

Pathways: Computer Magnet Capstone

Course Description and Expectations

Instructor: Mr. Fornstrom

Credit: 5 Semester Hours

Prerequisite: Completion of all classes in one of the Computer Magnet strands (Software Engineering, 3D Design, Web Design).

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INSTRUCTOR BIO

I have taught in the TJ Computer Magnet program for 11 years. I graduated from the University of Wyoming with a B.A. in Accounting and from Texas A&M with a M.S. in Management Information Systems. Prior to teaching I worked as an accountant and a computer consultant for businesses.

COURSE DESCRIPTION

Students will gain skills in applied Information Technology through building professional relationships with industry experts, personal entrepreneurship, PMI project management, strategic long-term planning and community service.

FEES

There is a \$40 fee for this class that will be used for software, student supplies, and membership in the TJ Computer Magnet club of their choice (Skills USA, Computer Design club, Video club, or Photo club). The class fee will cover both semester 1 and semester 2. Please turn the money in to Mr. Fornstrom by **Friday September 2, 2011**. Checks should be made payable to **Thomas Jefferson High School**.

CLASS RULES AND PROCEDURES

Please refer to the attached Computer Magnet class rules for details of the behavior and procedures that will be followed in class.

MAKE-UP and LATE WORK

Excused Absence: The student will be allowed one day for each day absent, plus one extra day to make up work and tests missed.

Unexcused Absence: The student receives a grade of 0 for any work missed as a result of an unexcused absence.

Late Work: I realize there will be times when unforeseen circumstances (particularly with computers) make it difficult for work to be completed on time. If the student attended class but was unprepared with their assignment, they can turn the work in the next day for a maximum of 50% credit. No credit will be given for work turned in more than 1 day late. Please plan for the unexpected when completing assignments so that there is ample time to complete all work on time.

LAB & OFFICE HOURS

The computer lab is open every day from 7am to 3pm for student project work. Mr. Fornstrom is available in the lab from 7am to 3pm. Please contact him to schedule an appointment or additional lab time.

GRADING

Grading will be based upon project work and participation points. Students will be graded on their ability to create and execute a plan for their project, as well as project quality. For team projects, each team member will earn both an individual grade and a group grade.

PARTICIPATION POINTS

In order to become proficient with computers, students need to work and practice with computers. To encourage this, 3 participation points are available each class day for being here, on-time, and on task. If a student has an excused absence they may come in and make-up the computer work to receive the days participation points. Points lost for unexcused tardies or absences may not be made up. Points lost for inappropriate computer use (such as playing games or surfing the web during class time) may not be made up.

GRADING SCALE

90-100% = A

80-89% = B

70-79% = C

60-69% = D

Below 60% = F

Overall Learning Outcomes

To develop advanced skills in:

- Project Management
- Personal Development
- Entrepreneurism
- Professional Networking

Specific Learning Outcomes

- Understand and apply the 9 knowledge areas of PMI project management
- Develop and maintain a mentor/mentee relationship
- Develop and implement a post-high school Strategic Life Plan
- Develop and implement a personal entrepreneurial enterprise
- Develop and maintain professional relationship with industry experts
- Demonstrate community leadership

Assignments and Evaluation of Student Performance

- Submit a PMI Project Notebook as entry to the Project of the Year for the Mile High Chapter of PMI
- Research post-secondary options and develop a post-graduation plan. Tasks include:
 - Career research
 - College research
 - College applications
 - Scholarship applications
- Develop and deliver 4 business products as a result of a personal entrepreneurial enterprise
- Create and maintain a client/contact database
- Develop and maintain a website devoted to your entrepreneurial business. Include:
 - Logo
 - Branding
 - Marketing
 - Sales
- Develop and implement a community service project focused on middle schoolers
- Post-secondary planning
 - Career research
 - College research
 - College applications
 - Scholarship applications

Weekly Course Topics:

Week	Topics
1 - 3	Course Overview Senior Web Portfolio – DUE Friday September 16 Design and create the site layout for Senior Web Portfolio. Add exemplary projects from prior year classes to the portfolio.
4 - 6	Community Service Project Ideas: Posters for Hamilton Computer Lab Posters/brochures for TJ Computer Magnet Recruiting websites for TJ Computer Magnet (example: TJ game website) Sports websites
7 & 8	HW: Brainstorm semester projects, form project teams, create team name, create team logo, team notebook with 9 sections. Assignment #1 DUE Semester HW: Website for team, project notebook for team, technology projects with an entrepreneurial focus. Content: 5 process groups: initiating, planning, executing, monitoring and controlling, closing; 9 Knowledge areas (see notebook sections), stakeholders
9	Scope Planning & Scope Management; Project Charter Assignment #2 DUE
10	Time Management: Defining work activities, creating Network Activity Diagrams Post-secondary planning: Letter of recommendation request form
11	Time Management – task scheduling, create Gantt chart in Excel Post-secondary planning: Rough-draft of college essay
12	Project progress report, Project review Post-secondary planning: Rough-draft of resume
13	Update Gantt chart for 2 nd 6 week plan Post-secondary planning: Version 2 of college essay, resume, list 5 colleges to apply to
14	Project Work Post-secondary planning: final draft of college essay, review with Ms. Rocha
15	Project Work – Thanksgiving week
16	Risk Management Post-secondary planning: request teacher recommendations, apply to 1 school
17	Cost Management, Procurement Management
18	Project progress report, Project review Project presentations to class Final Exam

Week	Topics
19	Update Gantt chart for Semester 2 plan Post-secondary planning: request teacher recommendations, apply to 1 school
20	Resource Allocation
21	Communication Management → project reporting and termination
22	Human Resources Management
23	Integration Management
24	Project progress report, Project review