

MEDA 1800 Principles of Phlebotomy Syllabus

Credit Hours:	4 credits (Lecture 3cr., Lab 2cr.)		
Instructor:	Jessica Heny MSN, RN Visiting Instructor of Allied Health Office: YB 159 Office hours: By Appointment Office phone: (307) 754-6494 e-mail address: jessica.heny@nwc.edu		
Prerequisite:	CPR (AHA BLS Certified). Immunizations, TB test, and clinical requirements uploaded in CastleBranch.		
Required Textbook:	<p>*I recommend purchasing Cengage Unlimited to save money especially if taking any other Allied Health Courses.</p> <p>Cengage Unlimited ISBN – Instant Access Code: <table border="1" style="width: 100%;"> <tr> <td style="width: 60%;">9780357700013</td> <td>\$179.99 / Cengage Unlimited - 12 months / one-year</td> </tr> </table> </p> <p>Alternative if not purchasing Cengage Unlimited:</p> <p>Hoeltke Phlebotomy MindTap ISBN Hoeltke - MindTap Medical Assisting, 2 terms (12 months) Printed Access Card for Hoeltke's The Complete Textbook of Phlebotomy, 5th 9781337284301</p>	9780357700013	\$179.99 / Cengage Unlimited - 12 months / one-year
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Goal:	The goal of this course is to provide the student with the basic knowledge necessary to perform safe patient care within the legal and ethical boundaries of the role of phlebotomist. At the conclusion of the course, the student will be eligible to become certified in phlebotomy.		
Course Description:	<p>Students learn the practice of phlebotomy and are provided with the knowledge and necessary skills to perform a variety of blood collection methods using proper techniques and precautions. Emphasis will be placed on infection prevention, universal precautions, proper patient identification, specimen acquisition, handling, and processing. Quality assurance, professional conduct, and federal regulatory issues will be covered as well. Students will rotate through a hospital laboratory for operational and clinical experience to prepare them to perform, prepare, and process specimens. (3 hrs lec, 2 hrs lab) 4.0 Credits</p> <p>**This course requires online coursework, 16 contact hours of face-to-face lab per semester and 32 clock hours of on-site clinical experiences**</p>		

MEDA 1800 Principles of Phlebotomy Syllabus

Course Outcomes:	<p>Upon completion of this class, the student will incorporate the cognitive knowledge in performance of the psychomotor and affective domains in their practice as phlebotomists in providing patient care.</p> <ol style="list-style-type: none"> 1. Demonstrate a working comprehension of the technical and procedural aspects of laboratory testing, safety and ethical standards of practice. 2. Explain and apply basic principles of medical terminology, safety measures, universal precautions, infection control and potential sources of error as they relate to standard laboratory operating procedures and quality patient care. 3. Demonstrate basic technical skills by following established procedures for collecting and processing biological specimens for analysis. 																					
Methods of Instruction:	<p>Online Coursework Homework Assignments Reading Assignments Discussion Demonstrations /Return Demonstrations Learning labs Clinical practice</p>																					
Methods of Evaluation:	<p>HOMEWORK 25% WEEKLY QUIZ 25% FINAL EXAM 10% LAB 15% CLINICAL 25% LAB PARTICIPATION Satisfactory/Unsatisfactory CLINICAL PARTICIPATION Satisfactory/Unsatisfactory</p>																					
Grading Scale:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Grading Scale (%) (+ or -)</th> </tr> </thead> <tbody> <tr><td>A</td><td style="text-align: center;">= 95-100%</td></tr> <tr><td>A-</td><td style="text-align: center;">= 90-94%</td></tr> <tr><td>B+</td><td style="text-align: center;">= 87-89%</td></tr> <tr><td>B</td><td style="text-align: center;">= 84-86%</td></tr> <tr><td>B-</td><td style="text-align: center;">= 80-83%</td></tr> <tr><td>C+</td><td style="text-align: center;">= 77-79%</td></tr> <tr><td>C</td><td style="text-align: center;">= 74-76%</td></tr> <tr><td>C-</td><td style="text-align: center;">= 70-73%</td></tr> <tr><td>D+</td><td style="text-align: center;">= 67-69%</td></tr> </tbody> </table>	Grading Scale (%) (+ or -)		A	= 95-100%	A-	= 90-94%	B+	= 87-89%	B	= 84-86%	B-	= 80-83%	C+	= 77-79%	C	= 74-76%	C-	= 70-73%	D+	= 67-69%	
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MEDA 1800 Principles of Phlebotomy Syllabus

	<p>D = 64-66%</p> <p>D- = 60-63%</p> <p>F = below 60%</p>	
	<p style="text-align: center;"><i>There will be no extra credit opportunities during this course.</i></p>	
<p>Evaluation of Achievement of Learning Outcomes:</p>	<p>An overall grade of 74% or better must be obtained on quizzes, homework and the final exam to pass the course. After satisfactorily completing this course, the student will be eligible to take the phlebotomy certification exam and will receive instructions on the application process.</p> <p>You must have a 74% average or above in your coursework AND an “S” (satisfactory) in skill evaluation in lab and clinical evaluation with your preceptor, to successfully complete this course. The "S" (satisfactory) is derived from observation/feedback from your instructor or clinical preceptor. The % grade is derived from the scale as noted in this syllabus.</p> <p>Failure to complete the lab portion of this course will result in an automatic “F” failure unless other arrangements are made with the instructor.</p> <p>Failure to achieve a satisfactory in the clinical portion of this course will result in an automatic “F” unless other arrangements are made with the instructor.</p>	
<p>Late Assignments:</p>	<p>Late assignments or Missed Assignments will not be accepted unless prior arrangements have been made.</p>	
<p>Examination Policy:</p>	<p>Students are expected to take all exams on the day(s) they are scheduled. You may not make up a missed exam unless you’ve made prior arrangements with your instructor. Any exam without prior instructor approval will be given a grade of “0”.</p>	
<p>Technology and Media</p>		
<p>Email:</p>	<p>Communication will primarily be through email for this course since the coursework is online. Please plan to communicate with me via email and check your email daily. I check my email often but am occasionally out of service on the weekends.</p>	
<p>Online Coursework:</p>	<p>The coursework for MEDA 1800 is online. It is important that you participate by logging into the course frequently. You must have a properly functioning computer and are responsible for maintaining</p>	

MEDA 1800 Principles of Phlebotomy Syllabus

	proper function of your computer or locating a computer that you can complete your coursework online.
Classroom Devices:	You are welcome to bring devices to class to take notes and refer to your ebook, but if your device becomes a distraction to class, it will be prohibited.
Lab and Clinical Requirements	
Lab Requirements:	As part of this course, medical assistant skill demonstrations will be provided, and the students will have an opportunity to practice these skills in a laboratory setting. Skill performance evaluations will be conducted on each student to determine skill proficiency and are graded as Satisfactory/Unsatisfactory. All Skills must be performed satisfactorily before the student will be allowed to perform skills in the clinical setting. Completion of this requirement is mandatory for progression in this course.
Lab Supplies Needed:	Clinical attire will be required within the laboratory setting. (Please dress appropriately; closed toe shoes are a must). You will also need a watch with a second hand. Supplies kits will be given and if additional supplies are needed during this course, they will be distributed as needed within the laboratory setting.
Lab Schedule:	Laboratory time will be held on designated days and is mandatory for successful course completion. Lab is scheduled on 10/29 and 10/30/21 from 0800-1700 in the Yellowstone Building.
Lab Attendance:	Due to the interactive learning methods and limited opportunity to obtain lab / skill information, student attendance is mandatory for this course. This course requires active participation online and in lab. Therefore, students are expected to attend each assigned lab and will be excused only under the most emergent circumstances. Students with an unavoidable absence must e-mail or leave a voice mail for the instructor as soon as possible regarding their absence. It is not guaranteed that lab skill make-up days may be scheduled.
Pre-Clinical Requirements:	Background checks, drug screening, and immunization requirements must be met before students can attend clinical. Students who are unable to satisfactorily meet the expectations of the background check and drug screening, and/or fail to complete the required immunizations will not be allowed to attend clinical experiences. Students who fail to attend the required clinical experiences are unable to meet the clinical expectations required in this course and will be asked to withdraw from the course.

MEDA 1800 Principles of Phlebotomy Syllabus

Clinical Experiences:	Preceptors are individuals currently working in a medical office that can provide expertise in the medical clinic environment. Preceptors work alongside the student to expose the student to the various duties and responsibilities of the medical assistant. Preceptors serve as a role model to the student and facilitate an environment where students can learn what it means to be a medical assistant in a medical setting. Preceptors are located throughout the NWC service area and students will be assigned to a variety of locations to give students the opportunity to engage in the function of large and small medical settings. Preceptors provide experiences for students to practice hands-on skills and achieve a level of proficiency in patient care. Preceptors are chosen in collaboration with surrounding clinical institutions and are based on criteria outlined in the Preceptor Handbook. Preceptor guided clinical experiences are evaluated according to the 'Preceptor Feedback' form and used to inform the "S/U" Clinical component of the "Methods of Evaluation".
Clinical Dress:	<ul style="list-style-type: none"> • Clean, unwrinkled scrubs • White, grey or black undershirt • Black or White Lab Coat/Scrub Jacket • Disposable Mask for Clinical Rotations • OSHA Grade Eye Protection • Comfortable, well-fitting, closed-toed shoes • Watch with sweeping second-hand or digital second-indicator • Hair must be clean and well-groomed • Good personal hygiene is the responsibility of each student and is respectful of patients and colleagues in the clinical environment. Students are expected to bathe regularly, to conduct proper oral hygiene, and in general to prevent offensive body odors.
Clinical Attendance:	Students are required to acquire their own transportation to and from the clinical assignment site. Students are required to attend all clinical experiences and absences should be avoided. Students with unavoidable absence must e-mail and leave a voice mail for the instructor and preceptor as soon as possible regarding their absence to schedule a makeup time. If the student is unable to reschedule missed clinical days, an incomplete "I" will be given and a timeline will be agreed upon between the student/instructor/preceptor on completion of required clinical hours.
Student Use of Telephones (calls/texting/cameras):	Cell phones are to be turned off and put away during all learning activities. Cell phones may not be on person while in clinical experiences. The instructor reserves the right to keep the phone until

MEDA 1800 Principles of Phlebotomy Syllabus

	<p>class, clinical or learning activities are complete if the cell phone is used or visible. The student may not leave class, clinical experience or lab to answer a phone call unless extenuating circumstances necessitate and the student has made arrangements prior to lab/class with the instructor. Personal calls, texting and taking pictures with cell phones, tablets or other camera devices are prohibited during clinical experiences.</p>
<p>Professional Attitude, Conduct, and/or Behavior:</p>	<p>Professional conduct/behavior is expected during lab, clinical and classroom. Unprofessional attitude, conduct and/or behavior in all components is defined as the inability to work productively, constructively and cooperatively with others. Continual antagonism of instructors or classmates, and/or repeatedly causing dissension among others. Face booking and other social media will not take place during classroom/ laboratory experiences. This includes during assignment and testing times as well as other times determined by the discretion of faculty. Consequences for such violations are at the discretion of the faculty. Faculty will use their professional experience and expertise to determine when a student is demonstrating an unacceptable attitude, conduct or behavior. Unprofessional attitude, conduct or behavior is grounds for dismissal from the class. Profanity is considered unprofessional conduct. Students will be required to adhere to national and state standards of practice and to practice within legal and ethical frameworks.</p>
<p>Student Health and Safety Responsibilities:</p>	<p>Students must have the cognitive and physical ability to meet course outcomes and to render care with reasonable skill and safety to clients and self. It is the student's responsibility to advise the faculty of pregnancy, allergy, any acute or chronic health conditions, infectious diseases or any such conditions that may interfere with academic or clinical progress. The faculty reserves the right to restrict the student's clinical practice when a health-related problem or potential problem exists. Students must adhere to the health and safety rules and regulations of assigned clinical agencies. In the event of extended interruption of classroom or clinical activities due to hospitalization or health related circumstances, the student will be required to provide a written statement from a qualified health care provider regarding any restrictions or required accommodations before being allowed to resume classroom and clinical activities.</p>
<p>NWC Information:</p>	<p>Please refer to the Universal Syllabus Information that is intended to provide you with quick access to support services and important policies. Please review it.</p>

MEDA 1800 Principles of Phlebotomy Syllabus

Week	Topic(s) Covered	Chapters	Assignment/Test Schedule (for chapters covered in class)	Lesson Objectives
Week 1: Ch. 1-2	Introduction to Phlebotomy	Ch. 1	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Explain why blood is collected by the phlebotomist. 2. Outline the phlebotomist's responsibilities to the patient. 3. Identify departments within the hospital and explain their function. 4. Identify each section of the laboratory and give examples of tests that would be performed in that section. 5. Identify members of the laboratory staff; describe the duties of each of these staff members and their education level. 6. Describe the importance of communication within the laboratory and that with other departments of the hospital. 7. List five patient rights and explain how these patient rights would affect a phlebotomist's job. 8. Explain advance directives and how they can direct a patient's care.
Week 1: Ch. 1-2	Safety in Phlebotomy	Ch. 2	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Identify rules of safety that promote safety of the individual and patient. 2. Explain the principle of and procedures for infection control. 3. Describe the proper handwashing technique and when to use it. 4. Explain the infection concept. 5. Explain the differences between disease-specific and category-specific isolation. 6. List the three types of transmission-based precautions. 7. Explain the purpose and scope of standard precautions. 8. State the six major tactics to reduce the risk of exposure to blood-borne pathogens.

MEDA 1800 Principles of Phlebotomy Syllabus

				<ol style="list-style-type: none"> 9. Explain the concerns regarding latex gloves. 10. Describe precautionary measures and actions to be taken with accidental needle punctures. 11. Explain the purpose of material safety data sheets (MSDSs).
Week 2: Ch. 3-4	Basic Human Anatomy and Physiology	Ch. 3	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Describe how a person would be positioned to describe the specific location of one body part in relationship to another. 2. Describe the characteristics of different types of body systems. 3. Identify each of the cell structures and their purpose. 4. Identify the four tissues and where each type of tissue can be found. 5. Explain the purpose of the integumentary system and how this system changes in an older patient in ways that affect how a phlebotomist performs a venipuncture. 6. Give a short explanation of the purpose of the skeletal, muscular, nervous, and respiratory systems. 7. Explain types of tests that can determine the function of the urinary system. 8. List the types of devices the phlebotomist needs to be aware of when collecting blood from a patient on dialysis. 9. Identify and explain the activities that take place in the digestive system for food processing. 10. Identify the most common disorder of the endocrine system. 11. Explain some of the problems a patient can have with the reproductive system. 12. Explain the purpose of the lymph system.
Week 2: Ch. 3-4	Anatomy and Physiology of the Circulatory System	Ch. 4	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Describe the characteristics of different types of blood cells. 2. Describe the major difference between the walls of the arteries and the walls of the veins.

MEDA 1800 Principles of Phlebotomy Syllabus

				<ol style="list-style-type: none"> 3. Differentiate between serum and plasma. 4. Name the parts of the heart and describe their function. 5. Trace the flow of blood through the heart. 6. Locate the veins in the arm and explain how each would be used in venipuncture. 7. Explain systolic and diastolic pressure. 8. Explain the conductive system of the heart.
Week 3: Ch. 5-6	Phlebotomy Equipment	Ch. 5	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Describe the basic units of the metric system. 2. Describe the proper use of syringes in sample collection. 3. State the relationship between bore size and the gauge of the needle. 4. Explain the principle of the evacuated system. 5. State the manner in which the following anticoagulants prevent coagulation: fluoride/oxalate, citrates, EDTA, and heparin. 6. Name the anticoagulant associated with the following color-coded tubes: blue, gray, green, and lavender. 7. State the anticoagulant that requires a 1:9 ratio of anticoagulant to blood. 8. State the purpose of the following additives: silicon coating, silica particles, and thixotropic gel. 9. Describe the three basic types of tourniquets. 10. Explain how a tourniquet makes the veins more prominent. 11. Define <i>hemoconcentration</i>. 12. Describe the different type of lancets that may be used in capillary puncture. 13. List the different types of microcollection equipment available.
Week 3: Ch. 5-6	Phlebotomy Technique	Ch. 6	- Reading and PPT's	<ol style="list-style-type: none"> 1. Explain the three skills used in collecting blood and how a

MEDA 1800 Principles of Phlebotomy Syllabus

			<ul style="list-style-type: none"> - Homework - Quizzes 	<p>phlebotomist needs to use each of these skills.</p> <ol style="list-style-type: none"> 2. Explain the importance of correct patient identification, complete sample labeling, and proper accessioning. Discuss what happens when these rules are not followed. 3. List the components necessary for proper sample labeling. Discuss what can happen if a sample is not labeled properly. 4. List four common venipuncture sites and the advantages and disadvantages of each site. 5. List four techniques that can make veins easier to see. 6. Describe the step-by-step procedure for drawing blood with a syringe, an evacuated tube, and a butterfly system. 7. Understand the effect hemolysis will have on a blood sample and how the phlebotomist can prevent hemolysis from occurring. 8. Explain hemoconcentration, how it affects the blood sample, and how to prevent it. 9. Explain four precautions in blood collection and why the phlebotomist needs to be concerned. 10. Locate veins in the feet and ankles, and explain why they are not recommended for routine use. 11. Explain how to handle different patient reactions to venipuncture. 12. Name and explain the common causes of phlebotomy complications that result in a failed venipuncture. 13. Discuss the three blood collection alternatives when a patient has an IV running in one arm. 14. Describe the proper technique for drawing from an indwelling line. 15. Describe the equipment used and preparation of equipment for arterial puncture. 16. Describe the Allen test. 17. Locate the four arterial sites and explain the order of preference for arterial puncture.
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MEDA 1800 Principles of Phlebotomy Syllabus

				18. Explain the proper procedure for handling arterial blood.
Week 4: Ch. 7-8	The Challenge Of Phlebotomy	Ch. 7	- Reading and PPT's - Homework - Quizzes	<ol style="list-style-type: none"> 1. Explain the importance of communication with and reassurance of parents and child. 2. Explain the importance of proper holding techniques on children during venipuncture. 3. Explain the techniques used in venipuncture in children. 4. Describe the composition of capillary puncture blood. 5. Describe capillary puncture equipment. 6. State why it is important to puncture across the fingerprint line. 7. Describe the capillary puncture collection sites and when each site should be used. 8. List some of the limitations of collecting blood from the finger or heel. 9. Describe the step-by-step procedure for drawing blood by fingerstick and heelstick. 10. Explain the order of draw for microcollection. 11. Explain why hemolysis is more likely in capillary puncture blood. 12. Explain what to do after drawing blood from a patient receiving anticoagulant therapy. 13. Explain the best way to handle a patient who is resistant. 14. Describe what the phlebotomist must do before a sample from an isolation patient is drawn.
Week 4: Ch. 7-8	Caring for the Pediatric Patient	Ch. 8	- Reading and PPT's - Homework - Quizzes	<ol style="list-style-type: none"> 1. Demonstrate the keys to caring for a pediatric patient. 2. Explain how differences in the age of a child can determine how he or she understands illness. 3. Explain methods available to ease the pain of venipuncture in a child. 4. Demonstrate distraction techniques for a child.

MEDA 1800 Principles of Phlebotomy Syllabus

				<ol style="list-style-type: none"> 5. Understand the procedure for collecting blood from the dorsal vein. 6. Demonstrate how to properly restrain a child.
<p>Week 5: Ch. 9-10</p>	<p>Sample Considerations and Special Procedures</p>	<p>Ch. 9</p>	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Explain the importance of a fasting sample. 2. Explain the importance of a timed sample. 3. Explain the importance of sample drawing in drug therapy monitoring. 4. Describe how a stat sample should be handled. 5. Describe the proper procedure for making a blood smear. 6. List the characteristics of a good slide. 7. Explain the procedure for a glucose tolerance test and the two variations in how the glucose drink is administered. 8. Describe the correct procedure for a bleeding time test. 9. Explain why a bleeding time test is performed. 10. Explain the importance of proper skin antisepsis in blood culture collection. 11. List at least four factors that will affect laboratory test values. 12. Describe the proper procedure for administering a tuberculin skin test. 13. Describe the sample collection and handling procedures for urinalysis samples. 14. Describe the proper collection procedure for semen samples. 15. Describe the proper procedure for throat culture. 16. Describe the proper procedure for sputum sample collection. 17. Describe the precautions necessary in transportation of samples.
<p>Week 5: Ch. 9-10</p>	<p>Sample Preparation and Handling</p>	<p>Ch. 10</p>	<ul style="list-style-type: none"> - Reading and PPT's - Homework 	<ol style="list-style-type: none"> 1. Know what preexamination errors can occur with a sample and how these errors can affect a patient's outcome.

MEDA 1800 Principles of Phlebotomy Syllabus

			- Quizzes	<ol style="list-style-type: none"> 2. Explain how exercise and stress can affect laboratory results. 3. List the tests that require chilling or warming and explain why these steps are necessary. 4. Describe situations that would result in re-collection or rejection of a sample. 5. Describe methods of transporting samples.
Week 6: Ch. 11-12	Customer Service	Ch. 11	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Know the three expectations to meet quality service. 2. Give types of nonverbal communication. 3. Be able to follow the nine do's and don'ts of customer service. 4. Explain the five different ways a person will approach conflict. 5. Explain ways to cope with stress. 6. Understand why a patient chooses a particular location to have laboratory work completed.
Week 6: Ch. 11-12	Compliance: Legal and Ethical Issues	Ch. 12	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Explain the laws that regulate compliance. 2. Discuss why it is essential that laboratories maintain compliance and follow these laws. 3. Define ethics and describe a situation in which a phlebotomist would need to make an ethical decision. 4. Discuss the best way for a phlebotomist to avoid injury-related lawsuits.
Week 7: Ch. 13	Competency	Ch. 13	<ul style="list-style-type: none"> - Reading and PPT's - Homework - Quizzes 	<ol style="list-style-type: none"> 1. Understand what knowledge and skills are necessary to be competent in phlebotomy. 2. Be able to set up a competency training program and know what to include.
Week 8	Lab	Lab	Lab Days	Lab Days

MEDA 1800 Principles of Phlebotomy Syllabus

Week 9-14	Clinical Rotations and Exam Prep		Clinical Rotations and Exam Prep	Clinical Rotations and Exam Prep
14	Review/Final Exam		FINAL EXAM	
15	Exam	Exam	CERTIFICATION EXAM	CERTIFICATION EXAM

**MEDA 1800 Principles
of Phlebotomy
Syllabus**

Memorandum of Understanding

Phlebotomy

I have received the course outline, course requirements and course syllabi for Phlebotomy. I have reviewed and understand the course requirements and how the grades will be computed. I understand the risks inherent in the laboratory and voluntarily accept the responsibility to protect the health and safety of myself and others by following the protocols outlined by the clinical facility and NWC Student Handbook.

Student signature: _____ Date:
