### Work Products and their Learning Objectives

<table>
<thead>
<tr>
<th>Coursework Item</th>
<th>Learning Objectives</th>
<th>LIS Program Objectives</th>
</tr>
</thead>
</table>
| HW1: Understanding Computer CPU, RAM, and Hard Disk | - Calculate the speed of RAM and hard disk in processing data  
- Compare the speed and storage capacity of RAM and hard disk  
- Define the storage hierarchy | 2.4 |
| HW2: Finding Authoritative Information on the Web | Master techniques for finding and verifying information on the Web:  
- Exploring hyperlinks contained in a Web page;  
- URL trimming  
- Domain name lookup  
- Traceroute | 1.1  
2.4  
3.5 |
| HW3: Creating a Simple Personal Web Page | - Master the basic syntax of HTML, including defining document structure (title, heading, paragraph, etc.), creating hyperlinks, embedding images, and creating lists.  
- Master the basic syntax of CSS, including setting different colors and fonts  
- Publish Web pages through a Web server (e.g., UBFS personal Web space) | 2.4 |
| HW4: Adding Images, Audio, and Video to your Web Pages | - Create and embed audio in Web pages  
- Embed video in Web pages  
- Create and add clickable images | 2.4 |
| HW5: Adopting a JavaScript | - Learn the basic syntax of JavaScript programming, including how to define variables, control structures, functions, and events  
- Make light modifications to other people’s JavaScripts | 2.4 |

---

1 Refer to the LIS Objectives at:  
http://gse.buffalo.edu/gsefiles/documents/departments/LISObjectivesShortCouncilApproved20111006.doc
| HW6: Building a Simple Library Database | • Define basic concepts of relational databases, including entity, attribute, relationship, data model, data redundancy, and normalization  
• Identify key components of relational database management system (DBMS), including field, record, table, and query  
• Apply relational database approach to simple problems (i.e., problems that can be modeled with three tables or so)  
• Master the basic functions of Microsoft Access, including those for creating databases, tables, fields, and queries | 2.1  
2.4 |
| Team Project | • Identify and define an information problem  
• Design (include prototype) a Web site to address that information problem  
• Apply and integrate key information technologies, including Web-based content delivery (i.e., HTML and CSS), programming, relational database, and Web 2.0  
• Collect and create information, with an eye on the legal implications such as copyright and fair use  
• Organize and present information via Web pages and Web sites  
• Develop skills for technical writing, presentation, and demonstration  
• Develop teamwork skills, including collaboration, communication, task allocation, scheduling, and project management  
• Develop personal qualities, including initiative, self-motivation, creativity, dependability, adaptability, respectfulness, persistence, and integrity. | 1.1  
2.1  
2.4  
3.3  
3.5  
5 |