Marketing 265 (001): Principles of Advertising
Fall 2017

Tues-Thurs 1:30-3:00, Room F92

J. Scott Armstrong
Office: 747 Huntsman
Office Hours by Appointment:
Phone: 215-898-5087 (w); 610-622-6480 (h); Fax: 215-898-2534 (w)
Email: armstrong@wharton.upenn.edu
Website: http://www.jscottarmstrong.com

Objectives

"Advertising is fundamentally persuasion." Bill Bernbach, 1960

The learning objectives are to gain skills in:

1. *Evidence-based principles for creating persuasive advertising campaigns*. A 15-year effort to summarize a century of research has led to 195 persuasion principles. These principles do not appear in any other book (as shown in Armstrong 2011).

2. *Evidence-based techniques for improved decision-making in advertising*. There are currently 48 useful techniques. Use the Tools and Techniques Spreadsheet to guide your learning and track your progress. For example, one of these tools, the Persuasion Principles Audit, will allow you to make accurate pretests of which of a set of ads (for the same product and brand) will be most effective.

Content

Following Benjamin Franklin's advice, this course is designed to provide useful knowledge along with suggestions on how to apply that knowledge. To that end, I believe that there is only one reliable source for useful scientific knowledge – experimentation.

One study estimated that "persuasion is one-quarter of the GNP." The persuasion principles apply not only to advertising, but also to many other aspects of life, such as preparing a résumé, convincing your friends about an issue, making a persuasive speech, or writing a management report. In addition, as a consumer, you will be better able to defend against advertising "tricks."

Course design

This course offers a website that allows you to (1) schedule your learning at times that are convenient for you, (2) go through the "lectures" and other materials at your own pace, (3) allocate time to tasks that are most important to you, (4) obtain feedback on your knowledge of content when convenient for you, and (5) gain feedback on your ability to apply techniques and principles. In short, you can take this as an Internet course. This approach has also been used successfully at Stanford and MIT. The students found it less stressful and reported more flexibility given other demands on their

time. I have been using this design for several years, and the overall grades have been slightly higher for this course than for those of the more traditional classes that I have taught. I have no evidence on this, but my hypothesis is that those who would do well on the much-referenced marshmallowtest would also do well on the Internet version of this course.

There are two ways to get feedback: First, come to class and show me your applications; and second, work with a learning partner(s). (Based on my experience over the past 49 years it is extremely rare for me to miss a class.) See "Natural Learning in Higher Education" for a review of the reasons and evidence behind the methods used in this course.

Though attendance is largely optional, *there are four required classes*. One for planning, two for your presentations, and one for the final exam. The first two can be replaced by written submissions. There are also tasks that are scheduled for completion for certain class sessions.

Guarantee

If you follow the directions as specified, by the end of the course you should be better at designing and testing advertisements and creating a more persuasive advertising campaign than practitioners with many years of experience. Don't take my word on this, read A free version of the paper is now available.

Learning Resources

Instructor: My role is that of a coach. My responsibility is to provide you with (1) access to up-to-date evidence-based principles and techniques, (2) learning exercises, and (3) feedback about your ability to master the principles and techniques.

Your learning will be based on an independent certification procedure. I will not do any of the grading. My role is to help you impress the "certification evaluator" who has asked to play the role of a prospective advertising executive search firm. The class worked well in this respect. My impression is that all students who followed the schedule and who sought feedback from me or from others have received high grades from the "evaluator." In any event, you will be able to simulate this evaluation process and obtain a good prediction of how you will do.

I am available to comment on your work during the classes; if time is lacking in class, you may give me a copy to review and I will try to have it ready for you to pick up in-person by the next class.

For more information about me, see my homepage.

Canvas is primarily for communication among the class members. In addition, I will send announcements to you if changes are made on the syllabus, and the revised versions will be posted only on Canvas. Please contact me by email, not by Canvas.

Text (mandatory): The text is *Persuasive Advertising* (Palgrave Macmillan 2010), a runner-up for AMA's 2011 Best Book in Marketing. The aim of *PA* was to summarize all useful knowledge about persuasive advertising so that advertisers, consumers, consumer groups, courts, and government regulators could use it. (Available at Amazon.com and the Penn bookstore See adprin.com as needed for new findings and changes to the book. Part of the exam is based on the "end-of-chapter." Links to these questions are posted at the end of almost all lectures. This is one part of the exam that many students do poorly on. (In the past year, the grades on the end of chapter exam ranged from 10% to 95% with an average of about 60%.)

*The lectures do not provide all of the conditions. You will need to use the book in order to apply the principle*s.

Website: AdPrin.com won the Merlot Award as the best educational site in business and economics in 2004 and is currently rated as the best of over 292 advertising sites on Merlot. It offers spreadsheets for applications, describes Techniques and Concepts for Advertising, and provides print and video ads that illustrate good (and bad) applications of principles. To learn more about AdPrin.com, read the FAQ and take a tour of the site. If you see ways to make the site easier or more useful for students or have found errors on the website, please send me an email.

The course's experiential lectures are all available on AdPrin.com under the "Educational Materials" link.

The self-directed testing provided on this website will enable you to learn more efficiently. Test-taking helps people learn content: Given equal study time, you will learn more by self-testing than by reviewing the material.

AdPrin.com provides "end-of-chapter self-testing" in which you can check the book and grade your answers. In addition, there are true-false, multiple choice, and open-ended tests for which you can grade your answers, along with an exam on advertising tools and techniques. The following suggestions will enable you to more effectively retain the learning:

1. Take the tests at the beginning of the course. This will enable you to determine what you do not know, and you will find new information to be more meaningful when it fills in an answer later in the course.
2. Take the first test very soon after studying material to have high retention. The previously mentioned study on test taking also showed that learners lost about 30% of the content within five minutes.
3. Take the tests in short sessions. Avoid massed learning, or cramming. Retest yourself after a week or so.

Class Sessions

The purpose of the class sessions is to help you gain skills with some of the 195 principles, about 20 techniques (Techniques and Concepts for Advertising), and the six primary checklists in the top menu bar on adprin.com). Nothing is graded in the class sessions, of course

Go through the slides in "Slideshow" format prior to class. You will also need to read the *Persuasive Advertising* book, as the lectures include only the primary conditions for the principles and not enough detail is provided on the procedures and evidence to make applications. Also check the linked articles in the lectures.

Additional things for you to do in class:
(1) Make short PPT presentations on your applications of techniques and gain feedback from other participants. By doing so, you will improve your ability to make a persuasive presentation.
(2) Ask questions to aid your understanding of the applications.
(3) Meet with your learning partner or project group.
(4) Bring in things you have done, especially for your project, and get suggestions from me and from your classmates.

You: The primary resources for successful learning are your time and energy. Set a budget for the number of hours you will spend on the course and track your hours.

The course is not difficult to pass. Failure is rare. If you follow my advice and practice the exams, you will be able to see what your exam grades will be. Concerning the other components, such as the Tools and Techniques Exam, get suggestions for improvement from me during the class workshop sessions. You cannot do all of the readings and exercises so pick what you believe to be the most useful and put these on your timeline. A **proper timeline** will greatly improve your learning in this course.

Requirements and Grading

First, ground rules:

1. No credit provided until you submit all required materials
2. I try to provide a fair system and then to follow it to the best of my ability. I do not negotiate grades.

Here are the requirements to demonstrate competency with the principles and techniques (weights for grading in parentheses). I will try to prepare you for the exams and the other deliverables.. They will be graded by the course "assessment center" that I created. So I am not involved in the marking processOne of my goals is to help you get good grades. If you outperform previous classes, your grades will be higher. All materials provided on or before the December 12 deadline will receive a 10-point bonus.

1. Final exam (40%)
2. Advertising proposal project (30%)
3. Self-certification report (15%).
4. Tools and Techniques: Take-home Exam (15%)
5. Participate in the required sessions (0%)

1. **Final Exam (in class):**
   The questions will be taken from the *Persuasive Advertising* book, the adprin.com site, and the experiential PowerPoint "Lectures." The questions are posted on adprin.com on the Educational Materials page. (The majority of the answers are also posted on AdPrin.com.) Some questions will be selected from the "Self-administered Exams" on adprin.com. (10-point bonus on the exam score if test is taken at this time.)

   I have been using the *in-class final exams* for a few years. By taking the tests on your own you will be able to predict your final scores reasonably well. If not satisfied with your score, retake the tests after an interval of a week or so until you achieve the desired score. For additional information on how to improve your scores, see the advice under Self-Testing Materials in the "website" section below. I will be pleased if all of you get A's on the exam.

   Here are benchmark averages and ranges in percentages for Wharton students the first two versions of this format. (The * signifies that answers were provided in advance; for the other tests, only the questions were provided.) These grades do not include on-time bonus points. In the past, the low grades on the open–ended and end-of-chapter exams seem to have been due to the lack of effective timelines. The Fall 2015 class improved substantially on this. Still there is much room for improvement. Why would someone be satisfied with a score of around 10% when going into an exam?

	Fall 2014		Fall 2015		Spring 2016	
	Avg	Range	Avg	Range	Avg	Range
T/F*	95	68-100	98	94-100	99	95-100
Multiple Choice*	92	74-100	99	96-100	97	91-100
Open-ended*	58	8-91	77	53-93	75	49-98
End-of chapter	54	10-75	65	32-95	71	29-90

   Grades in Spring 2016 for "Tools & Techniques Take-home exam" Avg = 89; Range 68-98

   "Self-certification"   Avg = 91; Range 65-98

   The course grades will be based on a relative scale unless they are high relative to previous classes. In that case, there can be many high grades, as has happened in Fall 2015 and Spring 2016.

2. **Advertising Campaign Proposal:** Pick a project to advertise a product, service, cause, event, local business, or charity at a Penn event. It must be a high-involvement utilitarian product (or service). Do something useful. The project (individual or up to five people) should consist of a campaign that allows you to provide the following:
   1. Create at least two print ads, one video commercial, and one website mock-up.
   2. Show the use of checklists for creating each of the print ads as well as for the other ads you create.
   3. Use the persuasion principles audit for each of the ads that you created for step 1 above.

4. Use copy-tests to compare two print ads. Show the instruments used and other details from the copy testing lecture.
5. Recommend a media plan for your print advertisements using each of the procedures (except experimentation) described in Appendix E of *Persuasive Advertising,* provided on adprin.com
6. Show the use of tools and techniques. (You will annoy clients if you use jargon and fail to show what you did in detail.)
7. Provide a five-page report following the outline on AdPrin.com. (Appendices up to 10 pages)
8. Evaluate your report using the checklist for rating ad proposals. Seek independent ratings.

An Independent Grader will be asked to ensure that the project has (1) all of the required components, has (2) demonstrated that all of the relevant checklists have been used properly, (3) and how likely they would be to hire you to do advertising proposals.

3. Self-Certification Report: A good self-certification report should incline prospective employers to hire you. It describes what you did. It should demonstrate that you are good at self-planning (e.g., via timelines), a trait that relates to success in careers. It should provide convincing support for your claims, backed up by sources that are easy to obtain. Provide samples of your work.

       If you do not already have a personal website, I suggest that you create one so you can link to your certification report. Consider posting this on a LinkedIn   page.

       A grader who is not familiar with the course will be asked to take the role of a potential employer and, based on this report, to judge how likely she would be to schedule an interview with the student.

4. **Tools and Techniques: Take-home Exam:** Explain how you were able to apply five of the tools and techniques and any other techniques learned in the course. For example, the checklists in the top menu bar are excellent tools, as well as other checklists in the book (e.g., how to set objectives, how to allocate funds to the media).

Avoid checklists that look trivial. Choose ones that you think will be new and useful. Prove that they are useful. Show that you know how to use each tool. (Use the applications that you did when going through the lectures, for example.) Refer to applications in your advertising project and do it in such a way as to impress someone who has not previously heard of these techniques.

The assessment evaluator would grade the application using a 0 (very low) to 10 (very high) for each of the six criteria below. The score will add the ratings for "a" through "d" for each technique. For example, the degree of difficulty for brainwriting is low; it will look like something one can learn in five minutes.

       _____a. importance ____
       _____b. demonstrated usefulness _____
       _____c. new to the grader _____
       _____d. believable evidence that you mastered the technique ____
       _____e. Persuasive description _____
       _____f. difficulty of learning the technique. _____

This is a take-home exam and you must work individually. That said, you are allowed to ask people *who are not in this course* to grade your answers and to give you feedback. Use simulated interaction to determine whether this report will persuade the evaluator of the certification procedure. Test the certification report. Prove that your Certification report is persuasive by using the Persuasive Reports Checklist

Schedule for Marketing 265 (001): Advertising – FALL 2017
Tuesday & Thursday classes 1:30-2:50
(See notes on schedule on the following pages)

Lecture	Date	Lecture Title (main activities in bold)
		*Note that five sessions are **REQUIRED**. If you miss any, submit a written report on your solution.
		The **Bold** are topics that will be discussed on each day to help you gain skills and *do well on the proje*
1	8/29	Introduction Lecture (details below)
2	8/31	Creativity and evaluation techniques Lecture. Use the techniques to select a project (details below).
3	9/5	Conditions Lecture: **Describe objectives for the client in your project.**
4	9/7	Target Market Research Lecture. **Design questionnaire to assess target market**.
5	9/12	Information Lecture: Take the Final exam for T/F, MC, and Open-ended, and report your scores.
6	9/14	**Progress to date on your written project with timeline (REQUIRED Session)** (details below)
7	9/19	Prepare for Waste Management report (details below). Use the PPI
8	9/21	Emotion & Mere Exposure lecture:
9	**9/26**	**Present Waste Management oral proposal (PPT).** (**REQUIRED**)
10	9/28	Resistance lecture (my favorite; surprising and useful persuasion principles),
11	10/3	Acceptance Lecture. Workshop to prepare Ansett case.
	10/5	FALL BREAK
12	10/10	Message lecture: **Show website prototype for your project.**
13	10/12	Attention Lecture; Also Copy Testing Lecture; Also use the "Features" section of Copy Testing
14	10/17	**Mid-semester Assessment**
15	10/19	**Pretest two print ads for your project.** Show PPI and copy testing results
16	10/24	Media allocation lecture: Start the Gardenburgers case
17	10/26	Still media lecture. **Bring your resume (hard copy)**
18	10/31	**Present your recommendations to the Gardenburger CEO**
19	11/2	**Prices**
20	11/7	Distribution
21	11/9	Motion & sound media lecture. **Show video commercial for your project.** Use Persuasion Principle
22	11/14	Legal Aspects Lecture: Add to your proposal
23	11/16	**In-Class Exam (REQUIRED class)**
24	11/21	Scott to provide suggestions on Self-certification and Tools and techniques exam,
	11/23	**Thanksgiving**
25	11/28	Evaluating an advertising proposal: Do the *Seducing these Men* exercise (Details below).
26	11/30	**Report scoring for use of all six checklists for final Presentation & action steps**
27	12/5	**Revise your resume using persuasion principles and get suggestions from others**
28	12/7	**Presenting Oral Proposal for your project to Clients - (REQUIRED class)**

12/12		**Submit Written Proposals**

All required materials other than the final exam are to be submitted in hard copy on or before 4 PM on December 12. Ten-point bonus on the total score if all deliverables including exam are submitted on time.

Procedures and Notes on the Schedule

We will follow the schedule unless we decide that a change is needed. The electronic version is easier for you to use as it has links to key materials. Updates will be provided electronically about any changes. Please send me emails about mistakes and broken links on the syllabus.

Here are the guidelines for the *Standard Classes*.

1. You can come and go as you please.
2. Please bring your laptops, the *Persuasive Advertising* book, and hard copy of your work materials to all classes.

When there is a *scheduled presentation*:

1. Present as if this were a real situation.
2. We will try to allocate time equally.
3. Everyone will be asked to provide helpful suggestions to the presenters on the use of principles, techniques, and checklists.

Details on some of the sessions:

S1._____ Introduction lecture (Preface, Introduction, Types of evidence from PA)
I assume that many people will not prepare for the first day.

Class: Why techniques and research findings are valuable in advertising.
___1) Bose Ad Exercise [adprin.com under Educational Materials/exercises]
___2) Find a learning partner.
___3) Form short-term groups of up to six people to start the first task (optional).
That task is to produce a print ad to advertise your group as a new ad agency.
Follow-up:
1. ____Read this course outline and see if you can make any improvements. If so, please send me an email.
2. ____Take the five-minute "Test your advertising IQ."
3. ____Read the AdPrin FAQ.

S2._____ Creativity and evaluation Lecture
Standard Class preparation plus
____1. Use the techniques and checklist in the lecture to develop a number of possible project ideas for a high-involvement utilitarian product or service.
____2. Use the evaluation techniques to narrow the list to *two* possible products to advertise
____*3.* When you discuss a project with a potential client, use non-directive interviewing.

S3._____ Conditions
Standard Class preparation plus:
1.___ *See* the House Ad task (optional) to advertise your group as an ad agency; apply concepts and techniques for the section on "Names" on AdPrin. The house ad should include the names and contacts for all group members in the ad. Use the "Persuasion Principles Checklist" for Creating Ads. Use virtual groups after your first meeting. Some of you may decide that you would to continue to work together.

S4._____ Target market research lecture
S5._____ Information lecture
1.___Also do the ten-minute individual exercise "Predict Which Ad Pulled Best"

2. ___Read "Predictive Validity of Evidence-Based Persuasion Principles"

S6.____PROJECT REPORT DRAFT. REQUIRED CLASS.
Bring four extra copies of your project report, the Advertising Proposal.
Get suggestions on your written project report from other teams and from Scott.

S7.____ Influence Lecture: Waste Management Proposal (Optional)
Preparation session for the advertising pitch for Waste Management. Use the principles to date to propose a TV campaign for Waste Management, but focus especially on applying the influence principles. As in all ad design cases, use the Persuasion Principles Checklist. Do not look up any information about Waste Management. Use the outline for advertising proposals. Form groups if and as you like. The process will be similar in format to the final project proposal.

S8. ____ Emotion & Mere Exposure Lectures

S9. ____ Present Oral Proposals on Waste Management (REQUIRED)

S10. ___Resistance Lecture

S11. ___ Acceptance Lecture
Workshop to prepare strategy for a requested TV campaign for the Ansett Airlines (optional)

S12____ Message Lecture
Class: Bring a mock-up of a website for your project along with a list of the techniques and materials that you used to design the site. Exchange your mock-up with others
1. Use the checklist of advertising principles section on message to develop the mock-up of a website for your project. Consult the *Persuasive Advertising book* as you make the applications.

S13. ___ Attention Lecture. Pre-Testing Ads by PPI and Copy Testing

S14.____ Mid-semester Assessment
Bring your progress to date on the elements that will be graded (see syllabus)

Final exam (You most recent scores on the TF, Multiple Choice, Open ended exam, and end of chapter questions). What advice would help you to improve the scores?

Advertising Proposal: 5-pages. Rate it against the Proposal Report Outline, and against Rating Ad Proposals from 6 = demonstrates little learning to 10 = this would really impress a potential employer.

Self-Certification report. Grade it on a scale from 6= I would not get the job, to 10 = this would really impress an advertising agency.

Tools and techniques Take-Home: 6 = demonstrates little learning, to 10 = this would really impress an advertising agency.

If you cannot be at class, please send me your assessment. If you come to class, I will offer suggestions for improvement.

S15____ Pretest two print ads for your project first by Copy Testing then by the PPI.
Make a short presentation to a client explaining how these analyses should be uses (PPT)

S16.____ ___ Media allocation Lecture

      Class: Present your solution to the Gardenburgers Exercise. We will use Gallery Writing. This is an actual case; do not check what happened. Use only the information in the materials provided to you. Use each of the procedures to estimate how much should be spent on the total advertising budget and how the budget should be allocated across media. Develop an estimate for each method by averaging across analysts. Then combine across each of the methods.

S17. ___ Still Media Lecture

      Apply Persuasion principles to your written report, including all principles and not just those related to print. Bring extra copies to get suggestions from others. Use the Persuasive report checklist and compare your index with those of others.

S18 ____Present Recommendations to Gardenburger CEO

S19____ Pricing lecture

S20____ Distribution Lecture

S21____Motion and Sound Media Lecture

      Bring a storyboard for a video commercial that you plan to use for your project. We will then go through the lecture so you can see how to improve the storyboard.

      Use a smartphone to create a 30 to 60 second video to advertise your project. The exercise takes about 2 hours; more time will, of course, lead to a better commercial As an alternative, consider an animated movie maker, such as Plotagon, GoAnimate, or Movie Maker.

S22 ___Legal Aspects Lecture

S23___ In Class exam - Required

S24___ Get suggestions on Certification Report and Tools and techniques

S25____ Evaluating an Advertising proposal: "Seducing these men"

      ____ Analyze the proposal in "Seducing these Men" by using "Rating Ad Proposals."

      ____ Then repeat the exercise using your project.

      ____ Report on each of these audits in class by using Gallery writing.

S26___ Report scoring for use of all six checklists for final Presentation & action steps

Thanksgiving

S27___ Revise resume using the Persuasive Reports Checklist.

      Bring hard copies to get suggestions from others

S28___ Present oral proposal on PPT Use Persuasive Reports Checklist

==Assessment Center or== Self-Certification

      The self-certification enables a student to become certified for "Evidence-based Advertising." Your report is useless unless it is persuasive. To be persuasive, it needs to show what you did *in detail*. It needs to report facts, not your opinions. Thus, if you have not kept a time log, do not guess how much time you spent. Provide links to published sources that you used. (But it is unethical to cite a paper that no one on your team has read). Avoid jargon unless it is explained.

Provide a cover letter. In that, you must provide a code of ethics or "oath" that you have followed. Write this oath at the start of the class and put it on the Internet to support the fact that it was written at the near the start of the class.

Budget a certain number of hours per week that you will spend on your learning for this course. I suggest 10 hours per week for those who want to improve their skills.

Consider how to impress a prospective employer without overburdening them with material. If you do not already have a personal website, I suggest that you create one to link to samples of your work.

Self-Certification for Evidence-based Advertising Principles and Techniques

This *evidence-based* advertising course has been under development by Wharton Professor J. Scott Armstrong since 1990. It is designed to help people apply the cumulative knowledge developed from experiments over the past century. Research evidence demonstrates that ads that follow evidence-based procedures have been shown to be more effective than those that do not. The research on the principles is summarized in *Persuasive Advertising*.

I certify that I have completed the advertising course. (Link to the course syllabus.) I list the tasks that I completed in my efforts to learn advertising principles and techniques (inputs) and my tangible achievements (outputs). I can provide supporting information on items marked with an asterisk.

NAME (Last, First)_____**Date**_____ **Mkt 265**

Please Print

Inputs

* I-1. I have *documented* spending ـــــ hours for all of my learning efforts in this course. I recorded hours on each day that I spent time. (Time log required showing task, time spent, and date.) Sign an ethical statement.

* I-2. I have studied the *Persuasive Advertising* book and have documented spending ـــــ hours doing so. The entries were recorded on the day that I spent the time. (Time log)

*I-3. I have completed ـــــ of the experiential lectures on AdPrin.com. Provide list in Appendix)

*I-4. I have used the evidence-based checklist for oral presentations ـــــ times. (show PI and details)

*I-5. I have used the evidence-based checklist for written presentations ـــــ times. (show PI and details)

I-6. I completed the multiple-choice & T/F exams ـــــ times and my most recent scores averaged ــــــــ%. My actual score was ـــــ% on the exam proctored at Wharton.

I-7. I completed the open-ended exam on AdPrin.com that was proctored by the Wharton School. My score was ــــــــpercent.

I-8. I completed the full set of the end-of-chapter questions that was proctored at the Wharton School. My score was ــــــــpercent.

I-9. I have attached the spreadsheet showing my familiarity with the 48 Tools and Techniques for advertising It shows my before and after ratings of mastery.

I-10. I have examined the new evidence on the principles that is on AdPrin.com. YES ـــــ NO ـــــ

*I-11. I have used the [skill-rating sheet](#) and the [mastery chart for techniques](#) to guide my learning and they are attached. YES ___ NO ___

* I-13. I have worked through ____ of the [experiential exercises](#) on AdPrin.com. (see list).

*I-14. I have guided my work by using the attached [timeline](#). Attach.

I-15. I have completed the self-training course for the [Persuasion Principles Audit](#). YES ___ NO ___

Output

*O-1. I have applied the [Persuasion Principles Checklist](#) to create ____ print ads, ____ video ads, and ___ websites. Provide list with links

Q-2 I have applied the [Persuasion Principles Audit](#) to ___ print ads, ___ video commercials and ___ websites. Provide list with links

*O-3. I have applied techniques for setting media [investments](#) for ___ an advertising campaign. Provide one example.

*O-4. I have written [an advertising proposal](#) and checked it against [recommended procedures.](#)   YES ___ NO ___ If Yes, attach.

Independent testing

Q-1. I have taken an 80-minute test on my mastery of the content in this course.Professor Armstrong gave the test at the University of Pennsylvania on (date)_____. My grade was _____

Your Name (PRINT; Last Name First)_____

Signature _____ Date _____

This Certification Report form has been created by Professor J. Scott Armstrong at the Wharton School, University of Pennsylvania. He uses this in his course at the Wharton School to allow students to demonstrate their mastery of the content.