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The Ancient Mayan Civilization

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Course Reflection

July 13, 2008

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Math and Architecture of the Ancient Mayan Civilization

December 21, 2012: doomsday or misunderstanding? In recent news, the Mayan civilization is best known for their prediction of the end of world. However, the truth is that the Mayan people are better known for much more, including their grand temples engineered to perfection or their calendars which were more accurate than our calendar today. This course specifically focuses on the many marvels of the ancient Maya, and more generally, on the math and architecture of the ancient Mayan civilization. Some of the most important goals of the course include learning the methologies necessary to investigate ancient civilizations and open-ended questions, developing skills such as teamwork and communication, and gaining an appreciation for diversity, especially that of the ancient Mayan culture. Upon completion of the course, I have gained more knowledge about my major, the skills necessary to effectively work in a group, and a greater appreciation for diversity.

After studying the ancient Mayan civilization, I have gained a greater knowledge and appreciation about my major. Majoring in biomedical engineering, many people may have a difficult time trying to connect the skills learned in this course to my major, but I feel learning about the ancient math of the Mayan civilization has more in common with my major than most people would initially realize. The engineering curriculum is full of math and science courses, and in addition, I also minor in mathematical sciences. After studying the ancient Mayan civilization for more than ten weeks, it has become obvious that these people were highly skilled mathematicians. For example, the Mayans were one of the first civilizations to include the zero in their numbering system. They could add, subtract, multiply, and divide with precision. The Maya’s grand temples that still stand today are proof of their skill at math and engineering. Learning about the math and engineering of the ancient Mayan civilization has provided me with a greater understanding and appreciation for my major today.

Not only has this course provided me with more knowledge about my major, it has also provided me with the skills necessary to effectively work in a group setting. One of the most challenging aspects of the course was the problem-based learning (PBL) assignment. Within this assignment, small groups were required to answer several open-ended questions. Therefore, teamwork was essential to successfully completing the PBL assignment. Each member of the team was responsible for a specific topic within the Mayan civilization. For example, I researched the everyday life of the Mayans with a focus on religion, sacrifice, and government, whereas other members of the group focused on math, architecture, and the different periods of the Mayan civilization. The ability of each team member to conduct his or her individual research and then combine all of our unique thoughts and ideas together required a lot of teamwork and communication, oral and written. In order for the group to stay on task, we created a Gantt chart, which included each group member’s responsibilities and the due date of each task. Through communication tools, such as the Gantt chart, I was able to successfully perform my tasks and responsibilities gaining the skills necessary to work as an effective member of a team.

By working in a group setting throughout the course and traveling the world through the capstone experience, I gained a greater appreciation for diversity. When working with my group during the quarter, each member of the group had a different major and background. At first, I thought the PBL assignment would be a more difficult task when working with such diversity. However, by the end of the quarter, I truly gained an appreciation for the diversity of the group because it made the group that much better. For example, at the end of the ten-week quarter, each group was required to present their work with only one stipulation: no PowerPoint presentations were allowed. Therefore, we had to work as a group and use our creativity to think of a way to present our group’s work without using a PowerPoint presentation. Because of the diversity of the group, we thought of a wonderful way to present our research of the Mayan civilization using Google Earth, an idea I never would have thought of on my own. A week after our presentations, we finally took the trip to Mexico to experience the beauty of the Mayan people, firsthand. The trip to Chiapas was truly a life-changing experience. Having never left the country before, I was unsure as to what to expect. However, now that I have that experience I appreciate and respect the diversity of the Mayan culture, ancient and current. These are just a few examples as to how this course has increased my appreciation for diversity.

In conclusion, this course and the capstone experience to Chiapas, Mexico was an once-in-a-lifetime experience that I will never forget. Not only did I learn about the math and architecture of the ancient Mayan civilization throughout the ten-week quarter, but I also developed the skills necessary to answer open-ended questions, effectively work in a team, and understand and appreciate diversity. Unlike other courses I have taken, which only teach the basics and fundamentals necessary to successfully complete the course, the PBL assignment pushes students to think outside the box and push their boundaries. Not only does each student learn the material, but the course connects the past, the current, and the future for an unsurpassed learning experience. This course has opened my eyes to the world!