## Course Information

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>Phlebotomy</th>
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<tbody>
<tr>
<td>Course Number:</td>
<td>PBT 210</td>
</tr>
<tr>
<td>Section:</td>
<td>IN (internet)</td>
</tr>
<tr>
<td>Day &amp; Time:</td>
<td>This course is available to students through the Webstudy Learning Management System 24 hours/day, 7 days per week throughout the semester</td>
</tr>
<tr>
<td>Location:</td>
<td>This course does not require face-to-face meetings</td>
</tr>
</tbody>
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## Instructor Information

<table>
<thead>
<tr>
<th>Name:</th>
<th>Donna Broderick MS,MLS (ASCP) Associate Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email:</td>
<td><a href="mailto:dbroderick@harcum.edu">dbroderick@harcum.edu</a></td>
</tr>
<tr>
<td>Phone:</td>
<td>610-526-6662</td>
</tr>
<tr>
<td>Availability Outside the Classroom: (Office Hours &amp; Location)</td>
<td>I make every effort to respond to email messages and phone calls within 24 hours Monday-Friday Office Hours: OMGC campus 2nd floor suite. Monday through Thursday 11am-1pm or by appointment</td>
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## Course Credits, Contact Hours, & Description

<table>
<thead>
<tr>
<th>Credits:</th>
<th>3</th>
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<tbody>
<tr>
<td>Contact Hours criteria:</td>
<td>150 minutes of instructional time / week 300 minutes of pre-class or post-class student assignments / week</td>
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<tr>
<td>Lecture</td>
<td>3</td>
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<tr>
<td>Lab</td>
<td>0</td>
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<tr>
<td>Course Length:</td>
<td>January 13-May 2, 2014</td>
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Catalog Course Description: The PBT 210 Phlebotomy course provides students with the theory required for comprehension of the protocol and regulations involving phlebotomy procedures, legal issues, and interaction with patients, clinical lab personnel and other members of the allied health science team. This course prepares students for their phlebotomy practicum rotation by reviewing procedures, equipment, and protocol for venipuncture and capillary puncture. Students participate in “hands-on” experience using phlebotomy practice devices.

Co/Prerequisites: Completion of high school degree

## Desired Student Learning Outcomes

### Institutional/Core:

1. Use oral and written communication effectively
2. Demonstrate comprehension of basic principles of science
3. Use principled moral reasoning to behave ethically

### Program:

1. Graduates will demonstrate effective written and verbal communication skills.
2. Graduates will demonstrate mastery of phlebotomy methodologies, including problem solving and troubleshooting techniques.
3. Graduates will explain the importance of laboratory safety and regulatory compliance
1. Students will demonstrate the ability to recall information applicable to phlebotomy procedures such as venipuncture and capillary puncture, blood collection additives, order of draw, special collections, point of care, specimen handling and processing and adhere
2. Students will correctly recite collection procedures for blood, urine, and miscellaneous body fluids
3. Students will relate the importance of the phlebotomist to the integrity of the results reported by the lab, and identify guidelines to prevent lawsuits
4. Students will apply knowledge of medical terminology, human anatomy and body systems to phlebotomy principles and procedures
5. Students will identify the importance of effective communication skills when relating to patients, and discuss the role of regulation involving HIPAA, CLIA 88, OSHA, and ASCP in maintaining standards of professionalism, confidentiality, and safety
6. Students will apply OSHA safety protocol when demonstrating phlebotomy procedures
7. Students will analyze case studies to identify phlebotomy errors and suggest ways to correct errors

**OBJECTIVES: COGNITIVE, AFFECTIVE, PSYCHOMOTOR**

**Cognitive Objectives:**
1. Compare and contrast past and present practices in phlebotomy
2. Discuss how quality assurance is guided by regulatory agencies
3. Identify how safety, infection control, and first aid apply to phlebotomy procedures
4. Use correct medical terminology to explain lab procedures
5. Identify human anatomy and identify body systems that apply to phlebotomy
6. Describe and the correct use of phlebotomy equipment in performing capillary puncture and venipuncture
7. Explain special phlebotomy collection procedures (blood bank, blood cultures, chain of custody, etc.) and Point-Of-Care testing
8. Examine the role of computers in specimen processing
9. Identify the protocol for handling and testing of non-blood specimens
10. Correlate collection tubes to the correct laboratory department and lab tests

**Affective Objectives:**
1. Manage time effectively to balance the time requirement for an online course (6-9 hours/week)
2. Participate in discussion forums
3. Accept instruction and constructive criticism
4. Demonstrate cooperation on team assignments
5. Maintain academic integrity in submitting assignments, tests, etc.
6. Display respect to the instructor and other students in all communication

**Psychomotor Objectives:**
1. Follow OSHA safety protocol in performing phlebotomy procedures
2. Demonstrate proficiency in demonstrating venipuncture procedures
3. Manipulate phlebotomy equipment with confidence
4. Guide a volunteer in correctly performing a capillary fingerstick puncture

**TEXTBOOKS, MATERIALS, & TECHNOLOGY**

<table>
<thead>
<tr>
<th>TEXTBOOK(S): (NAME, AUTHOR, EDITION, YEAR, ISBN)</th>
<th>CHECK ONE REQUIRED</th>
<th>OPTIONAL</th>
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<tbody>
<tr>
<td>Phlebotomy Essentials 5th Edition</td>
<td>X</td>
<td>Students can choose the textbook or eBook</td>
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<tr>
<td>McCall, Tankersley</td>
<td></td>
<td></td>
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<tr>
<td>ISBN/ISSN: 9781605476377</td>
<td></td>
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<tr>
<td><a href="http://www.lww.com">www.lww.com</a></td>
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<tr>
<th>eBook:</th>
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<tr>
<td>VitalSource ebook for Phlebotomy Essentials</td>
<td>X</td>
<td>Students can choose the textbook or eBook</td>
</tr>
<tr>
<td>ISBN/ISSN: 9781451129335</td>
<td></td>
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<tr>
<td><a href="http://www.lww.com">www.lww.com</a></td>
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**BIBLIOGRAPHIC & DIGITAL RESOURCES**

Phlebotomy Exam Review 4th Edition  
McCall, Tankersley  
ISBN/ISSN: 9781608311200  
e-Book is available

Webpage and youtube resources are available for this course and can be found in each instructional section of the Webstudy Learning Management System

**RESOURCES & SUPPLIES:**

Powerpoint presentations and additional instructor notes will supplement the textbook and can be found in each instructional section of the Webstudy Learning Management System

**TECHNOLOGY NEEDED:**

In all cases, the latest versions of software and operating systems, and high-speed (broadband) internet connections are recommended and will offer the optimum performance of WebStudy. Listed below are minimum requirements.

Minimum Recommended basic hardware and software for Mac and PC users:
- Pentium 3 processor with Windows 2000 or newer (Windows 7 preferred)
- Mac computer with dual processor compatible with Flash player
- OS X or later
- 256 Megabytes of RAM or more (recommended)
- audio card with speakers
- Display with at least 800x600 pixels
- CD-ROM drive
- Online Internet Service Provider required (56k modem or faster connection)
- Latest available versions of Internet Explorer, Firefox, Chrome, Safari, Opera
- Flash Player (current version required)
- Windows Media Player (most recent version)
- Word processing software that can save files in Word or RTF (Microsoft Word highly recommended)
- Depending on your course, you may need other programs such as Adobe Acrobat Reader or a viewer for PowerPoint. These free plug-ins are available by visiting WebStudy’s home page under ‘Download Plugins’.

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**INSTRUCTIONAL METHODS AND COURSE MANAGEMENT**

Computer based delivery using the Webstudy Learning Management System. Instructional methods include text lectures, problem solving, interactive discussions, powerpoint presentations, videos, group project.

This course is structured so that all Discussion Forum posts are to be completed on Wednesdays. Assignments, Quizzes, Case Studies, and Discussion Forum interactions must be submitted by midnight Thursday. Projects will have unique due dates. Course submissions are graded on Fridays. If there is a reason you will not meet a deadline, you are to contact the instructor in advance of the due date.

Online manners are generally known as “netiquette”. As a rule, students should adhere to the same conduct that you would “off-Line” in a face-to-face class:
- Avoid writing messages in all capital letters. THIS IS GENERALLY UNDERSTOOD AS SHOUTING
- Be careful what you are putting in writing. Even if you are writing an email message to one person, assume that anyone could read it. Though you may send an email to a single person, it is very easy to forward your message to hundreds or thousands of people
- Grammar and Spelling matter. Online discourse and email communication demand the same standard of academic communication and use of grammar as face-to-face encounters.
- Never use profanity in any area of an online discourse. The transcripts of online bulletin boards, email, and chat sessions can be saved.
- Avoid unkindly public criticism of others. Publicly criticizing others in an inappropriate way is known as “Flaming.”
- When responding to messages, only use “Reply to All” when you really intend to reply to all.

<table>
<thead>
<tr>
<th>CRITERIA AND METHODS OF EVALUATING STUDENTS</th>
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<tbody>
<tr>
<td><strong>Forum Discussions</strong></td>
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<tr>
<td><strong>Short Answer Assignment Questions</strong></td>
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<tr>
<td><strong>Case Study Analysis</strong></td>
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<td><strong>Chapter Quizzes</strong></td>
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<td><strong>Mid Term Exam</strong></td>
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<td><strong>Final Comprehensive Exam</strong></td>
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<td><strong>Projects:</strong></td>
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<tr>
<td>Tourniquet Tying Video</td>
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<td>Venipuncture Video</td>
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<td>Fingerstick Puncture Video</td>
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<td>Urine Collection Poster Project</td>
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Per 2014 College Catalog

<table>
<thead>
<tr>
<th>WEEKLY TOPICAL CLASS MEETING OUTLINE &amp; LEARNING OUTCOMES:</th>
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<tbody>
<tr>
<td><strong>I = INSTITUTIONAL/CORE   P = PROGRAM  C = COURSE</strong></td>
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<thead>
<tr>
<th>MEETING</th>
<th>DESCRIPTION OF CONTENT / LEARNING OUTCOMES SUPPORTED</th>
<th>SCHEDULED COURSE EVENTS</th>
<th>ASSIGNMENTS/TESTS/DISCUSSIONS/PROJECTS DUE</th>
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<tbody>
<tr>
<td><strong>PREVIEW WEEK JAN 6-12</strong></td>
<td>Learning Objectives : Review the course introduction materials and become familiar with webstudy</td>
<td>Instructor introduction video</td>
<td>Introduction Forum</td>
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<td>Getting Started! Assignment</td>
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<tr>
<td><strong>WEEK 1 JAN 13-19</strong></td>
<td>Learning Objectives : Chapter 1 1. Define the rules of patient confidentiality and role of CLIA 88 2. Describe the evolution of healthcare 3. Relate how professionalism is maintained by the phlebotomist and other laboratory personnel</td>
<td>Chap 1 Powerpoint presentation</td>
<td>Discussion forum</td>
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<td>Assignment questions</td>
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<td>Quiz</td>
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<td></td>
<td>Case study interpretations</td>
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<tr>
<td></td>
<td>I1, I6, P1, C3</td>
<td>Textbook readings pages 4-34</td>
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<td>Rubric review</td>
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<tr>
<td><strong>WEEK 2 JAN 20-26</strong></td>
<td>Learning Objectives : Chapter 2 1. Define Tort Law and identify guidelines to avoid lawsuits 2. Identify organizations that set quality assurance standards in healthcare 3. Discuss quality assessment in phlebotomy practice</td>
<td>Chap 2 Powerpoint presentation</td>
<td>Discussion forum</td>
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<td>Assignment questions</td>
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<td>Quiz</td>
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<td>Case study interpretations</td>
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<td>Jan 20: MLK Day of Service</td>
<td>Textbook readings pages 40-57</td>
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<td>Jan 24: Last Day of drop/add</td>
<td>Read legal issues article</td>
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<td>I6, P4, C3</td>
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</table>
| WEEK 3 | JAN 27-FEB 2 | Learning Objectives: Chapter 3  
1. Evaluate ways to break the chain of infection  
2. State the purpose of the OSHA Bloodborne Pathogen standard  
3. Identify ways to maintain electrical, fire, radiation and chemical safety P4, C5, C6 | ▪ Chap 3 Powerpoint presentation  
▪ Textbook readings pages 65-102  
▪ Bloodborne Pathogen Video | ▪ Discussion forum  
▪ Assignment questions  
▪ Quiz  
▪ Case study interpretations |
| WEEK 4 | FEB 3-9 | Learning Objectives: Chapter 4  
1. Identify basic word elements and describe how combining vowels are used in medical terminology  
2. Interpret common abbreviations used in healthcare practice C4 | ▪ Chap 4 Powerpoint presentation  
▪ Textbook readings pages 108-117  
▪ View medical terminology video | ▪ Discussion forum  
▪ Assignment questions  
▪ Quiz  
▪ Case study interpretations |
| WEEK 5 | FEB 10-16 | Learning Objectives: Chapter 5  
1. Define directional terms and planes used to orient the human body  
2. Discuss the function of the body systems: skeletal, muscular, integumentary, nervous, endocrine, digestive, male / female reproductive, urinary, respiratory I4 | ▪ Chap 4 Powerpoint presentation  
▪ Textbook readings pages 122-150 | ▪ Discussion forum  
▪ Assignment questions  
▪ Quiz  
▪ Case study interpretations |
| WEEK 6 | FEB 17-23 | Learning Objectives: Chapter 6  
1. Explain the function of the heart and relate its importance to the circulatory system  
2. Identify the structures of the heart and trace the flow of blood through the heart  
3. Identify the 4 ABO Blood Groups and discuss the significance of the D antigen in blood typing  
4. Define the hemostatic process  
5. Explain the function of the lymphatic system  
6. Correlate diseases affecting the circulatory, hemostatic and lymphatic systems to laboratory results C4 | ▪ Chap 6 Powerpoint presentation  
▪ Textbook readings pages 154-186  
▪ View hemostasis video  
▪ Review lymphatic system diagram | ▪ Discussion forum  
▪ Assignment questions  
▪ Quiz  
▪ Case study interpretations |
| WEEK 7 | FEB 24-MARCH 2 | Mid-Term Exam Week | Take Mid-term Exam | Mid-Term Exam Pre-test  
Take Mid-term Exam |
| WEEK 8 | MARCH 3-9 | Learning Objectives: Chapter 7  
1. Identify the equipment used in phlebotomy procedures and explain the purpose of each piece when performing venipuncture  
2. Explain the purpose for each anticoagulant and distinguish how each tube is identified  
3. Recite the “order of draw” and explain the purpose of this rule P2, C1, C2 | ▪ Chap 7 Powerpoint presentation  
▪ Textbook readings pages 192-221  
▪ Read “Which tube do I draw” material  
▪ View Order of Draw video  
▪ View Butterfly Draw video | ▪ Discussion forum  
▪ Assignment questions  
▪ Quiz  
▪ Case study interpretations |
<table>
<thead>
<tr>
<th>Week/Week</th>
<th>Learning Objectives: Chapter 8</th>
<th>Activities</th>
<th>Important Dates/Notes</th>
</tr>
</thead>
</table>
| March 10-16 | 1. List the 20 steps of the venipuncture procedure  
2. Evaluate how best to prepare a patient for venipuncture and to insure patient identification  
3. Troubleshoot problems that can occur in phlebotomy procedures |  
- Chap 8 Powerpoint presentation  
- Textbook readings pages 226-265  
- View Venipuncture video  
- View Phlebotomy Tutorial  
- Discussion forum  
- Assignment questions  
- Quiz  
- Case study interpretations  
- Tourniquet Tying video | March 14: Last day to withdraw with a “W”  

March 14: Last day to withdraw with a “W” |

| March 17-21 |  
**SPRING BREAK!**  
|  
- Review “Looking Ahead” Materials  
- Complete assignments |  

| March 24-30 |  
**Learning Objectives: Chapter 9**  
1. Discuss procedural error risks and patient complications in phlebotomy and develop ways to effectively deal with these situations  
2. Identify how to collect blood from below an IV line  
3. List the physiological variables that can negatively affect lab test results |  
- Chap 9 Powerpoint presentation  
- Textbook readings pages 284-315  
- Read “Study Guide of Phlebotomy Complications”  
- Discussion forum  
- Assignment questions  
- Quiz  
- Case study interpretations  
| March 24: Summer / Fall registration begins. Contact your advisor |

| March 31-April 6 |  
**Learning Objectives: Chapter 10**  
1. List the 18 steps in obtaining a capillary blood specimen  
2. Identify the area of the finger and heel that is best used for capillary puncture  
3. Discuss how the order of draw differs between capillary and venipuncture specimens |  
- Chap 10 Powerpoint presentation  
- Textbook readings pages 320-344  
- Fingerstick Powerpoint  
- Fingerstick video  
- Heelstick video  
- Discussion forum  
- Assignment questions  
- Quiz  
- Case study interpretations  
- Fingerstick Forum  
- Capillary Puncture Video |

| April 7-13 |  
**Learning Objectives: Chapter 11**  
1. Explain the reason for the special blood collection procedures for blood cultures, glucose tolerance, therapeutic drug monitoring, blood bank, trace metals and lactose tolerance  
2. Evaluate the effectiveness of Point-of-Care testing (POCT) |  
- Chap 11 Powerpoint presentation  
- Textbook readings pages 358-400  
- View Blood Culture Videos, Part 1 and 2  
- Read “Info on Trace Metals” document  
- Read “POCT testing procedures” document  
- Read “Why is POCT important” document  
- Discussion forum  
- Assignment questions  
- Quiz  
- Case study interpretations |
| WEEK 13  
APRIL  
14-20 | Learning Objectives: Chapter 12  
1. Discuss the various uses of computer hardware and software as a tool in healthcare.  
Demonstrate, using a flow chart, the steps a LIS uses in processing specimens.  
2. Explain the importance of proper specimen handling in maintaining specimen integrity.  
C3 | • Chap 12 Powerpoint presentation  
• Textbook readings pages 412-432  
• View Sunquest LIS video  
• View centrifuge video | • Discussion forum  
• Assignment questions  
• Quiz  
• Case study interpretations |
| WEEKS  
14  
APRIL  
21-27 | Learning Objectives: Chapter 13  
1. Identify the most common non-blood specimens analyzed in the clinical lab and detail the collection criteria for each non-blood specimen except for urine.  
2. Differentiate the collection protocol for these urine specimens: regular voided, midstream, midstream clean catch, catheterized, suprapubic aspiration, and pediatric.  
3. Explain the importance of proper specimen handling in maintaining specimen integrity.  
C2, C3 | • Chap 13 Powerpoint presentation  
• Textbook readings pages 436-450  
• View Urine Collection video  
• Read “Urine Collection Overview” document  
• Read “FAQ’s on Hair Drug Testing” document | • Discussion forum  
• Assignment questions  
• Quiz  
• Case study interpretations  
• Team Project Presentations |
| WEEK 15  
APRIL  
28-MAY  
2 | No learning objectives this week | Completion of course requirements | Phlebotomy Video and Reflection  
Final Exam Pre-test  
Course Evaluations  
Comprehensive Final Exam |

**Note:** The above class outline is subject to change at the instructor’s discretion.

### College Policies and Contacts

| Attendance Policy: | Logging into Webstudy on a regular basis is critical for meeting the student learning outcomes and successful completion of this course. Attendance will be monitored and recorded according to your participation in course activities and completion of assignments. |
| Accommodations: | For assistance with disabilities contact:  
Dr. Richard Cooper  
Office of Disability Services  
Academic Center  
Phone: 610-526-6036  
Email: rcooper@harcum.edu |
| Academic Integrity: | The Harcum College Academic Honesty Policy strives to encourage a dynamic, open and honest intellectual climate based on the personal and academic integrity of all members. It is the responsibility of students to help maintain this community of academic integrity. Students shall not receive credit for work that is not a product of their own efforts. Academic dishonesty includes, but is not limited to, cheating, information falsification or fabrication, theft or destruction of intellectual property, facilitation of academic dishonesty, inappropriate collaboration, or plagiarism. (For this course, defined as the reproduction of direct quotes or ideas without citation.) Anything you write for an assignment or paper that is not public knowledge or your own personal opinion or experience MUST have a citation. |
| College Department Contacts: | Library: Academic Center 610-526-6085  
Educational Support Services: Academic Center 610-526-6052  
Educational Success Center: Academic Center 610-526-6103 |
### Instructor Policies

<table>
<thead>
<tr>
<th><strong>Turnitin</strong></th>
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<tr>
<td>Students enrolled in this course may be required to submit or have submitted by the Instructor papers, assignments and/or projects online to Turnitin.com for originality checking and for the detection of plagiarism. Turnitin.com is only a tool for detecting textual similarities. The Instructor retains responsibility for any judgment of plagiarism. All submitted student work will be included, always without your name and any personal information, as source documents in the Turnitin.com reference database solely for the purpose of detecting if someone else has plagiarized your work. When you set up your individual account with Turnitin.com for this course, make sure you understand and consent to all system terms. Contact your Instructor privately with any questions.</td>
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