TRIAL COURSE OR NEW COURSE PROPOSAL

SUBMITTED BY:

<table>
<thead>
<tr>
<th>Department</th>
<th>Business Systems Technologies, IT Specialist Program</th>
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<tr>
<td>Prepared by</td>
<td>Keith Swarner</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:keith.swarner@uaf.edu">keith.swarner@uaf.edu</a></td>
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</tbody>
</table>

College/School: CRCD

Phone: 455-2820

Faculty Contact: keith.swarner@uaf.edu/455-2820

See http://www.uaf.edu/uafgov/faculty/cd/cdman.html for a complete description of the rules governing curriculum & course changes.

1. ACTION DESIRED (check one):

   - Trial Course
   - New Course [X]

2. COURSE IDENTIFICATION:

   - Dept: CITS
   - Course #: 203
   - No. of Credits: 4

Justify upper/lower division status & number of credits:

This course will provide students with an understanding of the fundamental skills and knowledge required of an IT support technician. This course would be appropriate for students who are entering their first semester of the IT Specialist associate degree program.

Approximately the following amount of instructional time will be delivered in each of the following major topic areas (Note: the terminology used in the following list is generic language and will not necessarily match perfectly with the topics language used on the sample syllabus being submitted with this new course form): IT Industry Certifications and Job Roles, 1 hr.; Computer Systems and Computer System Components, 2 hrs.; Safety Guidelines, Hazards and Procedures, 1 hr.; IT Professional Tools and Proper Tool Usage, .5 hrs.; Selecting and Replacing Computer Component, 1.5 hrs.; Upgrading PC Components and Peripherals, 1 hr.; Steps and Application of the Troubleshooting Process, 1 hr.; Preventative Maintenance, 1 hr.; Desktop and Network Operating Systems, 1 hr.; Operating System (OS) Installation and Post Installation Steps and Procedures, 2 hrs.; Remote Installation and Image-based Installations, 1 hr.; Upgrading Operating Systems, .5 hrs.; Multi-boot Operating Systems, .5 hrs.; OS Configuration and Administration, 2 hrs.; Optimizing Operating Systems, .5 hrs.; OS Maintenance and Troubleshooting, 1 hr.; OS Backups and System Recovery, .5 hrs.; Laptops, PDAs and Smartphones Overview, .5 hrs.; Laptop Components and Component Selection, 1 hr.; Compare Desktop and Laptop Components, .5 hrs.; Wireless Communication Methods for Laptops and Portable Devices, .5 hrs.; Repairs for Laptops and Portable Devices, 1.5 hrs.; Maintaining a Troubleshooting Laptops, 1 hr.; Version Control Between Desktops and Laptops, 1 hr.; Printer Characteristics and Capabilities, 1 hr.; Safety Hazards and Safety Procedures Associated with Printers and Scanners, .5 hrs.; Printer-to-Computer Interfaces, .5 hrs.; Printer Types, 1.5 hrs.; Printer Installation and Configuration, 1 hr.; Printer Description Language (PDL), .5 hrs.; Scanner Types, Resolution and Interfaces, 1 hr.; Scanner Installation, Configuration, and Calibration, 1 hr.; Printer and Scanner Maintenance and Troubleshooting, 1 hr.; Troubleshooting Printers and Scanners, 1 hr.; Overview of Computer Networks, .5 hrs.; IP Addressing and Address Configuration Methods, 1 hr.; Physical Components of a Network, 1.5 hrs.; LAN Topologies and Architectures, .5 hrs.; Selecting and Upgrading Components of a Network, 1 hr.; Sharing and Connecting to Resources, 1 hr.; Network Maintenance and Troubleshooting, 1 hr.; Importance of Security and Security Threats, 1 hr.; Security Procedures and Protection Methods, 2 hrs.; Security Requirements and Policies, 1.5 hrs.; Security Hardware and Application Software, 1.5 hrs.; Access Control Accounts, 2 hrs.; Security Issues and Troubleshooting, 1 hr.; Relationship between Communication and Troubleshooting, 1 hr.; Good Communication Skills and Professional Behavior, 1 hr.; Focusing the Customer on the Problem, 1 hr.; Working with Different Customer Personality Types, .5 hrs.; Business Policies, Ethical Customs and Legal Rules, 1 hr.; Call Center Environments, .5 hrs.;

3. PROPOSED COURSE TITLE:

   Information Technology Support Fundamentals
4. CROSS LISTED? YES/NO  
   | Yes: Dept. | Course # |
   | No | NA | NA |
   (Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

5. STACKED? YES/NO  
   | Yes: Dept. | Course # |
   | No | NA | NA |

6. FREQUENCY OF OFFERING:  
   | As Demand Warrants |
   (Every or Alternate) Fall, Spring, Summer — or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (if approved)  
   | Fall 2009 |

8. COURSE FORMAT:  
   NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.  
   | 6 weeks to full semester |
   OTHER FORMAT (specify)  
   | NA |
   Mode of delivery (specify lecture, field trips, labs, etc)  
   | Lecture |

9. CONTACT HOURS PER WEEK:  
   | 4 | 0 | 0 |
   LECTURE hours/weeks | LAB hours/week | PRACTICUM hours/week |
   Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See http://www.uaf.edu/uafgov/faculty/cd/credits.html for more information on number of credits.  
   OTHER HOURS (specify type)  
   | NA |

10. COMPLETE CATALOG DESCRIPTION including dept., number, title and credits (50 words or less, if possible):  
   CITS F203 Information Technology Support Fundamentals  
   4 Credits Offered As Demand Warrants  
   This course teaches the skills and knowledge required by professional computer support technicians to support and troubleshoot computer operating systems and computer hardware. Students will learn the purpose and function of the internal components of a computer; will learn to assemble a computer system; install an operating system; and troubleshoot using system tools and diagnostic software. The course will also introduce the basic skills and knowledge required to connect to and share resources in a network environment.  
   Recommended: CIOS F128 or equivalent skills. (4+0)  

11. COURSE CLASSIFICATIONS: (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)  
   | YES | X | NO |
   H = Humanities | N = Natural Science | S = Social Sciences |
   Will this course be used to fulfill a requirement for the baccalaureate core?  
   IF YES, check which core requirements it could be used to fulfill:  
   O = Oral Intensive, Format 6 | W = Writing Intensive, Format 7 | Natural Science, Format 8 |
12. COURSE REPEATABILITY:

Is this course repeatable for credit?  

- YES  
- NO  

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).  

NA  

How many times may the course be repeated for credit?  

NA  

TIMES  

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?  

NA  

CREDITS  

13. GRADING SYSTEM:

LETTER:  

- X  

PASS/FAIL:  

NA

14. PREREQUISITES

REQUISITES

None

RECOMMENDED

CIOS F128 or equivalent skills

Classes, etc. that student is strongly encouraged to complete prior to this course.

15. SPECIAL RESTRICTIONS, CONDITIONS

None

16. PROPOSED COURSE FEES

None

17. PREVIOUS HISTORY

Has the course been offered as special topics or trial course previously?  

- Yes/No  

Yes/No  

No

If yes, give semester, year, course #, etc.:

NA

18. ESTIMATED IMPACT

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

It is anticipated that an adjunct instructor will be hired to teach this course. If course enrollments are not sufficient to meet the costs of hiring an adjunct, the course will not be offered; or depending on enrollments in other courses, the teaching load of a full-time faculty may be adjusted.

19. LIBRARY COLLECTIONS

Have you contacted the library collection development officer (ffklj@uaf.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course?  

- If so, give date of contact and resolution.  
- If not, explain why not.

No  

Yes  

- X

Karen Jensen, the collection development officer for the library, was contacted by email on 9/29/2008. We don’t anticipate the need for any
20. IMPACTS ON PROGRAMS/DEPTS

What programs/departments will be affected by this proposed action?
Include information on the Programs/Departments contacted (e.g., email, memo)

ITS. All CRCD CIOS faculty from the following campus have been contacted regarding this change: IAC, KuC, NWC, TVC.

21. POSITIVE AND NEGATIVE IMPACTS

Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.

**Positive Impacts:** This course will provide foundation level skills for students entering the IT Specialist associate degree program and the prerequisite knowledge required to begin courses listed within the Network and System Administration concentration of the IT Specialist A.A.S. degree program.

**JUSTIFICATION FOR ACTION REQUESTED**

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

CompTIA A+ certification is the recognized industry standard to validate an IT support professional’s knowledge and competency in core hardware and operating system technologies, including installation, configuration, diagnosing, preventive maintenance and basic networking. In 2006 the Computer Technology Industry Association (CompTIA) implemented a significant update to A+ certification.

Prior to the 2006 update, CompTIA recognized individuals as being A+ certified after passing an exam focused on core hardware and a second exam focused on operating system technologies. Since the update, candidates must still pass two exams; however both exam one and exam two contain a mix of core hardware and operating system technologies – each exam focuses on different levels of competency in these areas. This update requires that potential candidates develop a comprehensive knowledge of core hardware and operating system technologies prior to attempting to certify as an A+ support professional.

The addition of this course will enable the IT Specialist program to continue offering curriculum that is current and relevant to our profession and will provide students with comprehensive coverage of the core hardware and operating system technologies that align with A+ industry standards recognized by the employers who hire our graduates.
**APPROVALS:  SIGNATURES ON FILE AT THE GOVERNANCE OFFICE**

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature Date</th>
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<tbody>
<tr>
<td>IT Specialist Program Chair</td>
<td>10/6/2008</td>
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<tr>
<td>CRCD Division Coordinator</td>
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<td>Business Systems Technology</td>
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<td>College of Rural and Community Development Chair</td>
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<td>College of Rural and Community Development Dean</td>
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<td>Provost (if applicable)</td>
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Offerings above the level of approved programs must be approved in advance by the Provost.

**ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE**

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<th>Name</th>
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<tr>
<td>UAF Faculty Senate Curriculum Review Committee Chair</td>
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**ADDITIONAL SIGNATURES: (If required)**

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ATTACH COMPLETE SYLLABUS (as part of this application).
Note: syllabus must follow the guidelines discussed in the Faculty Senate Guide http://www.uaf.edu/uafgov/faculty/cd/syllabus.html. The department and campus wide curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items are missing or unclear, the proposed course change will be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES
During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to the discipline):

1. Course information:
   - Title, number, credits, prerequisites, location, meeting time (make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:
   - Name, office location, office hours, telephone, email address.

3. Course readings/materials:
   - Course textbook title, author, edition/publisher.
   - Supplementary readings (indicate whether required or recommended) and any supplies required.

4. Course description:
   - Content of the course and how it fits into the broader curriculum;
   - Expected proficiencies required to undertake the course, if applicable.
   - Inclusion of catalog description is strongly recommended, and
   - Description in syllabus must be consistent with catalog course description.

5. Course Goals (general) and Student Learning Outcomes (more specific)

6. Instructional methods:
   - Describe the teaching techniques (eg: lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

7. Course calendar:
   - A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought this through and will not be making it up on the fly (e.g. it is not adequate to say “lab”. Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

8. Course policies:
   - Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

9. Evaluation:
   - Specify how students will be evaluated, what factors will be included, their relative value, and how they will be tabulated into grades (on a curve, absolute scores, etc.)

10. Support Services:
    - Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

11. Disabilities Services:
    - The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials.
    - State that you will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities.
Course Syllabus
CITS F203 Information Technology Support Fundamentals
University of Alaska Fairbanks

Course Information
Course Number-Section, Title: CITS F203 TE1 Information Technology Support Fundamentals
Number of Credits: 4.0
Recommended: CIOS F128 or equivalent skill.
Class Location: UAF Downtown Center, Room 210
Meeting Days & Time: Thursday, 5:00-9:00 PM, 9/4 – 12/18.
This course will consist of one 4-hour class lecture delivered to students once a week for 14 weeks. Students can expected to spend an additional eight to 12 hours per week outside of scheduled classroom lecture studying lecture material, completing reading assignments and homework. A final exam will be given during the 15th week.

Instructor Information
Name: Keith Swarner
Office Location: UAF Downtown Center, 510 Second Ave, Fairbanks AK, room 210B
Office Hours: 2:00 pm – 4:30 pm Monday, Tuesday and Thursday or by appointment
Telephone: 455-2820
Email: keith.swarner@uaf.edu

Course Readings/Materials
Required textbook/materials:
Online Curriculum – http://classes.uaf.edu
Local access to the online curriculum is available through the UAF Blackboard learning management system at http://classes.uaf.edu. The online curriculum is the primary source of information for all online chapter exams. A backup to the local curriculum access is available at http://cisco.netacad.net and should only be used to if local access is unavailable.

Recommended textbook/materials:
Textbook
Title: IT Essentials: PC Hardware and Software Companion Guide, Third Edition
Author(s): David Anfinson and Ken Quamme
Publisher: Cisco Press

Course Description
This course teaches the skills and knowledge required by professional computer support technicians to support and troubleshoot computer operating systems and computer hardware. Students will learn the purpose and function of the internal components of a computer; will learn to assemble a computer system; install an operating system; and troubleshoot using system tools and diagnostic software. The course will also introduce the basic skills and knowledge required to connect to and share resources in a network environment.
Course Syllabus: CITS 203 Information Technology Support Fundamentals

Course Goals
Upon successful completion of this course, the student will be able to define, explain, or perform tasks related to the following:

1. Selecting, installing maintaining, and troubleshooting computer hardware components; including: the proper use of tools and utilities; the recognition of potential safety hazards and safety procedures
2. Selecting, installing maintaining, and troubleshooting computer operating systems; including: the proper use of tools and utilities; the recognition of potential safety hazards and safety procedures
3. Maintaining, and troubleshooting computer laptop and portable devices
4. Selecting, installing maintaining, and troubleshooting computer printers and scanners
5. Using, maintaining, and troubleshooting computer networks
6. Providing security in an IT environment
7. PC Technician job roles and related IT industry certifications; including: professional practices and communication skills expected of a PC Technician

Student Learning Outcomes
Upon successful completion of this course, the student will be able to:

1.1. Identify the names, purposes and characteristics of the components that make up a computer system – cases, power supplies, motherboards, CPUs, cooling systems, ROM, RAM, adapter cards, storage drives, ports, cables, input devices, output devices and system resources
1.2. Select computer system components appropriate for the intended use of the computer system
1.3. Upgrade computer system components
1.4. Troubleshoot computer components and peripherals
1.5. Identify the names and purposes of the tools and software used with personal computer components
1.6. Properly use the tools and software used with personal computer components
1.7. Describe potential safety hazards and safety procedures associated with computer systems and system components
1.8. Understand the process to install a power supply
1.9. Attach components to the motherboard and install the motherboard
1.10. Install internal drives into both internal and external bays
1.11. Install adapter cards
1.12. Understand the process to connect all internal cables
1.13. Reattach side panels and connect external cables to the computer
1.14. Identify the meaning of startup beep codes and the purpose of BIOS setup
2.1. Explain the purpose of an operating system
2.2. Describe and compare the purpose, limitations, capabilities and the similarities and differences of various operating systems
2.3. Select operating systems appropriate for the intended use of the computer
2.4. Perform default, custom, and advanced operating system installations
2.5. Describe how to upgrade an operating system
2.6. Navigate a GUI (Windows) and install and uninstall operating system components
2.7. Identify and apply common preventative maintenance techniques for operating systems
2.8. Troubleshoot common operating system issues and problems
3.1. Describe laptops and other portable devices
3.2. Identify, describe and select laptop computer components
3.3. Compare and contrast desktop and laptop components
3.4. Describe wireless communication methods for laptops and portable devices
3.5. Explain how to configure laptops
3.6. Compare different mobile phone standards
3.7. Identify common preventative maintenance techniques for laptops and portable devices
3.8. Describe how to troubleshoot a laptop computer
4.1. Identify different printer types and describe characteristics and capabilities of different printer types
4.2. Understand the process of installing and configuring printers
4.3. Identify different scanners types and describe characteristics and capabilities of different scanner types
4.4. Understand the process of installing and configuring scanners
4.5. Describe potential safety hazards and safety procedures associated with printers and scanners
4.6. Describe methods used to make printers available on a network
4.7. Identify and apply common preventative maintenance techniques to printers and scanners
4.8. Troubleshoot printers and scanners
5.1. Explain the principles of networking
5.2. Describe types of networks and basic networking concepts and technologies
5.3. Describe the physical components of a network
5.4. Describe LAN Topologies and Architectures
5.5. Identify Standards Organizations
5.6. Identify Ethernet Standards
5.7. Explain OSI and TCP/IP Models
5.8. Configure a NIC and a Modem
5.9. Design and upgrade a network based on customer needs
5.10. Select network components based on customer needs
5.11. Identify potential safety hazards and implement proper safety procedures related to networks
5.12. Identify and apply common preventative maintenance techniques used for networks
5.13. Troubleshoot network problems and issues
6.1. Explain the importance of security
6.2. Describe security threats
6.3. Identify security procedures
6.4. Outline security requirements based on customer needs
6.5. Select Security components based on customer needs
6.6. Implement a customer’s security policy
6.7. Identify common preventative maintenance techniques for security
6.8. Troubleshoot security issues and problems
7.1. Describe PC technician job roles and related IT industry certifications
7.2. Understand the purpose of preventative maintenance
7.3. Identify and describe the steps of the troubleshooting process
7.4. Explain the relationship between communication and troubleshooting
7.5. Describe good communication skills and professional behavior
7.6. Explain ethics and legal aspects of working with computer technology
7.7. Describe the Call Center Environment and Technician Responsibilities
Instructional Methods
This course teaches students through lectures, demonstrations, and instructor-led discussions. Students are expected to complete required reading assignments prior to each lecture. Students are expected to complete assigned homework during the week that follows that topic’s lecture and to arrive prepared to discuss homework at the beginning of the following week’s class.

Course Policies

Attendance: You are expected to attend classes regularly; unexcused absences may result in a failing grade. You are responsible for coordinating absences and the possibility of arranging to make up missed work with the instructor prior to the absence.

If an unforeseen circumstance prevents you from attending class you are expected to contact the instructor via email or phone prior to the start of the next class.

If you are required to participate in either (a) military or (b) UAF-sponsored activities that will cause you to miss class, you must notify your instructor as soon as possible of your absence. You must notify your instructor of all scheduled UAF-required absences for the semester (e.g., travel to athletic events) during the first week of classes.

Late Assignments: Late assignments will not be accepted unless arranged with the instructor.

Missed Exams: All chapter exams will be activated for a single attempt one week prior to the final exam. Any chapter exams that you have missed will be active for you to complete during this time period. Final scores for missed exams that are completed after the original activation period will receive a 10% point deduction.

Important Dates: Check the UAF Academic Calendar for important dates related to fee payment, class registration and last day to drop courses. The calendar can be viewed online at: http://www.uaf.edu/catalog/current/acad_calendar.html

Plagiarism/Academic integrity: Plagiarism and cheating are serious offenses and may result in failure on exams, papers, projects, or the course.

Support Services
The TVC Student Assistance and Advising Center provides services that contribute to a successful learning experience and transition to a career. TVC Student Assistance and Advising Center staff recognizes the unique concerns of adult and returning students. Services include pre-admission advising, academic assessment and placement advising, financial aid information and application, and assistance with choosing a major. Students can receive ongoing academic advising, degree planning and assistance with course selections.

Services are available by appointment and on a walk-in basis. Appointments can be scheduled by calling 455-2800 or students can go to the UAF Tanana Valley Campus Center, 604 Barnette Street, room 110.

Disability Services
The UAF Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. The instructor will work the Office of Disability Services to provide reasonable accommodations to students with disabilities that have been documented through the UAF Office of Disability Services. Information about available services is available online at http://www.uaf.edu/disability/. The office can be reached by phone at 474-7043 or students can go to 203 WHIT on the UAF main campus.
Evaluation:
Final grades are calculated from the points earned in the following areas:

Chapter Assignments ............................................................................................................ 15%
Chapter assignments will provide an opportunity for students to practice and apply the knowledge and skills covered through class lectures and readings. Students will need to download assignment from the class site on Blackboard; complete the assignment as instructed; and finally, uploaded the completed assignment to the class site on Blackboard for instructor comments and evaluation.

Chapter Assessments ............................................................................................................ 25%
Chapter Assessments are designed to reinforce and measure retention of information covered in reading assignments and in lecture. You will need to log on to the Cisco Networking Academy site to take these exams at: http://cisco.netacad.net.
- Each chapter assessment will be active for one week after the lecture for that chapter has completed.
- You will be allowed two attempts for each chapter assessment during the activation period. If you are not satisfied with your score on your first attempt of a chapter assessment, you can choose to retake the assessment during the activation period for that assessment. If you choose to retake an assessment, your first score will be permanently deleted and replaced with the score earned during the second attempt.
- See course policies for information about missed exams.

Final Exam ............................................................................................................................. 60%
The final exam will consist of two parts. Part 1 is a comprehensive written exam designed to provide an assessment of the student’s use and retention of course material covered in weeks 1-14. Part 2 is a scenario-based problem designed to provide an assessment of the student’s ability to apply the skills and knowledge covered in weeks 1-14 of the course.

Letter grades for the course will be determined as follows and will reflect the Grading System and Grade Point Average Computation policy stated in the current UAF Catalog.

<table>
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<tr>
<th>Grade</th>
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<tr>
<td>A+</td>
<td>100–97%</td>
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<tr>
<td>A</td>
<td>96.9–93%</td>
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<tr>
<td>A-</td>
<td>92.9–90%</td>
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<td>B+</td>
<td>89–87%</td>
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<td>79–77%</td>
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<td>C-</td>
<td>72.9–70%</td>
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Withdrawal – Course withdrawals may be either student-initiated or faculty-initiated. A faculty-initiated withdrawal will be initiated if you don't meet prerequisites for a course or if you haven't participated substantially in the course. An attempt will be made to contact students prior to initiating a faculty-initiated withdrawal. It is the responsibility of the student to maintain current contact information (phone number and email address) within UA Online system.

Incomplete - An incomplete is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student’s control, such as sickness, has not been able to complete the course during the regular semester. An incomplete will only be assigned in a case when the student is current in the class until at least the last three weeks of the course. Negligence or indifference is not acceptable reasons for an “I” grade. If an incomplete assigned, it must be made up within one year or it will automatically be changed to an “F” grade.
Course Calendar:
The following course calendar provides a weekly schedule of major course topics, reading assignments, homework assignments, and quizzes and exams. Students are expected to complete the reading assignment prior to the week in which the assignment is listed. Homework assignments are to be completed outside of schedule class time during the week after the course topic has been covered in class. Students should be prepared to discuss homework at the beginning of the following class.

Week 1 – Class 1

Reading Assignment: Chapter 1 Introduction to the Personal Computer
Chapter 2 Safe Procedures and Tool Use

Topics: IT Industry Certifications; Computer Systems and Computer System Components--cases and power supplies; motherboards, CPUs, cooling systems, ROM and RAM, adapter cards, storage drives; ports and cables; input devices; output devices; system resources; General Safety Guidelines; Fire Safety Guidelines; ESD Protection; Power Fluctuations; Power Protection Devices; Material Safety Data Sheets; Proper Disposal of Components; Hardware Tools; Software Tools; Organizational Tools; Proper Use of Tools

Assignments: Download and complete Ch. 1 & 2 Assignments listed at class site on Blackboard

Week 2 – Class 2

Chapter Assessment: Ch. 1 & 2 Assessment Due

Reading Assignment: Chapter 3 Computer Assembly—Step-by-Step
Chapter 4 Basics of Preventative Maintenance and Troubleshooting

Topics: Power Supply Installation; Motherboard Installation and Attachments; Internal Drives Installation; Adapter Card Installations; Internal Cable Connections; Case Side Panels; External Cable Attachments; Error and Beep Codes; BIOS and BIOS Setup; Purpose of Preventative Maintenance; Steps in the Troubleshooting Process

Assignments: Download and complete Ch. 3 & 4 Assignments listed at class site on Blackboard

Week 3 – Class 3

Chapter Assessment: Ch. 3 & 4 Assessment Due

Reading Assignment: Chapter 5 Fundamental Operating Systems

Topics: Purpose and Characteristics of Operating Systems; Overview of Desktop and Network Operating Systems; Operating System Requirements; Basic Operating System Installation Process; Boot Sequence and Registry Files; Startup Modes; Directory Structures; GUI (Windows) Environments and Components; Administrative Tools; Preventative Maintenance Plans; Scheduled Tasks; Restore Points; Hard Drive Backup Methods; Techniques for Operating Systems; Troubleshooting Operating Systems

Assignments: Download and complete Ch. 5 Assignments listed at class site on Blackboard

Week 4 – Class 4

Chapter Assessment: Ch. 5 Assessment Due

Reading Assignment: Chapter 6 Fundamental Laptop and Portable Devices

Topics: Common Uses of Laptops, PDAs and Smartphones; Components of a Laptop; Compare Desktop and Laptop Components; Power Settings; Mobile Phone Standards; Cleaning Procedures; Optimal Operating Environments; Common Laptop Problems and Solutions

Assignments: Download and complete Ch. 6 Assignments listed at class site on Blackboard
Week 5 – Class 5

Chapter Assessment: Ch. 6 Assessment Due

Reading Assignment: Chapter 7 Fundamental Printers and Scanners

Topics: Printer Characteristics and Capabilities; Printer-to-Computer Interfaces; Laser Printers; Impact Printers; Inkjet Printers; Solid-Ink Printers; Thermal and Dye-Sublimation Printers; Printer Installation; Printer Drivers, Firmware, Memory; Scanner Types, Resolution and Interfaces; Scanner Installation and Configuration; Basic Printer and Scanner Maintenance; Troubleshooting Printers and Scanners

Assignments: Download and complete Ch. 7 Assignments listed at class site on Blackboard

Week 6 – Class 6

Chapter Assessment: Ch. 7 Assessment Due

Reading Assignment: Chapter 8 Fundamental Networks

Topics: Overview and Benefits of Computer Networks; Types of Networks; Bandwidth and Data Transmission; IP Addressing Overview; Address Configuration Methods; Internet Protocol and Application Overview; Physical Components of a Network – hubs, bridges and switches, routers, wireless access points, multipurpose devices; cable types; Overview of LAN Topologies and Architectures; Standards Organizations; Ethernet Standards; OSI and TCP/IP Data Models; NIC and Modem Configuration; Network Connectivity Technologies—POTS, ISDN, DSL, Cable, Satellite; Basic Network Maintenance and Troubleshooting

Assignments: Download and complete Ch. 8 Assignments listed at class site on Blackboard

Week 7 – Class 7

Chapter Assessment: Ch. 8 Assessment Due

Reading Assignment: Chapter 9 Fundamental Security

Topics: Importance of Security; Viruses, Works and Trojan Horses; Web Security; Adware, Spyware and Malware; Denial of Service; Spam and Popup Windows; Social Engineering; TCP/IP Attacks; Hardware Deconstruction and Recycling; Security Procedures; Anti-virus, Spyware and Adware Software and Signature Files; Operating System Service Packs and Security Patches; Troubleshooting Security Issues

Assignments: Download and complete Ch. 9 Assignments listed at class site on Blackboard

Week 8 – Class 8

Chapter Assessment: Ch. 9 Assessment Due

Reading Assignment: Chapter 10 Communication Skills

Topics: Relationship Between Communication and Troubleshooting; Good Communication Skills and Professional Behavior; Focusing the Customer on the Problem; Strategies to Working with Different Customer Personality Types; Proper Netiquette; Workstation Ergonomics; Time-Management; Stress-Management; Service Level Agreements (SLA); Business Policies; Ethical Customs; Legal Rules; Call Center Environments; Level-1 and Level-2 Technician Responsibilities

Assignments: Download and complete Ch. 10 Assignments listed at class site on Blackboard
Week 9 – Class 9

*Chapter Assessment:* Ch. 10 Assessment Due

*Reading Assignment:* Chapter 11 Advanced Personal Computers

*Topics:* Overview of Field, Remote, and Bench Technician Job Roles; Potential Safety Hazards and Proper Safety Procedures for Computer Components; Selecting and Replacing Computer Component; Upgrading PC Components and Peripherals; Cleaning Internal Components; Inspecting Computer Components; Applying Troubleshooting Skills to Computer Components and Peripherals

*Assignments:* Download and complete Ch. 11 Assignments listed at class site on Blackboard

Week 10 – Class 10

*Chapter Assessment:* Ch. 11 Assessment Due

*Reading Assignment:* Chapter 12 Introduction to the Personal Computer

*Topics:* Selecting Appropriate Operating Systems Based on Customer Needs; Advanced Installation Methods – unattended installation; image-based installation; remote installation; Create, View, and Manage Disks, Directories, and Files; Operating System Configuration and Optimization; Optimizing Screen Resolution and Video Driver Updates; Multi-boot Systems; Upgrading an Operating System; Scheduled Tasks; Automatic Updates; Restore Points; Advanced Troubleshooting Procedures

*Assignments:* Download and complete Ch. 12 Assignments listed at class site on Blackboard

Week 11 – Class 11

*Chapter Assessment:* Ch. 12 Assessment Due

*Reading Assignment:* Chapter 13 Advanced Laptops and Portable Devices

*Topics:* Wireless Communication Methods for Laptops and Portable Devices; Repairs for Laptops and Portable Devices; Selecting Laptop Components; Scheduling and Performing Maintenance on Laptops; Managing Data Version Control Between Desktops and Laptops; Advanced Laptop Troubleshooting Procedures

*Assignments:* Download and complete Ch. 13 Assignments listed at class site on Blackboard

Week 12 – Class 12

*Chapter Assessment:* Ch. 13 Assessment Due

*Reading Assignment:* Chapter 14 Advanced Printers and Scanners

*Topics:* Safety Hazards and Safety Procedures Associated with Printers and Scanners; Printer Description Language (PDL); Global Printer Options; Per-Document Printer Options; Scanner Calibrations; Printer Calibrations; Verifying Functionality; Sharing Printers on the Network; Printer Upgrades; Scanner Optimization; Printer and Scanner Cleaning Methods; Printer Maintenance Kits; Advanced Troubleshooting Procedures for Printers and Scanners

*Assignments:* Download and complete Ch. 14 Assignments listed at class site on Blackboard
Week 13 – Class 13

Chapter Assessment: Ch. 14 Assessment Due
Reading Assignment: Chapter 15 Advanced Networks
Topics: Safety Hazards and Safety Procedures Related to Networks; Network Design Based on Customer Needs; Selecting Component for the Customer’s Network; Implementing the Customer’s Network; File Sharing; Printer Sharing; Upgrading the Customer’s Network; Connection Testing; Testing and Verification Utilities – ipconfig, ping and tracert
Assignments: Download and complete Ch. 15 Assignments listed at class site on Blackboard

Week 14 – Class 14

Chapter Assessment: Ch. 15 Assessment Due
Reading Assignment: Chapter 16 Advanced Security
Topics: Security Requirements Based on Customer Needs; Local Security Policies; Security Hardware; Security Application Software; Access Control Devices; Firewall Types; Implementing Security Policies; Maintaining Accounts; Data Backup Procedures; Access to Backups; Securing Physical Backup Media; Advanced Security Troubleshooting
Assignments: Download and complete Ch. 16 Assignments listed at class site on Blackboard

Week 15 – Class 15

Chapter Assessment: Ch. 16 Assessment Due
Final Exam: The final exam will consist of two parts. Part 1 is a comprehensive written exam designed to provide an assessment of the student’s use and retention of course material covered in weeks 1-14. Part 2 is a scenario-based problem designed to provide an assessment of the student’s ability to apply the skills and knowledge covered in weeks 1-14 of the course.
Part 1 of the final exam will be administered in during the first 90 minutes of class. Students will begin Part 2 upon completion of their written final exam.