

## **Pathways – Week 1**

### **Objectives:**

- Introduce class.
- Log on to Server.
- Create seating chart and review class rules.
- Review syllabi and course content.
- TA's – if anyone wants to be a TA, talk to Mr. Fornstrom & Ms. Catalano.
- Complete Assignment #1.

**Course Overview and Description:** The **Computer Magnet Pathways** class is a capstone course for the program. We receive assistance from the Project Management Institute; including instructors, speakers, and scholarships. The course follows project management principles used by PMI. 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.

### **Topics for Semester:**

A **Project** is a temporary endeavor undertaken to create a unique product, service or result.

- **Temporary** means having a defined beginning and end.
- **Unique** means that the product or service is different in some distinguishing way from all other products or services.

The PMI structure has **five process groups** and **nine knowledge areas** for managers to use as a framework in planning projects. Each week the Pathways class focuses on one of these and applies it to student projects.

### **5 Process Groups**

1. Initiating – defines and authorizes the project.
2. Planning – defines and refines objectives; plans actions required to attain the objectives.
3. Executing – Integrates people and other resources to carry out the plan.
4. Monitoring and Controlling – regularly measures and monitors progress to identify variances from the plan so that corrective action can be taken when necessary.
5. Closing – formalizes acceptance of the project and brings the project to an end.

### **9 Knowledge Areas**

1. Integration Management
2. Scope Management
3. Time Management
4. Cost Management
5. Quality Management
6. Human Resource Management
7. Communications Management
8. Risk Management
9. Procurement Management

## Computer Magnet – Pathways

### Assignment #1 - Defining the Scope of semester projects

#### 10 points

The focus of the Pathways course is for students to apply the technology skills they have to entrepreneurial projects of their choosing. The first step in this journey is to define projects that you would like to work on for this class.

**Step 1:** Look at the website for the class.

<http://www.fornstrom.tjcomputermagnet.com/pmihs/index.html>

Pay extra attention to the **Scope** section (found on left-side of page). Read the **Slides** and **Homework** sections of **Scope**.

**Step 2:** Begin defining technology projects that you would like to work on in this class. At this point, don't concern yourself with whether your idea is realistic, we are interested only in compiling ideas. You can work in teams of two for your projects.

**DUE Friday**, start of class: Turn in a list of ideas for technology projects to work on in the class.

#### **Student Projects from Prior Years:**

- Computer Magnet Recruiting Materials: due 10/20.
  - Recruiting video
  - Flyers
  - Posters to place in middle school technology rooms
  - Direct-mailings
- Technology mentor for a teacher
  - Help with websites, PowerPoint, or any other technology ideas that a teacher is interested in learning more about.
- Website design.
- Website with games that students designed and built.
- Design and build a super-computer for the computer magnet.
- T-shirt design and sales.
- Educational interactive website about natural disasters. Will include 3D models, a 3D globe, and quizzes.
- Create an interactive website for the TJ Arts programs (Drama, visual arts, choir, poetry, etc.).
- Promotion of the Colorado Starlites, a drumline. Create a website, t-shirts, posters, and flyers with the goal of getting more performances for the drumline.
- A digital recruitment company that produces CM recruiting materials, t-shirts, Flash ads, flyers, digital videos.
- A website and recruiting videos for college athletic hopefuls to aid students in getting college athletic scholarships.

#### **3D Design Ideas:**

This year will be the first group that has taken all of the 3D design classes. The class is structured so that you can use Mr. Esparza's lab for the 3D work. Mr. Esparza is a co-teacher of the class and will be available to help with 3D and web questions. Some ideas that we have for 3D projects include:

- 3D Demo Reel of student work. This can be one of multiple projects that 3D students work on. The final demo reel will be put together with Final Cut. The demo reel would include the following 3D principles: animation, texturing, lighting, rigging, detailing, painting, fluid motion, story elements, other concepts you would like to demonstrate.

- An online portfolio of your work. Students will create a website to host the portfolio and create new 3D projects to post to the site. Students can use the 3D lab to create the 3D assets. Make an area of the site that allows people to buy your designs.
- Skills USA practice; complete mock-up runs of prior year Skills USA contests so that you can practice for this years contest.
- 3D animations to use on the Spartan Edition. An example might be an animation that runs during Halloween week.

Students are encouraged to include an entrepreneurial aspect to their projects (if possible). This means you are encouraged to get paid for some aspect of your work or donate your skills to a non-profit cause (inside or outside of school). An example of an entrepreneurial aspect is the creation of a website for TJ DECA or the TJ Counseling website. Students that created these websites worked with faculty outside the Computer Magnet program to define the project requirements and acquire resources to be used in the sites. The final product approval also came from people outside of the Computer Magnet.

○ **Pathways - Week 1 - Friday**

**Question of the Day:**

What company is the following logo associated with?



What company has a motto of "Just do it!"?

**Today's Objectives:**

- Turn in **class fees** and **signed class rules**.
- **Turn in Assignment #1** – list of projects that your company would like to work on.
- **Assignment #1 Presentations** → Overview of your team and project ideas, plans for the next couple of years following high school graduation.
- Discuss **Company Branding**: Logo, Motto, Forms (letterhead, order form), web site, multimedia ad.
- Go to internet site: <http://www.pmihs.com/>
  - From the Course Menu, choose **Intro > Slides**
  - Read the slide show.
- Answer open questions

## **Pathways – Week 2**

### **Objectives:**

- **Class Fees** → turn in to Mr. Fornstrom
- Go to internet site: <http://www.pmihs.com/>
  - From the Course Menu, choose **Intro > Slides**
  - Read the slide show.
- Magnet Recruiting RFP  
Map Network Drive → Win Explorer > **Tools > Map Network Drive** > type [\\tjhsnt01\Shared](#)  
**\RFPs\“07 Recruitment Campaign.doc”**
- Set up team notebooks. You can leave the notebooks in Mr. Fornstrom’s room.
- **Notebook sections** = Executive Summary, Scope, Time, Cost, Quality, Human Resources, Communications, Procurement, Risk, Integration
- Weekly assignment.
- After completing assignment, work on group & individual projects.

### **Assignments: DUE Friday, start of class (25 points)**

- Notebook with Sections
- Team Name
- Team Logo
- Team Motto / Slogan
- Community Service projects → have 1 idea for a class or individual project.

## **Pathways – Week 3**

### **Objectives:**

- **Class Fees** → due this week! Turn in to Mr. Fornstrom
- Review questions from <http://www.pmihs.com/> **Intro > Slides**
- Presentation → “PM Intro HS.ppt”
- Weekly assignment.
- After completing assignment, work on group & individual projects.

### **Assignments: DUE Friday, start of class (15 points)**

- Scope Statement (5 pts) → follow example at [//www.pmihs.com/](http://www.pmihs.com/) **Scope > Homework**
- Project Charter (10 pts) → Use template at <\\tjhsnt01\Shared\Pathways\Templates\TJHS Project Charter Template.doc> → place Charter in **Integration Management** section of notebook.

## **Pathways – Week 4**

### **Objectives for the Week:**

- **Introduce Time Management**
- [www.pmihs.com](http://www.pmihs.com) → Choose **Time** > **Slides** → read the slides for **Tuesday**
- Activity Definition – Is the process of taking the Work Breakdown Structure (WBS) and identifying the specific schedule activities needed to be performed in order to produce the various project deliverables.
- Weekly assignment.
- After completing assignment, work on group & individual projects.
- Next Week → Gantt Charts

### **Assignments: DUE Friday**, start of class (10 points)

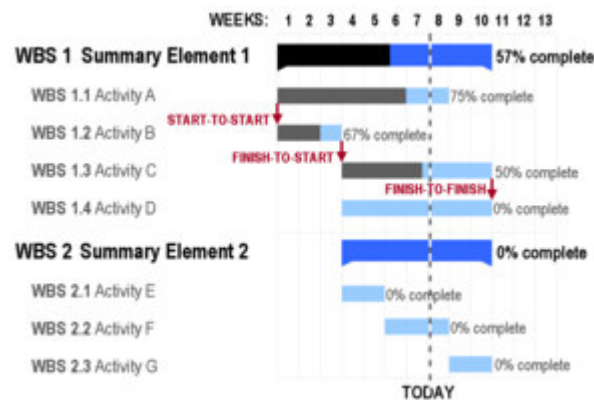
- **Network Activity Diagram** → Activity Definitions & Sequence & Time Estimates  
→ print & place in TIME section of notebook.
- Examples for Network Activity Diagrams (Network Diagrams)  
<\\tjhsnt01\Shared\Pathways\PriorStudentExamples\NetworkActivityDiagrams>

## Pathways – Week 5

### Objectives for the Week:

#### Time Management – Create a Gantt Chart:

- [www.pmihs.com](http://www.pmihs.com) → Choose **Time** > **Slides** → read slides 27-28 again.
- **Milestone Charts** – Similar to bar charts, but only identify the scheduled start or completion of major deliverables and key external interfaces.
- **Gantt Chart** – is a popular type of milestone chart that illustrates a project schedule. Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a project. Terminal elements and summary elements comprise the Work Breakdown Structure of the project. Some Gantt charts also show the dependency (i.e., precedence network, like the Network Activity Diagram) relationships between activities. Gantt charts can be used to show current schedule status using percent-complete shadings and a vertical "TODAY" line (also called "TIME NOW" or "DATA DATE"), as shown here.



[http://en.wikipedia.org/wiki/Gantt\\_chart](http://en.wikipedia.org/wiki/Gantt_chart)

### Assignments: **DUE Friday**, start of class (10 points)

- **Gantt Chart** → Use Excel to create a Gantt Chart. Place in **Time** section of Notebook.
  - **Include:** Summary Elements, Activities, Resources, Time Estimates in 2-Week Time Increments
  - Examples of Gantt Charts:
    - Time > Homework > Pathways Club-Time**
    - <\\tjhsnt01\Shared\Pathways\PriorStudentExamples\Gantt>
- After completing the assignment, work on group & individual projects.

## **Pathways – Week 6**

### **Objectives for the Week:**

#### **1. Ms Catalano – Begin the College Planning process**

- Register for ACT/SAT (she'll talk about deadlines and how to register) **ACT.org** for ACT test; **collegeboard.com** for SAT test.
- Personal Data Sheet – **DUE Wednesday**  
<http://www.tjournal.com/> > Counseling > Personal Data Sheet
- Resume – Rough draft **DUE Friday**
- College Essay – Rough draft **DUE Friday**

### **Useful Sites:**

<http://www.collegeboard.com/student/apply/essay-skills/index.html>

→ Suggestions for writing a college essay, samples, and tips.

<http://teenink.com/CollegeEssays/index.php>

→ Sample college essays.

<http://www.adventuresineducation.org/HighSchool/Jobs/SampleResumes/index.cfm>

→ Sample resumes and templates.

<http://www.ecampustours.com/collegeplanning/applyingforcollege/highschoolresume.htm>

→ Suggestions for writing a high school resume.

#### **2. Project Progress Update for the 1<sup>st</sup> 6 Weeks. Prepare the following:**

##### **DUE Wednesday**

- **Positives** – list aspects of the project that went well during the 6 weeks. What were the best accomplishments? What exceeded your expectations?
- **Needs work** – what project areas were most troublesome? What improvements will you make to these areas?
- **Self Grade** – on a 100-point scale, what grade would you assign your group for the 6 weeks?
- **Preview** – which project areas will you spend the most time on over the next 3 weeks?