DAKOTA COLLEGE
COURSE OUTLINE

COURSE TITLE AND NUMBER, CREDITS:  CIS 219 Micro Computer Hardware
                                      3 credits
                                      Fall semester  T,Thu. 9:00-10:15

COURSE INFORMATION:  Instructor:  Greg Livedalen
                      Email:  Greg.Livedalen@dakotacollege.edu
                      Office:  Thatcher 213 -- 228-5419

PREREQUISITE:  None

COURSE DESCRIPTION:  This is a comprehensive study of the hardware components of the PC.

REQUIRED TEXT:  None Cisco IT Essentials is available online at www.cisco.dakotacollege.edu
                or  www.cisco.netacad.net

COURSE OBJECTIVES:
  ● Upon completion of this course students will be able to understand the internal workings
    of the PC. #3
  ● Be able to diagnose and repair. #2
  ● Be able to build a computer from components. #3
  ● Be more prepared to take the CompTIA A+ Core Hardware Exam.

COURSE CONTENT:
1. Introducing The Personal Computer.
2. Safe Lab procedure and tool use.
5. Fundamental Operating Systems
6. Fundamental Laptops and Potable Devices.
7. Fundamental Printers and Scanners.
8. Fundamental Networks

COURSE REQUIREMENTS AND EVALUATION:
  ● Students will be expected to attend all classes.
  ● Numerous assignments will be collected, graded, along with quizzes and tests.
  ● Grading will be on a 90-80-…system.
Syllabus
Microcomputer Hardware

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Title</th>
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<tbody>
<tr>
<td>CIS 219</td>
<td>Micro Computer Hardware</td>
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<table>
<thead>
<tr>
<th>Term / Year</th>
<th>Text</th>
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<tbody>
<tr>
<td>Fall 2009</td>
<td>Cisco online IT Essentials</td>
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<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Additional Materials</th>
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<tbody>
<tr>
<td>None</td>
<td>A toolkit</td>
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<table>
<thead>
<tr>
<th>Instructor</th>
<th>Classroom</th>
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<tbody>
<tr>
<td>Greg Livedalen</td>
<td>Thatcher 209</td>
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<table>
<thead>
<tr>
<th>Phone</th>
<th>Email</th>
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<tbody>
<tr>
<td>701-228-5419</td>
<td><a href="mailto:Greg.livedalen@msub.nodak.edu">Greg.livedalen@msub.nodak.edu</a></td>
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<table>
<thead>
<tr>
<th>Office Location</th>
<th>Office Hours</th>
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<tbody>
<tr>
<td>Thatcher Hall Room 213</td>
<td>7:00 am-4:00 pm</td>
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Course Rationale:
To provide an opportunity for students to obtain the knowledge and skills necessary to service microcomputer hardware and supported peripherals, build a computer from parts, and prepare for a successful result on the CompTIA A+ PC Hardware exam.

Course Objectives:
Upon conclusion of this course, students will be able to:
- Identify all parts of a PC
- Discuss the functions and interactions of all PC subsystems
- Identify and troubleshoot common PC hardware problems
- Select quality PCs and constituent components based on performance and cost
- Install, replace, and upgrade PC hardware components
- Install and troubleshoot PC peripherals such as printers and modems

**Catalog Description:**

This course introduces basic skills and safety procedures required to become an A+ certified technician. Emphasis will be on the skills needed to build, upgrade, configure, and troubleshoot computer peripheral and operating systems.

**Attendance:**

Students are expected to be present and punctual for all scheduled classes and labs.

**Dropping a Class:**

The student is responsible for understanding the procedure for dropping a class. If you fail to attend classes but do not follow the procedure for dropping the class, you may receive a failing grade. If you wish to withdraw from the college (i.e., drop all your classes), Failure to properly withdraw from classes can have a detrimental effect on your grade point average and your future educational goals.
Grading Rationale:
In this class, students will be evaluated according to performance in the following categories:
- Three exams
- Quizzes at the instructor’s discretion
- Lab activities and hands-on performance tests
- In-class assignments, homework, and class participation
- A research paper or presentation
- A final exam

The breakout for grades is as follows:
- Exams, quizzes, research paper and presentation 30%
- Homework, labs and hand-on performance tests 30%
- Final 20%
- Participation and in-class assignments 20%

Grade achievement levels are as follows:

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<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>90%+</td>
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<tr>
<td>B</td>
<td>80-89%</td>
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<tr>
<td>C</td>
<td>70-79%</td>
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<tr>
<td>D</td>
<td>60-69%</td>
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<tr>
<td>F</td>
<td>0-59%</td>
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Special Accommodations:
If you have a special learning need or issue, it works to your advantage to notify your instructor immediately if special devices or assistance will help you in this class. To request academic accommodations for a disability, Students are required to provide documentation of disability to Disability Support Services prior to receiving accommodations.

Classroom Etiquette:
Pagers and cell phones will be turned off or set to vibrate mode during class. Please show courtesy to the class by restricting conversation to in-class topics, and raise your hand to gain attention when asking a question or raising a point of discussion.

Academic Honesty:
The college experience is founded on the concepts of honesty and integrity. Dishonesty, cheating, plagiarism, or knowingly furnishing false information to the college are regarded as particularly serious offenses. Cases of dishonesty will be handled by levying certain penalties. However, in flagrant cases, the penalty may be dismissal from the college after proper due process proceedings.

Turning in Work:
Be sure to include your name and the course name and section on all work to be turned in.

Late Coursework:
All assignments are to be turned in on the due date. Late work may be accepted at the instructor’s discretion.
Research Project:

Communication skills, both oral and written, are a widely recognized issue in the field of information technology. Many proficient technicians have limited skills in communicating with coworkers and end users. Our goal is to address these issues by having each student provide a written research paper, and an oral presentation in class. See the attached document, “Guidelines for Papers and Presentations” for topic ideas and general format rules.
Guidelines for Papers and Presentations

Papers

Goals:
Success in your career will depend greatly on your written and oral communication skills. Our school recognizes the need for students to develop proficiency in these skills, and requires all students to submit a research paper and provide an oral presentation in each class in this department.

Format:
- Length: 5 – 7 pages, excluding illustrations and bibliography
- Margins: 1.5” top, 1" left, right, and bottom
- Spacing: double-spaced for normal text, single-spaced for long quotes
- Font Size: 10 - 12 point
- Font Styles: Times New Roman or Courier
- Illustrations: welcome if of good quality
- Cover Sheet: optional but suggested – should include topic, course ID/section, student name, and date
- Binders: NOT USED

Topics:
See the list of suggested topics below. You will base your presentation on your research paper topic.

Attribution:
All works and illustrations used in your paper must be cited; this means crediting the source where you found the information you used to support your work. If you fail to give credit for copyrighted information you present as your own work, that constitutes plagiarism, and will be penalized by a zero for the project.

Citing Sources:
- **Works used** – This is the source material you used to support your research project.
- **Works consulted** – You probably looked at many sources before you located usable material, and you deserve credit for this research. Your work will be considered for credit for works consulted; list your preliminary sources as consulted works.

Presentations

Goals:
- Display your ability to research and deliver information as a career skill. Creative presentation ideas are welcome; use your imagination!
- Develop public speaking skills. If you have stage fright, this is the best way to overcome it!
- Play the part of instructor. Instructing others will be a part of your career. Oddly enough, some people even enjoy teaching!
Format:
Length 10 to 15 minutes. Rehearse and time your presentation
Visual Aids Use of slideshows and the whiteboard are strongly encouraged
Handouts Acceptable if of lasting value – create something students can use later

Attribution / Citations:
You took care of these in your paper. List your sources in your presentation, or offer to share them with the class.

Closing the Presentation:
When you have finished your presentation, remember to ask the courtesy question: "Are there any questions?"

Suggested Research Paper Topics
1. Alternatives to Microsoft software
2. Asset / Inventory tracking
3. Backup strategies / disaster recovery
4. Buy or build your own PC?
5. Customer service and tech support issues
6. Deployment strategies (deploying multiple PCs)
7. End user education
8. High-speed hardware interfaces (SCSI, FireWire, IEEE 1394, Serial ATA, etc.)
9. High-speed Internet connectivity
10. History or overview of an operating system
11. History of the PC
12. Improving PC reliability
13. Network client software
14. Network hardware
15. Network operating systems
16. Network topologies (peer-peer vs. client-server)
17. Optical drives
18. PC security
19. PC troubleshooting applications
20. Professional certifications in the IT industry
21. Tape drives
22. Terminal emulation
23. Windows tips and tricks
24. Elective topic_______________________________