SEMANAS INTERNACIONALES
INTERNATIONAL WEEKS

An Introduction to Applied Sustainability in Business

Tutor: Jonathan T. Scott

EADA

ESCUELA DE ALTA DIRECCIÓN
Y ADMINISTRACIÓN

PROGRAMME: International Week

SUBJECT: **An Introduction to Applied Sustainability in Business**

Professor:

Jonathan T. Scott is a business manager, an award-winning author, and an award-winning university teacher with over 20-years of work and management experience in nine different countries (successes include cost reductions of 40%, increases in profits of over 55%, three-fold increases in productivity, and three business turn-arounds).

Currently, he is the founder and director of the **Center for Industrial Productivity and Sustainability** (**CIPS**), a non-profit organization that produces free sustainability-based education and training materials for business schools, businesses, professional organizations, governments, and industrial zones.

CIPS also provides workshops, training and and educational programs that walk businesses (and their supply and distribution chains) through the first stages of waste elimination and resource-reduction (waste prevention) – while detailing how sustainable development enables a región to attract more businesses, facilitate job creation, and optimize profit growth without corresponding increases in major infrastructure.

To date, Scott has worked with the *United Nations* (UNFPA and WHO), the *Yueda Group* (China), *ECR Polska* (Poland), *Makro* (International), the *Condomerie*, the *Rotterdam School of Management*, *Audencia Nantes School of Management*, *Bradford University*, the *University of Perugia*, and several others.

Books:
The Sustainable Business *- 2nd edition (EFMD 2015)* -- available in English, Simplified Chinese, Polish, Mandarin, and Arabic.
The Sustainable Business WorkBook: Waste Elimination *(Greenleaf Publishing & EFMD, 2013)* -- available in English, Simplified Chinese and Mandarin.
The Sustainable Business WorkBook: Resource-Life Extension (EFMD, 2014) -- available in English, Simplified Chinese and Mandarin.
New Standards for Long-Term Business Survival *(EFMD, 2011),*
The Sustainable Business *(Greenleaf Publishing & EFMD, 2010),*
The Entrepreneur's Guide to Building a Successful Business *(MES Publishing, 2009),*
Managing the New Frontiers *(EFMD 2008),*
The Concise Handbook of Management *(Taylor & Francis, 2005),*
Fundamentals of Leisure Business Success (Taylor & Francis, 1998).

INTRODUCTION

Rises in human population, affluence and longevity are fueling continuous increases in the consumption of resources and raw materials. Adding to this problem are the increasing amounts of discarded materials and other forms of waste that typically result from rises in resource use. Indeed, up to 90% or more of the resources made available for human consumption are often wasted due to negligent practices and inefficiencies in business operations (e.g.: harvesting materials, product design, supply chain logistics, production and distribution) – all of which leads to further competition for the world's limited resource-supplies (as well as increases in pollution) and guarantees escalations in future costs (these costs include the expense of disposing physical waste, which has increased more than 400% over a ten year period).

But there is good news. A new industrial revolution is taking shape in the form of businesses that are learning to eliminate and prevent waste and do more with less in a bid to become more profitable and mitigate damage to the environment (i.e.: waste prevention). Examples include a subsidiary of the *DuPont* corporation, which achieved a goal of zero-waste to landfill, generated $2.2-billion in new revenue, and

reduced production costs by over $400,000. Meanwhile, *General Electric* reduced its annual costs by $100-million, generated an increase of $17-billion in yearly revenues, and eliminated 30% of its greenhouse gas emissions… and the world's largest manufacturer of carpet tiles (*Interface*) began eliminating its waste and using discarded materials to make new products. As a result, during the first five years of its commitment to do better, the company tripled its revenues, doubled its profits, doubled employment and saw the value of its stock price increase 550%.

The word used to describe this new business model is ***sustainability*** (defined as 'the capacity to continue into the long-term') and even small businesses are jumping onboard. For example, a *Subway* sandwich shop in Oklahoma (USA) reduced its costs by $20,000 by eliminating wasted energy. A family-operated bed and breakfast in Vermont (USA) added $10,000 to its annual revenues doing the same. And a mid-sized food market in California cut its annual energy costs by over $148,000. Combined, these cost reductions also had the effect of eliminating over 500,000 kilos of carbon emissions.

This is the future, but hard work and cooperation are needed to get there. In this course, students will learn how companies both large and small are increasing their chances of survival in the long-term by eliminating (and preventing) waste, reducing resource consumption, generating long-term wealth, and creating jobs… while solving the problems that stand in their way.

AIMS

Learning outcomes:

- An understanding of the definition of sustainability in terms of long-term wealth generation, job creation, waste elimination and prevention, and, resource optimization,
- Recognition and understanding of the importance of being able to identify, measure, analyze, and understand sustainability-based data and practices.
- Recognition and understanding of major resource-based, market-force trends that are currently impacting business directly and indirectly (particularly through suppliers and supply streams) and how they are redefining the way businesses compete.
- Recognition and understanding of the advantages of thinking and acting in the long-term versus thinking and acting in the short-term.

After completing the course, students should be able to do the following:

- Evaluate, synthesize and apply tools for implementing sustainable business practices.
- Implement sustainable business frameworks into their jobs and the programs they manage,
- Identify direct and indirect costs associated with waste.
- Estimate the value of identified sustainable practices (e.g.: the amount of money such practices can save and the amount of money they can make).
- Effectively identify and implement best practices to optimize the principles of sustainability.

TEACHING METHODS
(and the purpose of each method)

- **Seminar**
  a) presentation/explanation of key terms and concepts (with examples)

- **Case studies**
  a) Identifying and measuring various forms of measurement and waste in a business.
  b) Identification of different types of direct and indirect costs associated with waste.
  c) Introduction of activity-based costing to estimate waste expenses.
  d) Development of the ability to effectively identify and implement best sustainable practices in an appropriate context.

- **Class/group exercises (incl. 'dry runs' and layout/mapping of business models)**
  a) Development of the ability to identify and measure the benefits of long-term, sustainable business practices in terms of financial and social value.
  b) Development of the ability to evaluate, synthesize and apply financial measurement to enhance the cultivation and application of sustainable business practices.
  c) Development of the ability to plan and successfully conduct a basic waste assessment (in the form of energy savings) within a business.
  d) Development of the ability to work in diverse teams toward a common goal.
  e) Development of the ability to prioritize tasks and defend decisions.
  f) Development of the ability to produce viable cost estimates and assess work results.

- **Class discussion**
  a) Development of social competencies and an understanding of the need for group collaboration and input when identifying and applying sustainable concepts.

EVALUATION

Participants will be evaluated on the basis of:
Class participation: 25%
Exam / Final test: 30%
Group project: 45%

BIBLIOGRAPHY

All texts and reading materials (below) will be provided by the instructor.

The Sustainable Business - 2nd edition, by Jonathan T. Scott (EFMD 2015)
Available as a free download from **www.efmd.org** (click on '**research**' then click on '**The Sustainable Business**')

Profit-First Business Model Canvas (template)
Youtube tutorials:
'Business Model Canvas in 5 minutes'
'ZARA Business Model'

The Emirates Group: Environmental Report 2014-2015

The Seasoned Executive's Decision-Making Style by Kenneth R Brousseau, Michael J. Driver, Gary Hourihan, and Rikard Larsson (*Harvard Business Review*, Feb 2006).

Slow Ideas. Some Innovations Spread Fast; How Do You Speed the Ones That Don't? by Atul Gawande, (*The New Yorker - Annals of Medicine*, July, 2013).

CLASS SESSIONS

PROGRAMME: International Week

SUBJECT: An Introduction to Applied Sustainability in Business

SESSION	TOPIC	MATERIAL
1	- Introduction: What is Sustainability and its Mechanism? - The Importance of Waste Elimination: A Return to Efficiency - 7-P Sustainability Model - The importance of collaboration (with class exercise) - Profit-First Business Model Canvas (Introduction) - Discussion and group assignations	The Seasoned Executive's Decision-Making Style Profit-First Business Model Canvas template The Sustainable Business
2	- The Hidden History of Products - The Performance Economy: Closing the Resource-Loop by Turning Products into Services - Case Study - Group formalization	Emirates Airlines: Environmental Report 2014-2015 Profit-First Business Model template
3	- Buildings and Workplaces: Applying Sustainability in the Structures and Areas Where Work is Performed - Production Processes: Achieving Optimal Efficiency in Production Processes - Class/Group Exercise: Sustainability at EADA ('dry run') - Greenwashing	The Sustainable Business Profit-First Business Model Canvas template
4	- Mapping the Waste Elimination Process: On-Going Measurement and Record-Keeping - Cooperative Networking - Sustainability Obstacles: What the Reformer is Up Against - Group presentation dry runs (practice sessions)	The Sustainable Business Profit-First Business Model Canvas template
5	Final exam Group presentations	