

**California State University Channel Islands**  
**Martin V. Smith School of Business & Economics**  
**BUS 499 CAPSTONE: GLOBAL STRATEGIC SIMULATION**  
**Fall 2008**

<b>Monday, 9:00am - 11:45am</b>	<b>Dr. Jeffrey Stone</b>
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### **Course Description**

This is a required upper division course for the Bachelor of Science in Business. The course is a culminating experience for business a major that attempts to integrate all previous business related material. Students are required to develop comprehensive approaches to business situations. Students analyze cases and create their own businesses via an intensive simulation experience. It is essential for students to understand the inter-related nature of all business disciplines. Also, through intensive group activities, students gain an appreciation of working with others in stressful circumstances.

### **Learning Objectives**

Students who successfully complete this course will be able to:

- make and implement business decisions via a simulation exercise
- produce analyses and present analyses orally and in writing to their peers and to a larger audience
- create effective business plans and clearly describe strategies, goal and objectives
- summarize orally and in writing the performance of businesses
- demonstrate skills to work with peers in small groups to produce timely decisions and excellent oral and written reports

### **Content**

Through the use of a simulation game and business case analysis, the course demonstrates the integration of accounting, finance, economics, marketing, production, quantitative analysis and human resource management. As a major focus of the course, students work in Teams to identify and resolve problems, and implement plans.

The course uses a computer simulation Management Game to provide students with an experience in business-decision making under uncertainty. Students develop and implement strategies to operate an ongoing firm in an international environment. Each firm competes in a consumer goods industry against several other firms. Students are responsible for decisions related to product price, quality, production, aggregate planning, marketing and financing. Students are expected to utilize knowledge gained in the business core courses and to apply the appropriate techniques and tools. Students will be dealing with issues related to (but not limited to) the following:

Accounting:	Application and interpretation of accounting data.
Finance	Ratio analysis, financial statements, and financial planning.

Operations Management:	Product line management, strategies of promotion, advertising and pricing, and analysis of the marketing environment.
Economics & Statistics:	Aggregate production planning and production standards for quality, cost and quantity control.
Management:	Statistical analysis and quantitative models including forecasting methods, and the economic environment.
Information Systems:	Planning, organization, motivation, and communication.
	Forecasting and financial simulation models.

## Texts

*Crafting and Executing Strategy* by Thompson, Strickland and Gamble, 16th Edition, McGraw Hill, ISBN:

*The Business Policy Game, International Strategy Simulation: Players Manual* by Cotter and Fritzsche, 5th Edition (paperback), Prentice-Hall, 2002. If you do not want to purchase the Game text, you may use a read-only copy on your PC.

Grading	Points	Basis
Performance on Computer Simulation Game	200	Team
Three-Year Plan	100	Team
Final Report: Oral	20	Team
Written	80	Team
Written Case Papers (5)	100	Individual
Exams (2)	160	Individual
Quizzes (10)	100	Individual
Attendance/Participation/Professor Evaluation	40	Individual
Total	800	
<u>Points</u>		<u>Grade</u>
800-720 =		A
719-640 =		B
639-560 =		C
559-480 =		D
Below 479 =		F

No Plus/Minus grading will be used in this course.

## The Computer Simulation Game

The computer simulation game allows students to apply previously learned concepts, skills and techniques in an international competitive and goal-oriented environment. Successful management of a firm requires

a balanced emphasis among all functional areas. The game is a dynamic-interactive simulation. The effectiveness of Team decisions rests both on the decisions' theoretical correctness and on the competitive decisions of other Teams.

The Game website is at: <http://www.eskimo.com/~bpg/> and you must enter the User Name: **player** and the Password: **swb30oss** to go to the "Player's Area." Note that all of the characters in the user name and password are lower case. From the Player's Area of the web site, you can download the player's Program – which includes spreadsheet templates, a non-printable version of the player's manual, and purchase the License needed to play the Game. After teams have been formed, by xxx each team must purchase a Game license (\$100 per team) from this web site. You must enter your World Number and team Number to get the correct license. See page 35 of the Player's manual for further instructions.

After obtaining the license – which is a small file that you receive by email about one day after you pay for the license – you must do two things: First copy the file with the license on to your Player's USB Device. Second, forward the email you received (including the license) to [Hilda.serrano@csuci.edu](mailto:Hilda.serrano@csuci.edu).

Without a valid license for every team, the game stops after Year 3, so obtaining the license by **Monday 9/8** is critical. **Do not open the license file since this may corrupt it.**

### Criteria Weighting Factors

Each firm must submit Weighting Factors for the criteria used to measure successful performance in the simulation game. Values for Preliminary Weighting Factors are due with your Game Decision on **Monday 9/15**, and Final Weighting Factors (used for grading) are due on **Monday 10/6**. Twenty (20) points or Weighting Factors must be distributed among the six criteria described below, subject to the stipulations given.

$$\text{RETURN ON ASSETS (ROA)} = \frac{\text{Average Net Income Years 3 thru 7}}{\text{Average Year End Assets Years 3 thru 7}}$$

$$\text{RETURN ON EQUITY (ROE)} = \frac{\text{Average Net Income Years 3 thru 7}}{\text{Average Year End Equity Years 3 thru 7}}$$

At least 5 points must be given to the combination of ROA and ROE.

$$\text{MARKET SHARE (MS)} = \frac{\text{Total Company **Dollar** Sales Years 3 thru 7}}{\text{Total Industry **Dollar** Sales Years 3 thru 7}}$$

$$\text{STOCK PRICE (SP)} = \text{Avg. Year End Stock Price Years 3 thru 7}$$

At least 3 points must be assigned Stock Price (SP).

$$\text{UNIT PRODUCTION COST (UPC)} = \text{Avg. Unit Prod. Cost Years 3 thru 7}$$

$$\text{TOTAL NET INCOME (TNI)} = \text{Sum of Net Income for Years 3 thru 7}$$

At least 2 points must be assigned to Total Net Income (TNI).

Other Rules:

- Except as noted above, 0 points may be assigned to a factor.
- No fractional points may be assigned.
- The unit sales price in Serano can be at most 5 times your lowest Merica unit sales price (based on current exchange rates).
- Endgame strategies are forbidden. Teams that play endgame strategies will be penalized on their final score. Please refer to the game user's manual for the definition of an "endgame strategy."

## GAME DECISION SCHEDULE

All decisions are due by **1:30 PM** on decision due dates. Turn in your Decision USB Device to Effie Karacali in the Sage Hall, Room 2038.

<u>WEEK</u>	<u>DAY</u>	<u>DATE</u>	<u>ACTIVITY</u>
1	Mon	8/25	Orientation/Team Formation - Dr. Stone
	Thu	8/28	Trial Decision for Year 3/Quarter 1 (Practice Decision)
2	<b>Tue</b>	<b>9/2</b>	<b>Year 3/Quarter 1 (First Game Decision)</b>
	Thu	9/4	Year 3/Quarter 2
3	Mon	9/8	Year 3/Quarter 3..... <b>License due to Hilda Serrano</b>
	Thu	9/11	Year 3/Quarter 4
4	Mon	9/15	Year 4/Quarter 1..... <b>Preliminary Weighting Factors due with your Game Decision on Monday 9/15 by 1:30 pm</b>
	Thu	9/18	Year 4/Quarter 2
5	Mon	9/22	Year 4/Quarter 3
	Thu	9/25	Year 4/Quarter 4
6	Mon	9/29	Year 5/Quarter 1
	Thu	10/2	Year 5/Quarter 2
7	Mon	10/6	Year 5/Quarter 3..... <b>Final Weighting Factors due with your Game Decision on Monday 10/6 by 1:30 pm</b>
	Thu	10/9	Year 5/Quarter 4
8	Mon	10/13	Year 6/Quarter 1..... <b>Three Year Plan due at the beginning of class.</b>
	Thu	10/16	Year 6/Quarter 2
9	Mon	10/20	Year 6/Quarter 3
	Thu	10/23	Year 6/Quarter 4
10	Mon	10/27	Year 7/Quarter 1
	Thu	10/30	Year 7/Quarter 2
11	Mon	11/3	Year 7/Quarter 3
	Thu	11/6	Year 7/Quarter 4 (Final Decision)
16	Mon	12/8	<b>Final Written &amp; Oral Report</b>

## Instructions for Computer Simulation Game

1. Game Drop-off and Pickup: Sage Hall, Room 2038
2. Room 2038 will be open until 5:00 PM on Monday and Thursday so you can pick up outputs.
3. Dr Stone's Monday class will be in World 31.
4. General Game Overview:
  - a) The Teams are companies that compete against each other to manufacture and sell a consumer durable product with a wholesale price of about \$10.00.
  - b) Each Team will decide what product it is selling. But for purposes of the game, all products are assumed to be the same and are in direct competition with each other. Each Team establishes a strategy (explained in its Three-Year Plan) and then tries to reach its objectives in the competitive environment of its World.
  - c) To indicate its priorities, each Team will assign values to the six Criteria Weighting Factors (ROA, ROE, MS, SP, UPC, and TNI) defined on page 3 of this Syllabus. Preliminary Weighting Factors are due with your Game Decision on **Monday, 9/15**, and Final Weighting Factors are due with your Game decision on Monday **10/6**.
  - d) Part of your course grade will be determined by how well your Team does against the other Teams in your World - based on the priorities your Team chooses in the six Criteria Weighting Factors.
  - e) Teams will submit inputs using a Decision USB Device for Years 3 - 7 where each input covers one quarter of a year of operation. See page 4 of this Syllabus for due dates for the decisions. The game covers seven simulated years. Years 1 and 2 are past, and historical data for these years are on the Decision USB Device in the Reports menu.
  - f) The game has four geographical areas, which you should consider as subsidiary firms (Areas 1 - 4) as described in Chapter 3 of the *Player's Manual*. Your strategy may vary from area-to-area. The home area for each company is as follows:

Area 1: Eastern Merica, Teams 1 and 4	Area 3: Western Merica, Teams 3 and 6
Area 2: Southern Merica, Teams 2 and 5	Area 4: Serano, No Teams
5. Game Inputs and Outputs:
  - a) We use the Windows version of the game. During Week 1, each Team will receive its own Decision USB Device, which must be used to submit each decision.
  - b) For each decision, first fill in the Decision Form shown in the *Player's Manual* on page 12. The numbers you choose will be based on the strategy you are using for running your company. Then, use the Player's Program to enter these inputs from your Decision Form onto your Decision USB Device.
  - c) It is critical to get your inputs correct, since the game will not be rerun if you make an input

mistake. Have one person check what another person has done. Your Decision USB Device contains a menu-driven input program which is user-friendly and provides HELP. The <F1> function key provides on-line context specific HELP.

- d) After you enter your decision inputs onto your Decision USB Device, print two copies of your inputs (using Shift - Print Screen). Keep one copy for your records and give the other copy to the Assistant in Sage Hall Room 2038 when you turn in your Decision USB Device with your quarterly decisions on it. You may also wish to make a backup copy of your Decision USB Device.
- e) You must turn in your Decision USB Device with your decisions on it to Sage Hall Room 2038 by 1:30 PM each Monday and Thursday. Your Decision USB Device and one copy of game results will be available in your Team folder in the Sage Hall Room 2038 by 5:00 PM that evening. For security, in Sage Hall Room 2038, you must sign in and provide a photo I.D. before turning in your Decision USB Device or collecting any output.
- f) The *Player's Manual* is your rulebook for the game, and it contains more answers than any Professor or Assistant can give you. Study the *Player's Manual* and reread it often, since you will continue to pick up new clues each time you study it. The game is so complex that you should not expect your Professor or Assistant to always be able to answer your questions. When in doubt, rely on the *Player's Manual*.
- g) The Trial Decision for Year 3/Quarter 1 is due **Thursday 8/28**. This is for practice: use it to learn the game and computer procedures.
- h) You may have your company name (up to 48 characters) printed at the top of your game output reports. To use this option, turn in the Corporate Charter (page iii of *Player's Manual*) to the Professor.
- i) **WARNING:** A common error is to forget that new models do not go on sale until the quarter AFTER the quarter in which production starts. Hence, the marketing effect of the new model does not become apparent until the quarter in which it goes on sale. If you change to a new model, you should not increase your prices to cover higher costs until the new model goes on sale (which is the quarter after production is started). The explanation is on pages 17-18 of the *Player's Manual*.
- j) Use the "Research" pull-down menu at the top of the Decision Screen to purchase any of the five separate Market Research reports. These Reports will be placed on your USB Device for your access and printing.
- k) A summary of game variables is on pages 38-40, and a summary of relationships is on pages 98-99.

### Three Year Plan (for Years 5-7)

Each Team will write a Three-Year Plan for Year 5/Quarter 1 through Year 7/Quarter 4. Include seven major sections and use the following format:

Title Page - Professor's name, World number, Team number, group members, date, and company name.

Table of Contents - Indicate page numbers for each section, and provide the location and title of all exhibits. If you add sections or an Appendix, include them in the Table of Contents.

Number each page, including the Appendix.

- 1) INTRODUCTION – Provide an overview of the plan. Describe the company and its products.
- 2) ORGANIZATION - Describe the organizational structure and the job assignments. Include an organization chart showing responsibility of Team members. Do NOT include real or fictitious resumes.
- 3) GOALS/OBJECTIVES
  - a) Show both Preliminary and Final Weighting Factors. Explain why you selected these weights and explain any changes between the Preliminary and Final Weights.
  - b) For each of the Six Weighting Factors, provide quantified financial objectives for Years 5-7. These financial objectives must be based on the level of performance required to win each of the six categories in the Game. State “how much” and “when” for each objective so that the results for Years 5-7 can be measured unambiguously. For example: Net Income: \$5,000,000 for Year 5 and \$8,000,000 for Year 6 and \$9,000,000 for Year 7; Stock Price \$15.00 at the end of Year 5 and \$25.00 at the end of Year 6 and \$27 at the end of Year 7.
- 4) MISSION/STRATEGIES – Describe the Mission (why does the firm exist?) and primary strategy (what is the firm’s primary business?). Describe the functional strategies for three areas: marketing, operations and finance. Discuss your functional strategies for such specific items as price, advertising, research and development, salary, commission, dividends, safety stock, hiring, firing, new product introduction, training, quality level. An effective strategy is quantified and guides decision-making.
- 5) SALES FORECAST – Provide a quarterly sales forecast in units and dollars for the entire industry and for your company for Year 5 and Year 6 and Year 7, by quarter and with the yearly totals (15 forecasts.) Only provide a Summary Chart (not for each Area) that shows the consolidated forecasts in both units and dollars for the industry and for your company. Discuss the methods used to make the forecasts. Discuss decision-making models or processes used by your Team members to make decisions. Show when you plan to introduce new models. Detailed regression charts should be included as exhibits.
- 6) PRODUCTION PLAN- Provide a quantitative quarterly production plan for each of your factories for Year 5 and Year 6 and Year 7. Detailed worksheets do NOT need to be included. Provide a consolidated production plan, in units per quarter, in a Summary Table. Give your assumptions for developing the production plan: overtime, second shifts, number of lines, safety stock. Discuss decision-making models or processes used by your Team members to make decisions.
- 7) FINANCIAL STATEMENTS
  - a. Proforma Assumptions (5%): At the beginning of this section, state each assumption used in calculating your proformas. For example: Advertising = 1% of quarterly sales; Dividends = \$.05 per share every quarter. These assumptions should be the same as the assumptions in the Mission/Strategy section. Do NOT list the assumptions or equations common to all companies that are listed in the BPG *Player’s Manual*.



- b. Income Statements, Balance Sheets, and Cash Flow Statements (20%):** Provide quarterly statements with annual totals covering Years 3 through 7, in dollars, consolidated for your company – not by the four geographical areas. The Year 3 and 4 statements will show actuals, while Years 5 and 6 and 7 will be pro-forma. Arrange the statements in a logical order and explain (to the reader) how they are organized. The Income Statement and Cash Flow Statements require consolidated quarterly statements and annual totals. The Balance Sheets should not be quarterly - only Year-End Balance Sheets.
- c. Proforma Analysis (5%):** For each of the six performance criteria, compare your proforma results in your financial statements with the Goals/Objectives (Section #3). For example: if your objective was to achieve Net Income of \$5,000,000 in Year 5 and \$8,000,000 in Year 6 and \$9,000,000 in Year 7, compare the Net Income from the proforma with these three objectives.

### **Overall Appearance**

Your report must be typed on single sides of white paper, single or double spaced, between 15-40 pages, plus exhibits. When appropriate, use graphics and charts to convey concepts, analysis and ideas. However, do NOT use gratuitous graphics just because you have a color printer. Be careful. Use correct spelling and grammar. All Team members should proof read the report. Often a PC-based spell-checker misses errors. It is your Individual responsibility to make sure that your Team produces a professional looking report.

### **Grading for the Three Year Plan**

5	1. Introduction
5	2. Organization
10	3. Objectives
15	4. Mission/Strategies
20	5. Sales Forecast
10	6. Production Plan
30	7. Financial Statements
<u>5</u>	8. Overall Appearance of Report
100	<i>Total points available for Written Report of the Three Year Plan</i>

### **Final Corporate Report**

During the period scheduled for the course Final Exam, each Team will present a Final Report orally in class (using PowerPoint presentation software) and in writing to the “Board of Directors”. The report should show the achievements of Years 3 through 7, with emphasis on the last year. It should compare actual performance against the Three-Year Plan. The Final Report should also evaluate the firm’s current strengths and future strategies. This requires quantitative proof (use ratios) that materials, work-in-process, manpower, etc. are available in Year 8 and beyond. Liquidation is not an acceptable strategy: Teams that have depleted their assets to make a short-term gain will be heavily penalized. The Oral portion of the Final Report is worth a possible 20 points, the Written portion of the Final Corporate Report is worth a possible 80 points.

## Suggestions for Final Report

1. The Written Report should be 20-40 pages plus exhibits, typed, double-spaced, with professional appearance and concise composition. The report should be complete and self-contained, without the need to refer back to the Three-Year Plan.
2. Include a Title page, a Table of Contents and number all the pages - including exhibits.
3. Discuss your firm's objectives, factors affecting choice of objectives, and how well objectives were achieved.
4. Discuss functional strategies used to meet objectives, whether the strategies succeeded, and why.
5. Discuss any methods you used or tried to use in making decisions as a group.
6. Prepare the following financial statements:
  - a. Annual Income Statements and Balance Sheets for Years 5 and 6 and 7 (not quarterly).
  - b. Annual Cash Flow Statements for Years 5 and 6 and 7 (not quarterly).
7. Compare actual results of Year 7 with projections from the Three-Year Plan, for both the year-end Balance Sheet and the Income Statement for the full year. Show variances in the following form:

<u>ITEM</u>	<u>PROJECTED</u>	<u>ACTUAL</u>	<u>% DIFFERENCE</u>
Cash	\$ 220,000	\$ 227,679	+3.5%
Securities	150,000	-0-	
Accounts Receiv.	2,886,000	2,051,489	-28.9%
--etc.--			

Explain any variances greater than 25% in either direction.

8. Give future plans. Pro-forma statements are optional. Discuss changes you would make if you were to play the game again: strategy, management, finances, marketing, etc.

**IMPORTANT:** The final corporate report should require very little "new" material. The objective is to present the results achieved by your Team during the final year. Discuss the mistakes. Please be precise and concise in your writing. The Oral Final Presentation is an important part of the Team grade, and PowerPoint presentation software must be used. Use exhibits that the class can follow and be creative in communicating. The presentation should last about 15-20 minutes, and all Team members must participate. There is no "Team Spokesperson." Please dress as a business professional appearing before their Board of Directors.

## Team Game Scores

Final scores for each Team are calculated at the end of Year 7 based on actual results in the six performance criteria and the weights assigned by each Team. The highest possible overall raw score is 100 points if the same Team finishes first in every measure of performance. The lowest Team will normally be in the range of 50 to 60 raw scores. Final Team scores will be provided at the end of the game: the raw points are multiplied by 200 to produce the net points available to team members.

For ROA, ROE, MS, SP, and TNI the following formula is used for calculating the results:

$$V = (M - [(L1 + L2)/2]) * (40 / (H1 - [(L1 + L2) / 2])) + 60$$

For UPC:  $V = (M - [(H1 + H2)/2]) * (40 / (L1 - [(H1 + H2) / 2])) + 60$

Where:

- M = Criteria Measurement for your Team
- L1 = Lowest Criteria Measurement for Industry
- L2 = Second Lowest Criteria Measurement for Industry
- H1 = Highest Criteria Measurement for Industry
- H2 = Second Highest Criteria Measurement for Industry
- V = Criteria Value

## **Exams**

There will be two “closed book, no notes” exams held in class. Each exam will cover about half of the chapters covered plus other material discussed in class sessions. There are 80 possible points for each exam. This is an Individual Exam – not a Team project. You will need a Scantron form and a Blue Book. Each exam is given in two parts: a multiple-choice section at the beginning of class and an essay section during the second half of class.

## **Case Write-Ups**

Each Individual (this is not a Team project) will read, analyze and write a two page paper on each of five cases. These cases will be discussed in class. The five case write-ups will not require additional work outside the text: read the case, perform your analysis, and then write the two page paper. Each of these five papers has 20 possible points for each Individual student, for a possible 100 total points. Case reports are due at the beginning of the classes (see schedule below).

## **Quizzes**

At the start of 10 classes, there will be a quiz covering the assigned readings including cases. Each quiz is worth a possible 10 points for a total possible of 100 points for quizzes. There will be no make-up quizzes if you miss class for any reason. Note: students who then leave class immediately after taking the quiz will receive **zero** for the quiz.

## **Team Member Evaluation**

*Team members evaluate each other's contribution (including their own) to the Team effort. Your professor will provide further instructions and will provide a form for this evaluation.*

## **Individual Team Member Scores**

Each Team member's individual share of the total points earned by the Team is computed by multiplying the Team scores for the Game, Three-Year Plan, and Final Report by the peer rating for Individual student performance. This Individual's share of the Team points is added to the Individual's scores from the Case Write-Ups, the Midterm Exam and the Quizzes to obtain the final score/grade for each Individual student.

**Class Schedule – Mondays, 9:00am – 11:45am**  
**This schedule is subject to change during the semester (REVISED 26AUG08).**

<b>Week</b>	<b>Date</b>	<b>Written Assignment Due</b>	<b>Class Discussion</b>	<b>Textbook Reading</b>	<b>Comment</b>
<b>1</b>	8/25				Introductions; Team Formation; Game Lecture
<b>2</b>	9/1				<i>LABOR DAY</i> – No Class
<b>3</b>	9/8			Ch 1, 2	Quiz on Simulation Game
<b>4</b>	9/15	Case 12 Zune	Zune	Ch. 3	Quiz on Ch. 3
<b>5</b>	9/22		Exercise 1, p.128	Ch. 4	Quiz on Ch. 4
<b>6</b>	9/29	Case 9 Nucor	Nucor	Ch. 5, 6	Quiz on Ch. 5, 6
<b>7</b>	10/6	Case 17 Toyota	Toyota	Ch. 7	Quiz on Ch. 7
<b>8</b>	10/13	Three-Year Plan for Simulation			<i>EXAM 1</i> , M-C and essay
<b>9</b>	10/20		Exercise 3, p. 265	Ch. 8	Quiz on Ch. 8
<b>10</b>	10/27	Case 21 Sara Lee	Sara Lee	Ch. 9	Quiz on Ch. 9
<b>11</b>	11/3		All exercises, pp. 354-357	Ch. 10	Quiz on Ch. 10
<b>12</b>	11/10				<i>HOLIDAY</i> – No Class
<b>13</b>	11/17	Case 29 Foreign Suppliers	Foreign Suppliers	Ch. 11, 12	Quiz on Ch. 11, 12
<b>14</b>	11/24			Ch. 13	Quiz on Ch. 13
<b>15</b>	12/1				<i>EXAM 2</i> , M-C and essay
<b>16</b>	12/8	Simulation Final Report	<b>10:30am to 12:30pm</b>		Team Presentations