Raster-Based Geographic Information Systems (RBGIS) Syllabus 2022-23

Instructor: Mr. Bain   **Email**: fbain@houstonisd.org **Room**: 3200

Office Hour: Office Hours: Monday (4:10pm-5:00pm) & Wed/Fri (1:05 pm-2:35 pm)

Welcome to your Raster-Based Geographic Information Systems (GIS). The purpose of this course is to provide instruction to the student in order to earn high school credit. Upon completion, the student should be able to apply the Project Management Model (PMM) process to execute a thorough and successful geospatial project.

About Office Hours

During office hours, I will sit down and go through and answer emails and other communication from the class. This will also be a time when I will be available for face-to-face/virtual meetings. When sending emails, please be as descriptive as possible, for me to understand your question or problem. Please allow 24 hours for my reply. I can also be available for tutoring on Monday's if you make an appointment with me ahead of time. Keep in mind; that office hours are in additional to my regular conference periods (4th and 5th) where I also can respond to emails or other inquiries.

Course Description

This course introduces advanced principles of GIS data sets including raster-based information such as images or photographs. This course Students will study local problems and acquire information. Students will plan, conduct, and present solutions for locally based problems while working with the private sector businesses and local government.

This course is an integrated-based approach to task-based, business problem-solving using various technology solutions such as productivity software products, the Internet, and free applications. Students will be challenged to use appropriate technology skill sets, while also learning additional skills working on real world business projects. Students will complete the course with a e-portfolio of their work, which can in turn be used in the job search process.

This course is divided into four units, which you will go through in order. The units are:

Unit One   Advanced GIS Mapping
Unit Two   Project Management—Phase 1—Planning
Unit Three   Project Management –Phase 2--Implementation
Unit Five   Project Management --Presentation

Course Objectives

Upon completion of this course, you will be able to
1. Use GIS software to create maps and to perform analyses.
2. Apply Project Management Model to solve a real-world problem using GIS.
3. Solve business, task level problems using integrated technology solutions.
4. Differentiate among available software tools to efficiently resolve issues presented.
5. Explain business related problems and possible alternatives using technology solutions.
6. Diagram solutions to scenarios
7. Plan appropriate use of tools to implement solutions.
8. Deliver high quality solution components using appropriate technologies.

Class Policies

- **Attendance Requirements**

You are expected to do the following to meet attendance requirements during the online experience:
- Attend class.
- Login to Canvas, daily for announcements and to check the course assignments.
- Actively work in Canvas [daily] by completing and submitting all assignments by the deadline.

- **Assignments**

All assignments are due by the due date. I will post assignments with dates due in Canvas and discuss assignment specifics during our live classes. I will also send out reminders via Remind. Assignments will be considered late if not submitted to me in the designated time period. Ten points will be deducted for each day an assignment is late. Assignments more than three days late, will not be accepted, and will receive a zero

- **Missed Classes**

 You (the student) are responsible for obtaining material distributed and for making up work done in class when you are absent. You must make prior arrangements with me if you need to make up a test or quiz or if you need extra help.

Academic Dishonesty:

Plagiarism and cheating are serious violations of school policy and will not be tolerated. Cheating on a test or assignment will result in grade of a zero and can lead to failure of the class.

- **Course Rules, Expectations, and Standards**

I will expect you to participate in all discussions when directed to do so. Be respectful and courteous to all students involved in the discussions. Foul or abusive language will **NOT BE TOLERATED!**

Grading Procedures

Each item submitted will be graded as acceptable or unacceptable. Unacceptable assignments and those that need improvement will be returned with suggestions and must be redone by the deadline. Acceptable assignments will be graded.

Your grade in this course will be calculated by the following:
• Daily (Daily Assignments, Homework, Minor Checkpoints) 40%
• Participation (Work Ethics, Canvas Activities, Participation) 20%
• Major (Major Assessments) 40%

Textbook and Supporting Materials

• There is no state adopted textbook for this class. We will use a variety of Web resources during this class. Much of the Web lessons are provided by Esri.com on their cloud-based ArcGIS platform. Printed texts are provided by Digital Quest. You will link to the lessons by accessing the lesson and resource links in your course. I will make assignments available a few days prior to the week assigned so that you may work ahead if you like.
• Needed Supplies and Materials: One (1) – 5 Subject Spiral Notebook and Blue or Black ballpoint pens for taking notes.

Classroom Management

School policies will be enforced. In addition, students will be expected to:

1. PRACTICE GOOD MANNERS AT ALL TIME. Respect yourself, your classmates, and teacher. Absolutely, no talking or getting up while the teacher is talking, or the class is engaged in whole-group instruction or activities.
2. BE ON TIME. Students should be in the classroom and in their seats when tardy bell rings.
3. BE IN PROPER DRESSCODE. You are required to have your pants pulled up, ID on, and in appropriate approved attire before you enter the classroom. Please check yourself before crossing the threshold.
4. BE PREPARED FOR CLASS. Please bring all materials and supplies to class every day.
5. BEGIN WORK IMMEDIATELY. Upon entering the class, each student is expected to look at his/her Weekly Assignment Sheet and/or board; then proceed with preparations for the day's work. For example, take out binder, pen, flash drive, and other materials as needed.
6. KEEP YOUR WORK AREA NEAT AND CLEAN. Your workspace must be free of clutter

and hazards. Place backpacks, purses, and other items not needed for this class in the assigned storage area.

7. TURN IN WORK ON TIME. Due dates on assignments will be followed strictly.

8. USE ASSIGNED COMPUTER. Under no circumstances can the student move to another computer without permission from the teacher.

9. LISTEN CLOSELY AND FOLLOW DIRECTIONS.

10. CLEAN AROUND WORKSTATION AND RETURN ALL MATERIALS ABOUT FIVE MINUTES BEFORE END OF CLASS.

11. YOU ARE DISMISSED BY THE TEACHER AND NOT THE BELL. Please remain seated until dismissed by the teacher.

12. FOLLOW SCHOOL RULES AND ALL OTHER CLASSROOM RULES AS STATED AND/OR POSTED.

Modification/Change: Course Schedule and Lessons are subject to change to meet the needs of all students