

### Computers/Tech Ed Graduation Projects Requirements

Course	Typical Grade Level	Description
501	9	Students in course 501, Applied Computers I, will complete a comprehensive semester exam project using MS Word and MS Excel. Students must apply what they have learned to solve a simulated problem which may include any or all of the following: creating and editing a document; the use of wizards and templates to create a cover letter and resume; formatting a research paper with tables, footnotes and a works cited page; creating a worksheet and embedded chart, using formulas and web queries; and creating, sorting, and filtering a worksheet database.
502	10-12	Students in the course 502, Applied Computers II, must complete the Final Exam Project, which is a comprehensive assignment requiring them to use various features of the spreadsheet program, MS Excel. Evaluating the capabilities and limitations of Excel, each student will create a spreadsheet-based solution to a simulated problem using a combination of what-if analysis, templates, pivot tables, and macros.
503	10-12	Students in the course 503, Applied Computers III, must complete the Final Exam Project, which is a comprehensive assignment requiring them to use various features of the database program, MS Access. Evaluating the capabilities and limitations of Access, each student will create a database solution to a simulated problem using features such as queries, sorting, forms, and macros. Database reports must be produced as well.
505	9-12	Students in the course 505, BASIC Programming II, complete the Game Project, which is a comprehensive assignment requiring them to incorporate most of the concepts studied in 504 and 505. They must apply the steps of structured programming to design, code, debug, and document their program. The project must use specific constructs such as loops and decision structures. The student will have to analyze existing algorithms supplied by others as well as to create new ones to perform tasks such as sorting, searching, accumulating, etc.
951	10-12	Students in course 951, Architectural Planning and Design, are required to complete a detailed set of house plans. The student will research and analyze the various aspects of sound residential layout and construction. Making use of the CAD system, the student will design and plot a functional set of house plans.
952	9	Students in course 952, Materials Technology I, are required to design, construct, and finish a wooden jewelry box. The jewelry box is made of student-selected woods with a hinged lid. The inside consists of a removable tray or working drawer. The outside will be routed and must include a base molding. The project will be sanded and finished.
953	10-12	Students in course 953, Advanced Level Materials Technology, will complete a project in the medium of wood working. The students will conceive, design and then apply

		techniques and processes in wood working to produce the finished product.
956	10-12	Students in course 956, Multimedia Technology I, are required to research, write, and produce a 30-50 slide multimedia moviemaking presentation using MS PowerPoint. Students research and analyze (library, Web, or personal contact) historical aspects of moviemaking from silent movies to contemporary directors and actors. Students will also use the scanner to insert pictures into the presentation. The presentation is then transferred to videotape along with inert editing a soundtrack. Movie clips may also be assemble edited into the presentation.
958	11-12	Students in Multimedia 3 who complete an animation video, individually or in a group, and enter it in the PA Computer Fair, Comcast, or other video competition, may use this as a Graduation project requirement. The animation can be clay, computer generated, or a combination of both. Titles, credits, audio, and music must be added to the completed animation video.