I. **Course Description:**
Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software.

II. **Instructional Materials:**
Students are responsible for having the required text and reliable and consistent access to a computer that meets the minimum requirements to participate in this course.

**Required Text:**
*Guide to Networking Essentials, 6th Edition*
Greg Tomsho Yavapai College
© 2011

**Recommended Text:** N/A

**Other:**
Blackboard access (login)
Howard College email account (login)

III. **Course Requirement:**
**Assignments:** Assignments may consist of lab, research, reports, discussions, and/or practice tests. These assignments are essential to enable students to apply the theory learned from the text, demonstrations, and discussions.

**Assessments:** There are four (4) Assessments associated with this course. Assessments are timed and allow the taker an average of ninety (90) seconds per question. Assessments should not be considered “open book”. Students are expected to complete Assessments without any external aids.
**Final Exam:** The Final Exam is a comprehensive exam. The Final Exam is comprised of questions over the topics covered throughout the course. The Final Exam is taken in the Blackboard Learning System. The Final Exam consists of 50 multiple choice questions. The Final Exam is timed and allows the taker an average of ninety (90) seconds per question.

*Final Exam Exemption:* At the discretion of the instructor, a student with proof of passage of the following Industry Certification Exam, may be exempt from taking the course Final Exam:
- CompTIA A+ Exam 220-902

IV. **Program Outcomes:**
The Howard College CIS program is dedicated to providing student focused education. Students will learn *communication skills* to allow them to work with coworkers and customers effectively. Graduates will gain *skills competencies* that build a foundation of knowledge for use in operating and maintaining computer systems. *Critical thinking skills* are developed in the CIS program through exercises and projects involving real world problems and situations. Graduates will demonstrate *professional growth/development skills* to be gainfully employed within the computer industry.

V. **Student Learning Outcomes:**
Upon successful completion of this course, students will:
1. Distinguish between centralized, client/server, and peer-to-peer systems
2. Identify the characteristics of network topologies
3. Identify and use network transmission media
4. Identify the characteristics of network protocols
5. Explain the OSI model
6. Identify the functions of a network operating system
7. Distinguish between Local Area Networks (LANs) and Wide Area Networks (WANs)

VI. **Attendance Policy/Makeup Work:**

*Attendance Policy*
In addition to the [Howard College Attendance Policy](#) found in the College Catalog, the following guidelines will be adhered to:
- Students should plan to spend at least eight (8) hours each week on coursework and studying for this course.
- Students in an online section are expected to log in with sufficient frequency as to complete the course requirements by the assigned times, and at an acceptable level of performance.
- Students in a face-to-face section are expected to sign the attendance sheet each class day. Students who have not signed the attendance sheet may be counted absent.
- Attendance will be reported in accordance with college policy.

*Makeup Work*
- No makeup work will be offered for this course. All due dates will be strictly adhered to. Time-management is an essential workplace skill and students are expected to complete assignments early when possible.
- If a student misses lab due to a school sanctioned activity, the student must coordinate lab time with the instructor prior to the missed class.
• Computer failure or loss of Internet access is not an acceptable excuse for missing a due date. The Howard College Student Learning Center provides both computers and internet access for all students.

VII. **Class Assessment/Grading:**
Students will be evaluated according to performance in the following categories using the following Grading Scale:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage of Course Grade</th>
<th>Grading Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>50%</td>
<td>A = 90+</td>
</tr>
<tr>
<td>Assessments</td>
<td>25%</td>
<td>B = 80-89</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
<td>C = 70-79</td>
</tr>
</tbody>
</table>

*Instructor note:* Students should keep copies of all work so that any grade discrepancies can be easily and fairly straightened out.

VIII. **Course Content and Rigor:** College-level courses may include controversial, sensitive, and/or adult material. Students are expected to have the readiness for college-level rigor and content.

IX. **Confidentiality in Courses:** Any personal information shared by students in college-level courses, either written or verbal, face-to-face or online, is not considered confidential nor does it fall under FERPA guidelines. Students should refrain from sharing information they do not wish to make public knowledge. The instructor reserves the right to report pertinent information to the appropriate administration if s/he feels that the student may be a danger to him/herself or others.

X. **ADA Statement:** Any student who requires special accommodations due to a documented disability under the provisions of the American with Disabilities Act should contact the District Coordinator the first week of class.

XI. **Course Calendar**

<table>
<thead>
<tr>
<th>Week / Tab</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Course Orientation</td>
</tr>
<tr>
<td>Two</td>
<td>Introduction to Computer Networks</td>
</tr>
<tr>
<td>Three</td>
<td>Network Hardware Essentials</td>
</tr>
<tr>
<td>Four</td>
<td>Network Topologies and Technologies</td>
</tr>
<tr>
<td>Five</td>
<td>Networking Media</td>
</tr>
<tr>
<td>Six</td>
<td>Network Protocols</td>
</tr>
<tr>
<td>Seven</td>
<td>Network Reference Models and Standards</td>
</tr>
<tr>
<td>Eight</td>
<td>Network Hardware in Depth</td>
</tr>
<tr>
<td>Nine</td>
<td>Network Operating Systems</td>
</tr>
<tr>
<td>Ten</td>
<td>Introduction to Network Security</td>
</tr>
<tr>
<td>Eleven</td>
<td>Supporting a Small Business Network</td>
</tr>
<tr>
<td>Twelve</td>
<td>Network Administration and Support</td>
</tr>
<tr>
<td>Thirteen</td>
<td>Enterprise and Wide Area Networks</td>
</tr>
</tbody>
</table>
XII. **Smoking and eCigarettes**: Smoking or other use of tobacco products and use of electronic cigarette devices is prohibited in all Howard County Junior College district facilities and vehicles.

XIII. **Additional Information:**

**Notice Regarding Software**

Software used in this course is used under terms of license agreements with the respective software manufacturer/provider. No part of any software used may be copied, distributed, transmitted, transcribed, stored in a retrieval system, or translated into any human or computer language in any form or by any means, electronic, mechanical, magnetic, manual, or otherwise. Nor may it be disclosed to third parties without the express written permission of the manufacturer/provider.

It is a violation of federal copyright laws to make or use unauthorized copies of software. **Note:** Some operating systems and applications are available to Howard College CIS Students through Microsoft DreamSpark.