# **Course of Study Information Page**

Course Title: Computer Technology III (Course #	#473)									
Course Description: Computer Technology III & IV are each semester courses that together equal a one year course (one-half year term at UMHS). Advanced techniques in word processing, presentation graphics, spreadsheet, Internet training/research, and web design will be presented. May be repeated for credit. Many colleges are requiring a computer class for entry. This course is recommended for all career paths.										
Length of Course:	Semester									
Grade Level:	9 - 12									
Credit:  5 credits each semester  Meets graduation requirements Request for UC "a-f" requirements  College Prep Elective  Vocational										
Prerequisites:	Computer Technology I and II with a "C" grade or better or teacher approval.									
Department(s):	Business									
District Sites:	EDHS, ORHS, PHS, UMHS, IHS									
Board of Trustees Adoption Date:	5-9-00									
Textbook(s)/Instructional Materials:	Microsoft Office 2000: Advanced Concepts and Techniques Shelly, Cashman, Vermatt									
Date Adopted by the Board of Trustees:	5-23-00									

# **Computer Technology III**

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(Number and Page notations are congruent with the Technology Standards and Competencies for all students and the English-Language Arts Content Standards)

#### **NATIONAL STANDARD #1**

Basic operations and concepts necessary for students.

- Students demonstrate a sound understanding of the nature and operation of technology systems (Page 5)
- Students are proficient in the use of technology (Page 5)

#### **BENCHMARKS**

- Use technology tools and resources for managing and communicating personal/professional information (e.g., finances, schedules, addresses, purchases, correspondence) (Number 5, Page 9)
- Make informed choices among technology systems, resources, and services (Number 2, Page 9)

- 1. Add an outside border with color and shading to a paragraph.
- 2. Center text vertically on a page.
- 3. Return formatting to the Normal style.
- 4. Insert an existing Word document into an open document.
- 5. Save an active document with a new file name.
- 6. Create a header different from a previous header.
- 7. Change a starting page number in a section.
- 8. Create a chart from a Word table.
- 9. Format a chart in Word.
- 10. Add picture bullets to a list.
- 11. Change the direction of text in table cells.
- 12. Change alignment of text in table cells.
- 13. Explain the merge process.
- 14. Use a template to create a letter.
- 15. Create an outline numbered list.
- 16. Merge and print form letters.
- 17. Selectively merge and print form letters.
- 18. Address mailing labels.
- 19. Address envelopes.
- 20. Format cells, using relative and absolute addresses within a file.
- 21. Create charts from spreadsheet data that communicate data/relationships effectively.
- 22. Common formats for lab reports which include spreadsheets and graphs. (Requested by EDHS Science Department)
- 23. Create outlines, incorporating tables and charts. (Requested by EDHS Social Science Department)
- 24. Create MLA formatted documents. (EDHS English and History Departments have requested this be covered; English-Language Arts Content Standards, 1.7)

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### NATIONAL STANDARD #2

Social, ethical, and human issues regarding technology.

- · Students understand the ethical, cultural, and societal issues related to technology
- Students practice responsible use of technology systems, information, and software
- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity (Page 5)

### **BENCHMARKS**

- Demonstrate and advocate for legal and ethnical behaviors among peers, family, and community regarding the use of technology and information (Number 4, Page 9)
- Analyze advantage and disadvantages of widespread use and reliance of technology in the work place and in society as a whole (Number 3, Page 9)

- 1. Be aware of moral, legal, and ethical issues regarding use of technology and electronic information. (Numbers 1-2, Page 15, Basics)
- 2. Adhere to the District's appropriate use policy, follow copyright requirements, and avoid plagiarism.
- 3. Evaluate sources for reliability, credibility, and relevance. (Page 16, Research)

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#### NATIONAL STANDARD #3

Using technology resources as a tool for productivity.

- Students use technology tools to enhance learning, increase productivity, and promote creativity (Page 5)
- Students use productivity tools to collaborate in constructing technology enhanced models, preparing publications, and producing other creative works (Page 5)

### **BENCHMARKS**

- Evaluate technology based options, including distance and distributed education, for lifelong learning (Number 6, Page 9)
- Identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and work place needs (Number 1, Page 9)

- 1. Download clip art from the Microsoft Clip Gallery Live Web page.
- 2. Add a shadow to characters.
- 3. Control the colors and thickness of outlines and borders.
- 4. Use date, memo, OLE, and hyperlink fields.
- 5. Enter data in date fields.
- 6. Enter data in memo fields.
- 7. Enter pictures into OLE fields.
- 8. Enter Web Page names into hyperlink fields.
- 9. Change the row and column spacing in tables.
- 10. Save table properties.
- 11. Create a form with a subform.
- 12. Move and resize fields on a form.
- 13. Change the styles and colors of labels.
- 14. Use special efforts on forms.
- 15. Create exciting presentations using embedded visuals.
- 16. Import an outline created in word processing.
- 17. Create a slide background using a picture.
- 18. Customize graphical bullets.
- 19. Create and embed an organization chart.
- 20. Insert a table into a slide.
- 21. Create a PowerPoint clip art Object.
- 22. Scale objects. (English-Language Arts Content Standards, 1.14, 2.6)

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#### NATIONAL STANDARD #4

Using technology resources as a tool for communication.

- Students use telecommunications to collaborate, publish, and interact with peers
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences (Page 5)

### **BENCHMARKS**

 Routinely and efficiently use on-line information resources to meet needs for collaboration, research, publications, communications, and productivity (Number 7, Page 9)

- 1. Edit previously developed resume. (English-Language Arts Content Standards, 2.5)
- 2. Use the Draw Table feature to create a table.
- 3. Insert a picture as a watermark.
- 4. Format a watermark.
- 5. Define desktop publishing terminology. (English-Language Arts Content Standards, 1.8)
- 6. Create a WordArt drawing object.
- 7. Format a WordArt drawing object.
- 8. Add ruling lines above and below paragraphs.
- 9. Insert the current date into a document.
- 10. Format a document into multiple columns.
- 11. Justify a paragraph.
- 12. Format a character as a dropped capital letter.
- 13. Insert a column break.
- 14. Link an object to a Word document.
- 15. Place a vertical rule between columns.
- 16. Change character spacing.
- 17. Shade a paragraph.
- 18. Position a text box.
- 19. Balance columns.
- 20. Insert a picture into a document.
- 21. Position a graphic between columns.
- 22. Use the Format Painter button.
- 23. Place a border on a page.

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#### NATIONAL STANDARD #5

Using technology resources as a tool for research.

- Students use technology to locate, evaluate, and collect information from a variety of sources
- Students use technology tools to process data and report results
- Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks (Page 5)

#### **BENCHMARKS**

• Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning (Number 8, Page 9)

- 1. Modify a chart in Microsoft Graph.
- 2. Explain the terms, data field, and data record.
- 3. Create a data source.
- 4. Switch from a data source to the main document.
- 5. Use an IF field in the main document.
- 6. Insert a Fill-in field in the main document.
- 7. Create forms for consistent data entry. (English-Language Arts Content Standards, 1.9)
- 8. Assign a name to a cell and refer to the cell in a formula by using the assigned name.
- 9. Determine the monthly payment of a loan using the financial function PMT.
- 10. Enter a series of per cents using the fill handle.
- 11. Add a pointer to a data table using conditional formatting.
- 12. Determine a present value of a loan using the PV function.
- 13. Create an amortization schedule.
- 14. Add a hyperlink to a workbook.
- 15. Protect and unprotect cells.
- 16. Create a worksheet database.
- 17. Add computational fields to a database.
- 18. Use the VLOOKUP function to look up a value in a table.
- 19. Change the range of a name.
- 20. Use a data form to display records, add records, delete records, and change field values in a worksheet database.
- 21. Sort a worksheet database on one field or multiple fields.
- 22. Display automatic subtotals.
- 23. Use a data form to find records that meet comparison criteria.
- 24. Filter data to display records that meet comparison criteria.
- 25. Use the advanced filtering features to display records that meet comparison criteria.
- 26. Apply database functions to generate information about a worksheet database.
- 27. Use the Report Wizard to create a report.
- 28. Use the Report window to modify a report design.
- 29. Recognize sections in a report.

- 30. Create a report with grouping and subtotals.
- 31. Change headings in a report.
- 32. Move and resize controls on a report.
- 33. Use the Form Wizard to create an initial form.
- 34. Use the Form window to modify a form design.
- 35. Place a calculated field on a form.
- 36. Change the format of a field on a form.
- 37. Place a combo box on a form.
- 38. Place a title on a form.
- 39. Change colors on a form.
- 40. Add a title to a form.
- 41. Use a form that contains a subform.
- 42. Use date and memo fields in a query.
- 43. Compact a database.
- 44. View data using a form.
- 45. Continue e-mail skills. (English-Language Arts Content Standards, 2.1)
- 46. Continue developing skills to research effectively on the Internet. (English-Language Arts Content Standards, 2.6)

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#### NATIONAL STANDARD #6

Using technology resources as a tool for problem solving and decision making.

- Students use technology resources for solving problems and making informed decisions
- Students employ technology in the development of strategies for solving problems in the real world (*Page 5*)

### **BENCHMARKS**

- Investigate and apply expert systems, intelligent agents, and simulations in real world situations (*Number 9, Page 9*)
- Collaborate with peers, experts, and others to contribute to a content related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works (Number 10, Page 9)

- 1. Create a data table to analyze data in a worksheet.
- 2. Analyze worksheet data by goal seeking.
- 3. Analyze worksheet data by changing values.
- 4. Analyze database data and develop appropriate queries.
- 5. Analyze data and make recommendations.
- 6. Analyze data from integrated projects and make recommendations.