5%) - optional

Class Participation. Attendance/class participation grades begin with the percentage of class sessions that you fully attend. Please note that “fully attend” means arriving on time, staying for the entire session, and appearing engaged during the session. I will make upward and downward adjustments to that percentage to reflect the number of class sessions in which you meaningfully contributed to the discussion. Class participation is your overall positive contribution to classroom learning. To contribute well, you must prepare prior to class, ask questions about concepts you don’t understand and make comments that help your fellow classmates understand the material better. When you prepare for class, try to jot down examples from your own experience that demonstrate the concepts in the reading. If you don’t have something to share, don’t just talk to talk - quality counts more than quantity. Please feel free to raise an opinion or offer an analysis no matter how different it is from the emerging theme in the classroom, or how unusual it may be. In some sessions, we will discuss numerical examples in class. I will ask for volunteers to demonstrate how to solve those numerical problems. This is another way of earning class participation points.

Attendance. Attendance is required in this course. Please note that this course requires all students who are absent for College athletic purposes or other College-sponsored required events to provide the instructor notice of such absence as soon as the student knows that he/she will be absent. Other excused absences, including jury duty, religious holidays, death in the family, documented illness, and other personal emergencies are cleared through the Dean of Students.

We have a very intense schedule as we will meet for three hours a week for nearly 16 weeks, so missing a class is a bad idea. With the exception noted below (see “exceptions to the free pass provision”), note that you may avail of a maximum of two “free passes” (e.g., internship/job interview that conflicts with class time, sickness/family emergency), over the course of the entire semester. This is contingent on your providing the necessary documentation for your absence. All subsequent absences may result in forfeited participation credit. The idea behind this policy is simple. If you do not come to class, it is also very hard to participate. I do take attendance, and you will not receive participation credit on days that you miss class. **Note that participation counts double on case discussion days and guest speaker sessions, so an absence on such a**

session amounts to a corresponding loss of participation points (see below exceptions section). If you must miss class due to illness or emergency, please try to let me know in advance by e-mail. Please also bring your name tents to class so that it is easy for all of us to refer to others by name. This is especially useful for us since we have to assign class participation grades.

Exceptions to the “free pass” provision: The **only** way to earn participation credit during case discussion sessions/guest lectures involving external speakers is to be physically present and contribute to our discussions. Therefore, “free passes” may not be availed of for such sessions.

Assignments (50%)

Throughout the semester, you will be asked to complete several brief assignments which will be based on industry cases (which will be made available to you as part of the course pack). These assignments not only allow you to learn the concepts better and facilitate discussion, but also they give me an idea of how well you’re grasping the material.

The assignments are to be turned in before the **beginning of class**. We will discuss the solutions to the questions on the assignment in class that day, so unfortunately, late submissions cannot be accepted. The grading on the assignments will be based on the effort you put into them as well as how they compare to your peers’ assignments. Exceptional assignments will get the highest grades, those given little effort will be given lower grades.

Mini-Case (35%)

A sizable chunk of the work in this class will involve your mini-case, which will be centered on applying the key concepts learned in class. For the mini-case, you will select a pricing problem faced by a real company, analyze their current pricing strategy and then develop a new strategy which you will present to the class. This work will be done in teams that you will be assigned to. More information on the format and requirements for the mini-case is available below.

There are several components to developing a mini-case:

- a) Topic Selection: Each team may select a firm, or where appropriate, a business unit within a firm, and intensively study its pricing policy. You need not obtain “inside access” to a company, although that is encouraged where possible. Use of publicly available information and your own research is acceptable. Teams need not restrict themselves to for-profit organizations; pricing studies for non-profits are also acceptable so long as you are able to collect insights/data on them. Note, however, that it is probably easier to collect information for larger firms, and especially for those listed on the stock market or in regulated industries.
 - Topic Selection Emails: This is the first mini-case deadline. Each team will send me an email – basically one short paragraph - containing the following information: i) reason for selecting the firm/business unit (what is

unique/interesting/new about it?), ii) description of the firm's current pricing policy/practices (3-4 bullet points) – and what kind of data you have/can readily get access to for your pricing analyses, iii) quick overview of your proposed changes to the pricing structure (your ideas for improving the current policy) – again 3-4 bullet points, iv) anticipated impact (what metrics you expect that this may influence – e.g., revenues/profits/shares). It is fine if the 'impact' section changes later based on your rigorous research/analyses – what I would like to see here is an overview of your thought process at the beginning of the exercise. One member from each team can send me this email, copying all teammates, to ensure that I only receive one email per team. This email is due to the instructor by **5 PM on Feb 6 (Wed), 2019**.

b) Report preparation: The written report would broadly consist of the following sections–

- i) *Rationale for topic selection* (why do you find pricing at the firm/business unit unique/interesting) – to be discussed up front in the report. One short paragraph is ideal.
- ii) *Overview of current pricing policy*: Reports should begin with a brief description of the unit, firm or industry's pricing objectives (maximizing profit/revenue/market share...), decision horizon (short/long run) and pricing practices. Make sure to consider all of the dimensions of pricing policy when preparing your description. Naturally, some aspects (e.g., business strategy) will be more relevant to this section than others (e.g., customized pricing) depending upon the industry/topic – so you are encouraged to devote the appropriate amount of coverage to overarching pricing policy vis-à-vis the nitty-gritty. The purpose of this introductory material is to quickly acquaint your readers with the basics of the situation. Therefore, please try to keep your discussion here as concise as possible.
- iii) *Critical evaluation of chosen price points*: In this section, you can comment on the current pricing level, trajectory, target appropriateness, price-centric competitive considerations, fit with chosen pricing policy (i.e., point ii above) etc. – or a subset of these issues. You are strongly encouraged to invoke data, supporting analyses and/or business insight over your “intuition” or “gut feel” while compiling this section.
- iv) *Analyses for improving upon existing pricing policy/strategy/levels*: In preparing this section, try to carefully select just a few issues for an in-depth treatment. Do not worry about trying to cover every possible issue that might pertain to the business or industry situation. This section would first discuss the collection of data (archival, experimental/survey, or qualitative data) and then the analysis that would build up to your recommendations. Lastly, you

would provide some model output/data patterns/logical reasoning that leads to your recommendations (in the next section) for how the firm can improve upon its existing pricing practices. For the analyses, you may use a combination of the various concepts/tools we learn, e.g., EVC, regression, psychological pricing, non-linear pricing, etc. If you use several tools, remember that the report should appear to be cohesive, so that the results of one analysis are related to another. Further, remember that the recommendations you offer should be supported by the analyses you perform (conversely the analysis has no value if no recommendation follows from it). A report with a very thoughtful treatment of two issues is likely to be much better than one that broadly skates over eight to ten issues.

- v) *Strategic recommendations:* This section would articulate your analyses-based viewpoints on how the firm could do better, and summarize in the form of strategic recommendations. Overall, creative data and/or analysis is a definite plus, as are simple and clear writing. Note that during grading, a substantial emphasis will be placed on the appropriate use of principles/concepts/methods covered in this course (though you are also free to borrow from related courses you may have taken).

Formatting guidelines for the report:

The text of the report should not exceed 10 pages in length (and shorter reports are quite acceptable). The report should be double-spaced, 12 point font, and have 1" margin all-around. Exhibits and appendices (to be presented at the end of the report) should be limited to six pages or less (this 6 page limit is in addition to the 10 page double-spaced; font in the exhibits and appendices should be 11 or 12 pt. font). Please make sure to provide the sourcing info for all exhibits. Have a cover page with the project title and team member names (again, this is not counted in the 10 page limit). Reports not adhering to these rules will not be accepted. For all teams, the written report comprising the above sections is due to the instructor by email **by 5 PM on Mar 27 (Mon), 2019**. This report will be shared with your classmates to help them prepare for class-discussions during the presentation (see below).

- c) **Presentation:** In addition to writing a report, you will present your research and “pitch” your findings in class. You are free to select any format/template for your presentation slide deck. The objective here will be to provide a clear verbal articulation of your research analyses/findings/recommendations, while continuing to hone/sharpen your public speaking and business presentation skills. The amount of time available to each team for the presentation will be decided based on the number of teams we have in class. A copy of your slide deck is due to the instructor by email **by 5 PM on Mar 27 – this deadline applies for all teams, irrespective of when your team’s presentation is scheduled.**

Each team member will receive the same mini-case grade (i.e., that of the team) unless the instructor is made aware of a serious free-riding problem well before the team's in-class presentation date. More information on mini-case grade distribution will be shared in class.

Final Assignment (5%) - optional

If you are diligent during the term, you may achieve your final desired grade without the necessity of this Final Assignment, but be aware that this is earned by you, and not just given by me. The final assignment will focus on your ability to generate innovative ideas to effectively manage the pricing strategy in a complex market environment, as a provision to “make up” extra points if desired. The final assignment is due by email at **5 PM on Apr 22, 2019 (Monday)**.

Mid-term and Final Exams:

This course has no Midterm or Final Exams! ☺

Re-Grading Policy

If you think that something (e.g., an assignment) was graded incorrectly and would like to have it re-graded, you will need to submit a **written** request stating exactly what you consider to be mis-graded and elaborate on why it should be graded otherwise. You must submit your request no later than one week after I hand back the assignment/case. This written request should be submitted with the entire, original assignment/case via campus mail or handed in to me in person. Keep in mind that the entire assignment/case will be re-graded in such a situation. Therefore, your new and final grade could be higher or lower than the original grade.

How to excel in this course?

1. **Participate:** Most students discount the importance of participating in class. Remember there is invaluable learning in the opinions and experiences you each bring in. I welcome opportunities of learning from you. As said before, your participation grade will be based mainly on the quality of class participation. In a business school course such as ours, it's important to realize early that small differences in your score on one component can contribute to a difference of a full letter grade for the course in the end. Needless to say that the “softer” elements such as these matter: a) being prompt (not being late for class for > 10 % of class days, turning in home works on time), b) being a good collaborator (be a good teammate when you work in teams, c) not missing too many classes.
2. **Throughout the course, constantly** – a) watch TV b) shop c) read magazines/surf the net d) keep asking yourself – “am I applying something I learned in class to visualize things around myself differently as a consumer?” e) try to keep pace with assigned readings for class.
3. **Initiative with contacting the professor:** It's important to seek help early and regularly if something in class (or in the textbook) isn't clear to you.

4. **Diligence:** I'll do my bit to periodically remind you about upcoming deadlines in class/via emails. But check the deadlines listed on this syllabus, plan ahead, start home works early and turn them in on time. Hard-wire the component deadlines into your mental study calendars and prep hard.

Courtesy

Anything that detracts from our full attention in class will reduce the quality of our discussion. For example, coming in late, leaving in mid-class, having side conversations when I am speaking or a classmate is speaking, is disruptive to fellow students. In particular, when fellow students surf the Internet or IM in class, it detracts from the quality of your education. Please do not tolerate this behavior in others or participate in it yourself—it will result in lowered course participation scores. If you see others doing this, please ask them to stop. **Laptop computers are not allowed in class unless necessitated by a disability or unless I explicitly state that we'll be using laptops for a simulation/demo/case analysis in class.**

Cell phones

You've probably all seen the YouTube video where the professor answers a student's phone in class, or even the one where the professor simply destroys the phone. I'm not that extreme, but treat the class like you would a movie theater (but please don't bring popcorn!☺). Turn off your cell phones until the end of class. This means no texting, IM'ing, or browsing on your phones (similar to your laptops above). I'll try my best to make the class interesting enough that you can put most of your life on hold for 1.5 hours. I know that sometimes you really need your phone available, so let me know beforehand if you expect some major news during class time so I know why you're running out the door with your phone.

Academic Integrity/Honor Code:

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit <http://www.catalog.gatech.edu/policies/honor-code/> or <http://www.catalog.gatech.edu/rules/18/>.

Home works and projects are expected to be the sole effort of the student (or team – only for team-based projects and home works) submitting the work. The honor code also applies to all home works and projects. You are expected to be aware of actions that constitute cheating, fabrication or falsifications, multiple submissions of essentially the same work for different classes, plagiarism, and complicity in academic misconduct. Note that academic misconduct includes, “Submission of material that is wholly or substantially identical to that created or published by another person or persons, without adequate credit notations indicating authorship,” (plagiarism).

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Official Communications

Both Canvas and the class email distribution list are used to post information on class changes, upcoming assignments, grades, etc. Communications will be sent to the Georgia Tech student email (that ends in @gatech.edu) that is assigned to you by the Institute. It is your responsibility to have the Georgia Tech email account active and to receive and regularly read messages written to that address. If you do not use your Georgia Tech email address, you should have your GT email forwarded to an account that you check several times each day and make sure it is not filtered as spam. That is also your responsibility.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404) 894-2563 or <http://disabilityservices.gatech.edu/>, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs. Disability Services offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Disability Services.

As per the instructions, it is your responsibility to bring me the faculty accommodation form to notify me about your needs in the class. I will treat information you provide to me about disabilities as private and confidential. I will appreciate hearing from you **at the earliest possible time (not right before deadlines)** – it's inefficient for both of us to wait until exam/presentation seasons are around the corner, to bring up any legitimate requests!

PRELIMINARY OUTLINE OF TOPICS

Class	Date	Topic	Case/Items due
1	7-Jan	Introduction	
2	9-Jan	Customer Value, EVC and Pricing I	
3	14-Jan	Customer Value, EVC, and Pricing II	
4	16-Jan	Costs and Profitability Analysis I	List of team members tba
*	21-Jan	MLK Day – no class	
5	23-Jan	Costs and Profitability Analysis II	
6	28-Jan	Customer Behavior and the Psychology of Pricing	Case: <i>Coke's Vending Machines</i>
7	30-Jan	Price Response Estimation	
8	4-Feb	Managing Competitive Dynamics I: Dynamic pricing	
9	6-Feb	Managing Competitive Dynamics II: Price Wars	Mini-case topic selection emails due
10	11-Feb	Segmentation I: Price Customization Strategies	
11	13-Feb	Segmentation II: Product Line Pricing	
12	18-Feb	Product Line Pricing in Practice	Case: <i>Keurig at Home</i>
13	20-Feb	Pricing in the Marketing Mix + Customer Lifetime Value Modeling	
14	25-Feb	Segmentation III: Bundling & Non-Linear Pricing	
15	27-Feb	Segmentation IV: Bundling & Non-Linear Pricing in Practice	Case: <i>Virgin Mobile USA</i>
16	4-Mar	Promotion Strategies I	
17	6-Mar	Promotion Strategies II: Retail Pricing in Practice	Case: <i>Tweeter Etc.</i>

18	11-Mar	Limited Dependent Variable Modeling and Machine Learning	
19	13-Mar	In class preparation for mini-case development	
20	18/20-Mar	No class: Spring Break	
21	25-Mar	Guest Speaker: tba	
22	27-Mar	Bidding & Negotiated Pricing	Mini-case report and mini-case slides due on Mar 27 at 5 pm
23	1-Apr	Project presentations	
24	3-Apr	Project presentations	
25	8-Apr	Project Presentations	
26	10-Apr	Network effects: Two-Sided Markets Pricing, Pricing and Versioning	
27	15-Apr	Technology and Pricing	
28	17-Apr	Social Media and Pricing - Big Data Analytics + practical demonstration & Textual Data Analysis	
29	22-Apr	Wrap up, consolidation of pricing principles	
	22-Apr	Final (optional) assignment due at 5 PM	