Blue Marble University

B.B.S./M.B.S. Industrial Technology

Curriculum and Course Descriptions (4 Year Program)

This is a combined Bachelor of Business Science (BBS) and Master of Business Science (MBS) in Industrial Technology, covering the main global business technologies: Food, Oil, Water, and Transport Systems.

The program covers 4 years of three trimester sessions each year, and requires each student to complete a digital portfolio of his/her accomplishments, research and interests. Courses relating to the digital portfolio are named "Online Portfolio" in the following curriculum.

In this program, **courses are taken sequentially for approximately a 1 month period**. This allows for in depth consideration of the material. No credits for prior education or work are issued; each student must complete our full curriculum.

Because this is a new and exciting one of a kind program, few if any "standard" textbooks are available. The program relies heavily on trade journals, published reports, company Annual Reports, internet resources and training aids, as well as gust video lectures. Participation in free online training programs offered by industrial trade groups or companies may be required as part of a course.

This new kind of business program explores "real world" situations. It is offered to any high school graduate, although, those students who have done well in science and/or math will have the most fun with the program. After all, "business" is about numbers...

Years 1-2

Term	Year 1	Year 2
1	**Online Portfolio (1)**: Introduction to blogging and your online reputation. Students will establish the outline for their personal website and publish it to the internet for gradual revision and development **3 Credits**	**Food Distribution**: The state of the industry relating to distribution processes. The course includes consideration of import and export procedures and regulations regarding rice, wheat, corn and other commodities. **3 Credits**
	Financial Accounting (for non-accountants): Course introduces the basics of business accounting **3 Credits**	**Food Storage**: A discussion of all the different types of storage techniques relating to different food and commodities. The course also covers global food supplies and what the future holds for food shortages. **3 Credits**

Term	Year 1	Year 2
	Information Systems (IT): The course introduces the kinds of data businesses have, how it is managed, including a survey of data base software, and Personnel Management records **3 Credits**	**Online Portfolio (2)**: Research Project. This segment requires a research project to be completed and published to the student's online website. Updating and development of the student's digital portfolio are stressed. The subject of the project will be determined jointly by the student and faculty and must demonstrate the student's writing ability and mastery of a topic. **3 Credits**
2	**Internet Business Research**: The student will master using the internet to locate trade journals, annual reports, industry specific information and data. **3 Credits**	**Water Resources:** What they are, who has them, and how control is effected. This course necessarily relates to natural water resources. The course introduces the business of water. **3 Credits**
	Reading Financial Statements: No where can more information about a company and its business be found than by studying annual reports. The course covers how to find annual reports, and how to analyze the information presented, particularly with respect to business operations, financial strength of the company. Companies involved in Oil, Water, Food, and Transport will be emphasized. **3 Credits**	**Water Chemistry**: The properties of water, including natural and artificial additives, and contaminants. Testing and analysis procedures. **3 Credits**
	Business Law: Contracts and the UCC, including Bills of Lading: The course covers business law basics with emphasis on contracts **3 Credits**	**Water Production and Filtration Technology**. Manufacturing processes and filtration technologies. **3 Credits**

Term	Year 1	Year 2
3	**Human Resources**: The course covers personnel practices, and state and federal safety regulations and labor law. The purpose of the course is to prepare graduates for management positions as well as company entry level positions. One of the easiest ways for a graduate to enter an industry is via employment in a company's personnel office. **3 Credits**	**Saltwater Separation**: the production of water from the sea. Large scale facilities are studied and possible new approaches are investigated. Also reviewed is the means of obtaining water from glaciers, the north and south poles. **4 Credits**
	Food Technology: An overview of quality control practices and manufacturing processes. **3 Credits**	**Wastewater:** The water nobody wants. How to treat it using chemical and biological methods. How to get clean water from waste water. A review of companies engaged in this field, as well as the consideration of cost analyses, and the new technologies. **4 Credits**
	Food Preservation and Packaging: Kinds of packaging and preservation techniques with emphasis on meats, seafood, vegetables,including costs analyses. **3 Credits**	**Colloquium and Independent research**: We pull together the concepts previously covered and the student conducts literature investigation or field exercise in some aspect of interest, for publication on his/her digital portfolio. **4 Credits**

Continued below...

Years 3-4

Term	Year 3	Year 4
1	**Online Portfolio (3):** The student is guided in connection with both the procedure for citing publications and sources, as well as review and updating of the Online Portfolio. In this segment we concentrate on video and audio techniques to refine the portfolio, make it exciting to visit, and how to give it a professional look. **4 Credits**	**Big Oil:** An outline of this massive global industry that is still making ordinary people wealthy is presented. Topics covered include: the basics of oil and gas production from reservoir to sales point; common terminology for equipment; basic oil and gas field concepts, the wellhead and other equipment. **4 Credits**
	Global Transportation Systems: Overview and identity of trade journals **4 Credits**	**Oil and Gas Transport:** Transmission and processing. **4 Credits**
	River Transport: Moving goods on the major international and domestic rivers **4 Credits**	**Oil Chemistry**: A massive topic, we focus on the business aspects and companies involved in producing products from oil and gas. **4 Credits**
2	**Modern Railroading (1):** The systems, the new technologies, the biggest lines, international and domestic. **4 Credits**	**Oil Reserves and Sales:** How oil is sold internationally, the "price of a barrel" of oil, oil as a commodity. **4 Credits**
	Modern Railroading (2): Cross border connections, oil shale and oil products, foods, and cargo. **4 Credits**	**Shale oil and Fracking**: An exploration of the technique and controversies. **4 Credits**

Term	Year 3	Year 4
	Ocean Shipping: Includes tanker shipping and leasing. The purpose of the course is to investigate the special language and procedures involved in this industry, including insurance issues **4 Credits**	**Clean Coal Processing**: The techniques for extracting oil and energy from coal. A comparison of costs of processing oil and coal is made. **4 Credits**
3	**Air Cargo**: What can and can'r be shipped. Methods of shipping and packaging for shipping. **4 Credits**	**Colloquium**: A discussion and study of a current topic of interest within the oil industry **4 Credits**
	Shipping Paperwork and Freight Forwarding: The business of International and cross-border freight forwarding is presented. **4 Credits**	**Oil and Gas Careers:** Where the jobs are what kinds of jobs are available is presented. This course explores this topic from the business side of the oil industry through a review of the major players and study of annual reports **4 Credits**
	Independent Study Project: With guidance from the faculty, the student will prepare a research paper on some topic involved in global transportation. This will involve internet based research into the business of global transportation and a polished, professional presentation of findings and results. **4 Credits**	**Online Portfolio (4)**: Similar to a "masters thesis", the student, with the guidance of the faculty, puts the finishing touches on their digital portfolio. A final research paper will be required for inclusion in the final Online Portfolio. **4 Credits**

CREDITS: The program consists of 120 trimester credits, of which 48 trimester credits are allocated to the Masters Degree. In the US system, 1 trimester credit is the equivalent to 5/6 semester credit. Consequently, for the Masters Degree portion of the program, 48 trimester credits is equal to 40 semester credits, which is more than the 36 semester credits normally associated with a Masters Degree. Your transcript will state this.

Our Masters Degree is designed to be equivalent to that of a regionally accredited USA college or university, and graduates can obtain a report of equivalency from a foreign credential evaluation service approved by the USA Department of Education.