Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	290

Faculty	Wanda Duncan
Office	AS 155
Phone	(903) 782-0378
email	wduncan@parisjc.edu

Course	ACNT 1303
Title	Introduction to Accounting I

Description

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll.

Textbooks

College Accounting, Chapters 1-9, 23rd edition.
Heintz & Perry
Loose-leaf Version + CengageNOWv2, 1 term Printed Access Card
Cengage Learning
ISBN: 978-0-357-25240-6

Microsoft Office 365 software (includes Word, Excel, Access, and PowerPoint) must be installed on your home computer if you work on your assignments at home. If you work on your assignments on campus, the software is already installed on those computers.

Student Learning Outcomes (SLO)

Define accounting terminology; analyze and record business transactions in a manual and computerized environment; complete the accounting cycle; prepare financial statements; and apply accounting concepts related to cash and payroll.

Schedule

Week 1: IceBreaker Discussion Board, Syllabus Quiz, Register for CengageNOWv2
Week 2: Chapter 1
Week 3: Chapter 2
Week 4: Chapter 3
Week 5: Chapter 4
Week 6: Chapter 5
Week 7: Chapter 5 Appendix
Week 8: Chapter 6
Week 9: Chapter 6 Appendix
Week 10: Practice Final Exam
Week 11: Final Exam

This schedule is a rough guide only and is subject to change as the semester progresses.

Evaluation methods	Grades are based on completion of assessments which include class participation, homework, tests, and final exam. All work will be graded for completeness, accuracy, and punctuality. All work must be submitted by the due date schedule. A grade of zero (0) will be recorded for any assessment which is not submitted. No late assignments accepted. No make-up or extra credit is awarded. Successful learners are good at scheduling their time in an organized manner. Remember that your work can be done from anywhere on any computer that has Internet access and Microsoft Office 365. Discussion Board - 5% Final Exam - 55% Homework - 40%signments Letter grades will be assigned based on the following point scale: 90 - 100 = A 80 - 89 = B 70 - 79 = C 60 - 69 = D 0 - 59 = F Checking your Grade: To check your grades, click “My Grades” tab. BlackBoard may show only the total number of points possible for each assessment and your score. The total points possible for the course may include work which you have not been assigned yet. To turn any score into a percentage, divide the number of points you received by the number of points possible. Viewing Grades: Grades are usually posted in BlackBoard within one week following the due date.

Paris Junior College Syllabus

Year	2023	Faculty	Mario Munguia Jr
Term	Summer 1	Office	
Section	100	Phone	
		email	mmunguia@parisjc.edu

Course	ARTS 1301
Title	Art Appreciation

Description	A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. Three credit hours.
Textbooks	Open resources are used, no textbook required. All materials will be available online in the form of links, power points and videos.
Student Learning Outcomes (SLO)	Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis evaluation and synthesis of information Communication Skills – to include effective development, interpretation and expression of ideas through written, oral and visual communication

Schedule	**Week 1** Terms and Design Elements UNIT #1 INTRO DISCUSSION, Terms, PREHISTORIC ART UNIT #2 CLASSICAL ART- Egyptian, ANCIENT GREECE AND ROME **Week 2** UNIT # 3 BYZANTINE ART, RELIGIOUS ART AND MOSAIC ART UNIT #4 RENAISSANCE ART, Baroque UNIT # 5 IMPRESSIONISM, POST IMPRESSIONISM & CUBISM, DADA **Week 3** UNIT #6 NON-OBJECTIVE ART, ABSTRACT Expressionism UNIT # 7 SURREALISM & DEGENERATE UNIT #8 POP ART Early Contemporary **Week 4** UNIT #9 Contemporary UNIT #10 Installation Art UNIT #11 KINETIC ART **WK 5**
Evaluation methods	Each unit may consist of quizzes, discussions, art projects, written papers and one final assignment to equal 1100 available points for the semester. Quizzes, Discussions, Artwork and Writing Assignments ….1,000 points Final Exam Essay or Artwork……..….100 Points Total Points available…….……...1,100 points 900-1000 points will equal= 90-100 A 800-899 points will equal = 80-89 B 700-799 points will equal = 70-79 C 600-699 points will equal = 60-69 D 599 -0 points will equal = 0-59 = F

Paris Junior College Syllabus

Year	2022-2023
Term	SUMMER I
Section	200

Faculty	Lena Spencer
Office	Art Building Annex III
Phone	903.782.0438
email	lspencer@parisjc.edu

Course	ARTS 1301
Title	Art Appreciation

Description

Description: A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. Three credit hours.

Textbooks

Open resources used, no textbook required. All materials will be available online in the form of links, power points and videos.

Student Learning Outcomes (SLO)

Student Learning Outcomes (Program Level)
1. Demonstrate the ability to recognize in a work of art chosen randomly from any culture or historical period these three examples of design elements: color harmony, use of perspective, and understanding of dimension.

Schedule

UNIT #1 INTRO DISCUSSION, PREHISTORIC ART, GRAFFITI AND MURALS
UNIT #2 CLASSICAL ART- IDEALISM, ANCIENT GREECE AND ROME
UNIT # 3 BYZANTINE ART, RELIGIOUS ART AND MOSAIC ART
UNIT #4 RENAISSANCE ART, HUMANISM, ART GUILDS
UNIT # 5 IMPRESSIONISM, POST IMPRESSIONISM & CUBISM
UNIT #6 NON-OBJECTIVE ART, ABSTRACT ART, REPRESENTATIONAL ART
UNIT # 7 SURREALISM & ABSTRACT EXPRESSIONISM & JUDY PFAFF
UNIT #8 POP ART, POPULAR CULTURE
UNIT #9 TRADITIONAL MEDIUMS IN TWO-DIMENSIONAL ARTWORK
UNIT #10 TRADITIONAL MEDIUMS IN THREE-DIMENSIONAL ARTWORK
UNIT #11 INSTALLATION ART ART 21 ARTISTS
UNIT #12 KINETIC ART
FINAL ASSIGNMENT CHOOSE ARTWORK OR ESSAY OPTION

Evaluation methods	Course Requirements and Evaluation: Each unit may consist of tests, quizzes, discussions, art projects and written papers to equal 1000 available points for the semester. Unit One through Fifteen will total ….900 points Final Exam (Essay or Artwork…….100 Points Total Points available……...1,000 points 900-1000 points will equal= 90-100 A 800-899 points will equal = 80-89 B 700-799 points will equal = 70-79 C 600-699 points will equal = 60-69 D

Paris Junior College Syllabus

Year	2022-2023
Term	Summer I
Section	130

Faculty	Marjorie Pannell
Office	AS 140
Phone	903 782 0360
email	mpannell@parisjc.edu

Course	BCIS 1305
Title	Business Computer Applications

Description

Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet.
3 Credit Hours 2 Lecture Hours 4 Lab Hours

Textbooks

Cengage Unlimited
(4 Months) 978-0-357-70000-6
Course Technology

Student Learning Outcomes (SLO)

Course Objectives:
Upon successful completion of this course, students will:
1. Describe the fundamentals of information technology concepts – hardware, software, security, and privacy.
2. Demonstrate proper file management techniques to manipulate electronic files and folders in local, network, and online environments.
3. Create business documents with word processing software using spelling and grammar check, format and layout, tables, citations, graphics, and mail merge.
4. Create business documents and analyze data with spreadsheet software using
(1) tables, sorting, filtering, charts and graphics, pivot tables, macros; (2) statistical, financial, logical and look-up functions and formulas; and (3) add-ins.
5. Create business multimedia presentations with presentation software using templates, lists, groups, themes, colors, clip art, pictures, tables, transitions, animation, video, charts, and views.
6. Create databases and manage data with database software using tables, fields, relationships, indexes, keys, views, queries, forms, reports, and import/export functions.
7. Integrate business software applications.
8. Use web-based technologies to conduct ethical business research.
9. Use “goal seeking” and “what-if analysis” to solve problems and make adjustments/recommendations in a business environment.

Program Objectives:
Utilize industry standard application software to produce personal, business, and academic reports and presentations.

Demonstrate knowledge of computer industry terminology and jargon.

Schedule	Week 1: Intro to CENGAGE, Fundamentals of Information Technology Concepts and Creating and Modifying a Flyer Week 2: Creating a Research Paper, Word Assessment, and Creating and Editing Presentations with Pictures Week 3: Enhancing Presentations with Shapes and SmartArt, PowerPoint Exam, and Creating a Worksheet and a Chart Week 4: Formulas, Functions, and Formatting, and Working with Large Wordsheets, Charting, and What-If Analysis Week 5: Financial Functions, Data Tables, and Amortization Schedules, Spreadsheet Assessment, and Databases and Database Objects: An Intro Week 6: Querying a Database, Database Assessment, and Final Exam Week 16: Final Exam
Evaluation methods	40% EXAMS 40% Lab Project 20% Quizzes

Paris Junior College Syllabus

Year	2022-2023
Term	Summer II
Section	265

Faculty	Marjorie Pannell
Office	AS 140
Phone	903 782 0360
email	mpannell@parisjc.edu

Course	BCIS 1305
Title	Business Computer Applications

Description

Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet.
3 Credit Hours 2 Lecture Hours 4 Lab Hours

Textbooks

Cengage Unlimited
(4 Months) 978-0-357-70000-6
Course Technology

Student Learning Outcomes (SLO)

Course Objectives:
Upon successful completion of this course, students will:
1. Describe the fundamentals of information technology concepts – hardware, software, security, and privacy.
2. Demonstrate proper file management techniques to manipulate electronic files and folders in local, network, and online environments.
3. Create business documents with word processing software using spelling and grammar check, format and layout, tables, citations, graphics, and mail merge.
4. Create business documents and analyze data with spreadsheet software using
(1) tables, sorting, filtering, charts and graphics, pivot tables, macros; (2) statistical, financial, logical and look-up functions and formulas; and (3) add-ins.
5. Create business multimedia presentations with presentation software using templates, lists, groups, themes, colors, clip art, pictures, tables, transitions, animation, video, charts, and views.
6. Create databases and manage data with database software using tables, fields, relationships, indexes, keys, views, queries, forms, reports, and import/export functions.
7. Integrate business software applications.
8. Use web-based technologies to conduct ethical business research.
9. Use “goal seeking” and “what-if analysis” to solve problems and make adjustments/recommendations in a business environment.

Program Objectives:
Utilize industry standard application software to produce personal, business, and academic reports and presentations.

Demonstrate knowledge of computer industry terminology and jargon.

Schedule	Week 1: Intro to CENGAGE, Fundamentals of Information Technology Concepts and Creating and Modifying a Flyer Week 2: Creating a Research Paper, Word Assessment, and Creating and Editing Presentations with Pictures Week 3: Enhancing Presentations with Shapes and SmartArt, PowerPoint Exam, and Creating a Worksheet and a Chart Week 4: Formulas, Functions, and Formatting, and Working with Large Wordsheets, Charting, and What-If Analysis Week 5: Financial Functions, Data Tables, and Amortization Schedules, Spreadsheet Assessment, and Databases and Database Objects: An Intro Week 6: Querying a Database, Database Assessment, and Final Exam Week 16: Final Exam
Evaluation methods	40% EXAMS 40% Lab Project 20% Quizzes

Paris Junior College Syllabus

Year	2023	Faculty	Jason Taylor
Term	Summer I	Office	MS 210A
Section	200	Phone	903-782-0369
		email	jtaylor@parisjc.edu

Course	BIOL 1322
Title	Nutrtion

Description	A study of the basic principles of Human Nutrition. The major food groups, minerals, and vitamins will be studied.
Textbooks	Wardlaws Contemporary Nutrition 12th ed. Connect Plus Access Code with ebook ISBN#9781260790023
Student Learning Outcomes (SLO)	1. Compare and Contrast the structural and functional roles of the 6 classes of nutrients in the human body. 2. Interpret nutrition facts and ingredient lists on food labels and apply that information to assess foods for nutrient density.
Schedule	Week 1-Chapter 1- Nutrition Food Choices and Health Week 1-Chapter 2- Designing a Healthy Eating Pattern Week 1-Chapter 3-The Human Body: A Nutrition Perspective Week 1-Chapter 3-(Cont.) Week 2-Exam 1 and Chapter 4-Carbohydrates Week 2-Chapter 4(Cont.) and Chapter 5- Lipids Week 2-Chapter 5(Cont.) and Chapter 6-Proteins Week 2-Chapter 6(Cont) and Exam 2 Week 3-Chapter 7-Energy Balance and Weight Control Week 3-Chapter 8-Vitamins Week 3-Chapter 9-Water and Minerals Week 3-Exam 3 and start Chapter 10-Nutrition: Fitness and Sports Week 4-Chapter 10(Cont.)-Nutrition: Fitness and Sports Week 4-Chapter 11-Eating Disorders Week 4-Chapter 12-Protecting Our Food Supply Week 5-Final Exam(Exam 4)

Evaluation methods	Students will be given the following opportunities to demonstrate knowledge of class material. Exams: Exam 1=45 points Exam 2=45 points Exam 3=45 points Exam 4= 45 points Nutrition Calc Plus Project 7 day diet tracking=45 points 2-Introduction Video assignments are 7.5 Syllabus Quizz 10 points Why Study Nutrition video assignment 15 points Chapter quizzes and metric quiz 13 total quizzes are 15 points each Each day a quiz is late will deduct 15% off of your quiz grade.

Paris Junior College Syllabus

Year	2023
Term	Summer
Section	200

Faculty	Jeanmarie Stiles
Office	GC 209
Phone	903-457-8717
email	jstiles@parisjc.edu

Course	BIOL-1408
Title	Bilogy for non-Science Majors

Description

Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and

Textbooks

Inquiry Into Life 16th edition by Sylvia Mader, ISBN 9781264354665.
Loose Leaf textbook with McGraw-Hill Connect access code.

Student Learning Outcomes (SLO)

1. Demonstrate mastery of the processes of science, the scientific method and established scientific knowledge.
2. Demonstrate knowledge of basic terminology and understanding of major biological concepts.
3. Use appropriate laboratory techniques and equipment safely and proficiently

Schedule

Week	Lecture	Lab
1	#1 Assignment: Syllabus Quiz	Virtual Lab Tutorial
1	Ch 2 Homework: Molecules	Lab Safety
1	Ch 3 Homework: Cell Structure	Metric Measurements Lab
1	Metric System Quiz	
1	Unit 1 Exam (ch 2 & 3)	
2	Ch 4 Homework: Cell Membranes	Diffusion Labs
2	Ch 5 Homework: Cell Division	Osmosis Labs
2	Unit 2 Exam (ch 4 & 5)	
3	Ch 6 Homework: Metabolism	Enzymes Labs
3	Ch 7 Homework: Cell Respiration	Cell Respiration Labs
3	Unit 3 Exam (ch 6 & 7)	
4	Ch 8 Homework: Photosynthesis	Photosynthesis Labs
4	Scientific Inquiry Group Project	
4	Ch 9: Homework: Plants	Plant Labs

Evaluation methods	Lecture & Lab: 1000 pts total 360 points Lecture exams & final exam 80 points Scientific Inquiry Group Project 260 points Lecture assignments 300 points Lab assignments in McGraw-Hill Connect

Paris Junior College Syllabus

Year	2023	Faculty	Jeanmarie Stiles
Term	Summer	Office	GC 209
Section	400	Phone	903-457-8717
		email	jstiles@parisjc.edu

Course BIOL-1408

Title Bilogy for non-Science Majors

Description

Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and

Textbooks

Inquiry Into Life 16th edition by Sylvia Mader, ISBN 9781264354665.
Loose Leaf textbook with McGraw-Hill Connect access code.

Student Learning Outcomes (SLO)

1. Demonstrate mastery of the processes of science, the scientific method and established scientific knowledge.
2. Demonstrate knowledge of basic terminology and understanding of major biological concepts.
3. Use appropriate laboratory techniques and equipment safely and proficiently

Schedule

Week	Lecture	Lab
1	#1 Assignment: Syllabus Quiz	Virtual Lab Tutorial
1	Ch 2 Homework: Molecules	Lab Safety
1	Ch 3 Homework: Cell Structure	Metric Measurements Lab
1		Metric System Quiz
1	Unit 1 Exam (ch 2 & 3)	
2	Ch 4 Homework: Cell Membranes	Diffusion Labs
2	Ch 5 Homework: Cell Division	Osmosis Labs
2	Unit 2 Exam (ch 4 & 5)	
3	Ch 6 Homework: Metabolism	Enzymes Labs
3	Ch 7 Homework: Cell Respiration	Cell Respiration Labs
3	Unit 3 Exam (ch 6 & 7)	
4	Ch 8 Homework: Photosynthesis	Photosynthesis Labs
4	Scientific Inquiry Group Project	
4	Ch 9: Homework: Plants	Plant Labs

Evaluation methods	Lecture & Lab: 1000 pts total 360 points Lecture exams & final exam 80 points Scientific Inquiry Group Project 260 points Lecture assignments 300 points Lab assignments in McGraw-Hill Connect

Paris Junior College Syllabus

Year	2023	Faculty	Dr. Jack Brown
Term	Summer 1	Office	MS 210F
Section	130	Phone	903-782-0319
		email	jbrown@parisjc.edu

Course: Biol 2401.130

Title: Anatomy and Physiology 1

Description

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

Textbooks

Hole's Human Anatomy and Physiology with MGH Connect 16th Ed
ISBN 9781264262823

Student Learning Outcomes (SLO)

ACGM Course Learning Outcomes:
Lecture: Upon successful completion of this course, students will:
1. Use anatomical terminology to identify and describe locations of major organs of each system covered.

Schedule

Course Schedules:

June 5 - Introduction to A&P

June 6 – Chemistry of Life

June 7 – Chemistry of Life/The Cell

June 8 – The Cell

June 12 – Exam 1 – Cell Metabolism

June 13 – Cell Metabolism

June 14 – Tissues

June 15 – Integument

Evaluation methods	Course Requirements and Evaluation: 4 Unit Exams□ □40% of course grade Lab – Virtual MGH Connect□ □40% of course grade Bones & Muscles Exam (5% each)□10% of course grade Comprehensive Final Exam□10% of course grade □100% Power of the Final The Final Exam can replace a missed or low Unit Exam score.

Paris Junior College Syllabus		Faculty	Dr. Jack Brown
Year	2023	Office	MS 210F
Term	Summer 1	Phone	903-782-0319
Section	200	email	jbrown@parisjc.edu

Course	Biol 2401.200
Title	Anatomy and Physiology 1

Description	Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.
Textbooks	Hole's Human Anatomy and Physiology with MGH Connect 16th Ed ISBN 9781264262823
Student Learning Outcomes (SLO)	ACGM Course Learning Outcomes: Lecture: Upon successful completion of this course, students will: 1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
Schedule	Course Schedules: Unit1: Covers Ch 1-3 (Intro-Cell) Open from 6/1/22 at 7:00am --- 6/9/22 at 11:59pm Timed Unit 1 Exam – Open from 6/5/21---6/9/21 □ Unit 1 Tips: For each assigned chapter, complete the LS assignment, there is a homework assignment (explained above). I suggest reading each chapter first, taking notes on bold terms and paying careful attention to tables and charts that condense critical concepts in each chapter. Pay special attention to the questions in each homework assignment, many will repeat on your Unit Exams. The Unit Exams are also timed (explained above.) Take your time on the virtual labs and follow the instructions well. Unit 2: Cover Ch 4-6 (Metabolism - Integument) Open from 6/9/22 at 7:00am --- 6/17/22 at 11:59pm

Evaluation methods	Overview of Assignments and Grading MGH Connect Average – 70% Proctored Mid-Term Exam – 15% Proctored Final Exam – 15% Most of your course grade will come from the homework, labs, written work, and Unit Exams found in MGH Connect (70%). Nothing in MGH Connect, including the Exams is proctored, so you may use help in any form to complete these assignments. Many assignments will have more than one attempt, and I will take the highest score in the end, so take advantage of that! If you add up the value of the assignments in MGH, you will find that they total 1000pts. Keep track

Paris Junior College Syllabus

Year	2022-2023	Faculty	Dr. Beverly Kopachena
Term	Summer 1 2023	Office	Online
Section	.200	Phone	903-885-1232
		email	bkopachena@parisjc.edu

Course BIOL 2402

Title Anatomy & Physiology II

Description

Continuation of Biology 2401. A study of the structure and function of the organ systems of the human body. Particular emphasis will be placed on physiology. Core Curriculum satisfied for Natural Lab Sciences. Prerequisite: BIOL 2301 or consent of instructor.

Textbooks

Welsh, Hole's Human Anatomy & Physiology (Connect Access Card), 16th ed. - online access code, includes online assignments and the online textbook; ISBN: 9781264262823

Student Learning Outcomes (SLO)

Lecture:
1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.Lab:

Lab:
1. Apply appropriate safety and ethical standards.
2. Locate and identify anatomical structures.
3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
4. Work collaboratively to perform experiments.
5. Demonstrate the steps involved in the scientific method.
6. Communicate results of scientific investigations, analyze data and formulate conclusions.
7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.

Schedule

Ch. 13 Endocrine System
Ch. 14 Blood
Ch. 15 Cardiovascular System
 Lecture Test 1
Ch. 16 Lymphatic System and Immunity
Ch. 17 Digestive System
Ch. 18 Nutrition and Metabolism
 Lecture Test 2
Ch. 19 Respiratory System
Ch. 20 Urinary System
Ch. 21 Water, Electrolyte, and Acid-Base Balance
 Lecture Test 3
Ch. 22 Reproductive Systems
Ch. 23 Pregnancy, Growth, and Development
Ch. 24 Genetics and Genomics

Evaluation methods	Connect Homework 20% Quizzes 20% Midterm 20% Comprehensive Final Exam 20% Lab grade (lab exercise avg. 50%, practical test 50%) 20%

Paris Junior College Syllabus

Year	2022-2023	Faculty	Dr. Beverly Kopachena
Term	Summer 1 2023	Office	Online
Section	.200	Phone	903-885-1232
		email	bkopachena@parisjc.edu

Course	BIOL 2420
Title	Microbiology for Non Science Majors

Description

This course covers basic microbiology and immunology and is primarily directed at pre-nursing,pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. 4 SCH

Textbooks

Cowan, Microbiology Fundamentals: A Clinical Approach, 4th ed. (Online Access Code ONLY), ISBN: 9781260786033

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:

Lecture: 1. Describe distinctive characteristics and diverse growth requirements of prokaryotic organisms compared to eukaryotic organisms.

2. Provide examples of the impact of microorganisms on agriculture, environment, ecosystem, energy, and human health, including biofilms.

3. Distinguish between mechanisms of physical and chemical agents to control microbial populations.

4. Explain the unique characteristics of bacterial metabolism and bacterial genetics.

5. Describe evidence for the evolution of cells, organelles, and major metabolic pathways from early prokaryotes and how phylogenetic trees reflect evolutionary relationships.

6. Compare characteristics and replication of acellular infectious agents (viruses and prions) with characteristics and reproduction of cellular infectious agents (prokaryotes and eukaryotes).

7. Describe functions of host defenses and the immune system in combating infectious diseases and explain how immunizations protect against specific diseases.

8. Explain transmission and virulence mechanisms of cellular and acellular infectious agents.

Lab: 1. Use and comply with laboratory safety rules, procedures, and universal precautions.

2. Demonstrate proficient use of a compound light microscope.

3. Describe and prepare widely used stains and wet mounts, and discuss their significance in identification of microorganisms.

4. Perform basic microbiology procedures using aseptic techniques for transfer, isolation and observation of commonly encountered, clinically significant bacteria.

5. Use different types of bacterial culture media to grow, isolate, and identify microorganisms.

6. Perform basic bacterial identification procedures using biochemical tests.

7. Estimate the number of microorganisms in a sample using methods such as direct counts, viable plate counts, or spectrophotometric measurements.

Schedule	Module 1: Chapters 1, 2, 9, & 10 □ Homework & Labs Set 1 Module 2: Chapters 11, 12, 13, & 14 □ Homework & Labs Set 2 Module 3: Chapters 15, 16, 17, & 18 □ Homework & Labs Set 3 Module 4: Chapters 19, 20, 21, & 22 □ Homework & Labs Set 4 □ Lab Practical Test □ Comprehensive Final Exam
Evaluation methods	Connect Homework 20% Quizzes 20% Midterm 20% Comprehensive Final Exam 20% Lab grade (lab exercise avg. 40%, group project 10%, practical tests 2@25% each) 20%

Paris Junior College Syllabus

Year	2022-2023	Faculty	Wanda Duncan
Term	Summer	Office	AS 155
Section	290	Phone	903-782-0378
		email	wduncan@parisjc.edu

Course	BUSG 1301
Title	Introduction to Business

Description

Fundamental business principles including structure, functions, resources, and operational processes. The student will identify business functions of accounting, management, marketing, and economics; and describe the scope of global business enterprise.

Textbooks

Foundations of Business, 7th edition.
Pride/Hughes/Kapoor.
Loose-leaf Version + MindTap Business, 1 term (6 months) Printed Access Card
Cengage Learning
ISBN: 978-0-357-74886-2

Student Learning Outcomes (SLO)

Identify business functions of accounting, management, marketing, and economics; and describe the relationships of social responsibility, ethics, and law; and describe the scope of global business enterprise.

Schedule

Week 1: Introduction and Syllabus Quiz
Week 2: Chapter 1
Week 3: Chapter 2
Week 4: Chapter 3 & Part 1
Week 5: Chapter 4
Week 6: Chapter 5 & Part 2
Week 7: Chapter 6
Week 8: Chapter 7
Week 9: Chapter 8 & Part 3
Week 10: Practice Final Exam
Week 11: Final Exam

This schedule is a rough guide only and is subject to change as the semester progresses.

Evaluation methods	Grades are based on a point system for completion of assessments which include Assessments, Video Quizzes, Part 1 - 3 Activities, tests, Final Exam, a BlackBoard Discussion Forum, and a BlackBoard Syllabus Quiz. All work will be graded for completeness, accuracy, and punctuality. All work must be submitted by the due date schedule. A grade of zero (0) will be recorded for any assessment which is not submitted. No late assignments accepted. No make-up or extra credit is awarded. Successful online learners are good at scheduling their time in an organized manner. Remember that your work can be done from anywhere on any computer that has Internet access and Microsoft Office 365. Letter grades will be assigned based on the following point scale: 992 - 1102 = A 882 - 991 = B 771 - 881 = C 661 - 770 = D 0 - 660 = F The assessments are broken-down as follows: Syllabus Quiz = 1 assessment BlackBoard Discussion Board Forum = 1 assessment Assessments = 8 assessments Video Quizzes = 8 assessments Part 1 -3 Activities = 3 assessments Chapter Tests = 8 assessments Final Exam = 1 assessment Checking your Grade: To check your grades, click “My Grades” tab. BlackBoard may show only the total number of points possible for each assessment and your score. The total points possible for the course may include work which you have not been assigned yet. To turn any score into a percentage, divide the number of points you received by the number of points possible. Viewing Grades: Grades as usually posted in BlackBoard within one week following the due date.

Paris Junior College Syllabus

Year	2022-2023	Faculty	Jodi Pack
Term	Summer I	Office	Online
Section	200	Phone	N/A
		email	jpack@parisjc.edu

Course	Comm1307
Title	Introduction to Mass Communication

Description	Survey of basic content and structural elements of mass media and their functions and influences on society.
Textbooks	Poepsel, M. Media, society, culture and you. (Open Source Free Book)
Student Learning Outcomes (SLO)	1.Demonstrate understanding of the fundamental types, purposes, and relevance of mass communication. 2.Demonstrate understanding of mass media in historic, economic, political, and cultural realms. 3.Demonstrate understanding of the business aspects of mass media and the influence of commercialism. 4.Demonstrate understanding of evolving media technologies and relevant issues and trends.
Schedule	June 7, First Assignment June 11, Unit 1 Exam June 14, Unit 1 Essay June 18, Unit 2 Exam June 21, Unit 2 Essay June 25, Unit 3 Exam June 28, Unit 3 Essay July 2, Unit 4 Exam July 5, Unit 4 Discussion July 9, Unit 5 Exam July 11, Unit 5 Essay/Final
Evaluation methods	Unit 1 Media Theory Essay: 100 pts, 10% Unit 2: News Article: 100 pts, 10% Unit 3: Film Review: 150 pts, 15% Unit 4: New Media Discussion: 150 pts, 15% Unit 5:Media Law/Final: 200 pts, 20% Five Unit Exams: 300 pts, 30% Total: 1000 pts, 100%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer I
Section	130

Faculty	Marjorie Pannell
Office	AS 140
Phone	903 782 0360
email	mpannell@parisjc.edu

Course	COSC 1301
Title	Introduction to Computing

Description

Overview of computer systems—hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science.

Textbooks

Cengage Unlimited
(4 Months) 978-0-357-70000-6
Course Technology

Student Learning Outcomes (SLO)

Course Objectives:
Upon successful completion of this course, students will:
1. Describe the fundamentals of computing infrastructure components: hardware, application software, operating systems, and data communications systems.
2. Delineate and discuss societal issues related to computing, including the guiding principles of professional and ethical behavior.
3. Demonstrate the ability to create and use documents, spreadsheets, presentations and databases in order to communicate and store information as well as to support problem solving.
4. Describe the need and ways to maintain security in a computing environment.
Program Objectives:
Utilize industry standard application software to produce personal, business, and academic reports and presentations.

Demonstrate knowledge of computer industry terminology and jargon.

Schedule

Week 1: Intro to CENGAGE, Fundamentals of Information Technology Conceptsand Creating and Modifying a Flyer
Week 2 Creating a Research Paper and Creating a Business Letter and Word Assessment
Week 3 Creating and Editing Presentations with Pictures and Enhancing Presentations with Shapes and SmartArt
Week 4 Inserting WordArt, Charts, PowerPoint Exam and Tables and Creating a Worksheet and a Chart
Week 5 Formulas, Functions, and Formatting, Spreadsheet Exam and Intro to Databases and Database Objects
Week 6 Querying a Database, Database Assessment and Final Exam

Evaluation methods

40% EXAMS
40% Lab Project
20% Quizzes

Paris Junior College Syllabus

Year	2022-2023
Term	Summer II
Section	265

Faculty	Marjorie Pannell
Office	AS 140
Phone	903 782 0360
email	mpannell@parisjc.edu

Course	COSC 1301
Title	Introduction to Computing

Description

Overview of computer systems—hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science.

Textbooks

Cengage Unlimited
(4 Months) 978-0-357-70000-6
Course Technology

Student Learning Outcomes (SLO)

Course Objectives:
Upon successful completion of this course, students will:
1. Describe the fundamentals of computing infrastructure components: hardware, application software, operating systems, and data communications systems.
2. Delineate and discuss societal issues related to computing, including the guiding principles of professional and ethical behavior.
3. Demonstrate the ability to create and use documents, spreadsheets, presentations and databases in order to communicate and store information as well as to support problem solving.
4. Describe the need and ways to maintain security in a computing environment.
Program Objectives:
Utilize industry standard application software to produce personal, business, and academic reports and presentations.

Demonstrate knowledge of computer industry terminology and jargon.

Schedule

Week 1: Intro to CENGAGE, Fundamentals of Information Technology Conceptsand Creating and Modifying a Flyer
Week 2 Creating a Research Paper and Creating a Business Letter and Word Assessment
Week 3 Creating and Editing Presentations with Pictures and Enhancing Presentations with Shapes and SmartArt
Week 4 Inserting WordArt, Charts, PowerPoint Exam and Tables and Creating a Worksheet and a Chart
Week 5 Formulas, Functions, and Formatting, Spreadsheet Exam and Intro to Databases and Database Objects
Week 6 Querying a Database, Database Assessment and Final Exam

Evaluation methods

40% EXAMS
40% Lab Project
20% Quizzes

Paris Junior College Syllabus

Year	2022-2023	Faculty	Paul Guidry
Term	Summer	Office	Appointment only
Section	200	Phone	903.782.0318
		email	pguidry@parisjc.edu

Course	CRIJ 1301
Title	Introduction to Criminal Justice

Description

This course is a study of history and philosophy of criminal justice including ethical considerations. Topics include the definition of crime, the nature and impact of crime, an overview of the criminal justice system, law enforcement, court system, prosecution and defense, trial process, and corrections.

Textbooks

Criminal Justice: A Brief Introduction. Schmalleger 13th edition ISBN: 9780135209028 (eText version)

Student Learning Outcomes (SLO)

1. Describe the history and philosophy of the American criminal justice system.
2. Explain the nature and extent of crime in America.
3. Analyze the impact and consequences of crime.
4. Evaluate the development, concepts, and functions of law in the criminal justice system.

Schedule

Week 1-What is Criminal Justice - Read Chapter 1 (assignment 1 for week one)
Week 1-The Crime Picture - Read Chapter 2
Week 1-Criminal Law - Read Chapters 3
Week 2-Policing: Purpose and Organization - Read Chapter 4 (assignment 2 for week two)
Week 2-Legal Aspects - Read Chapter 5
Week 2-Issues and Challenges - Read Chapter 6
Week 3-The Courts - Read Chapter 7 (assignment 3 for week three)
Week 3-The Courtroom Work Group and the Criminal Trial - Read Chapter 8
Week 3-Sentencing - Read Chapter 9
Week 4-Probation, Parole, and Community Corrections - Read Chapter 10 (assignment 4 for week four)
Week 4-Prisons and Jails - Read Chapter 11
Week 4-Prison Life - Read Chapter 12
Week 5-Final exams week: July 10 is the due date for assignment 5

Evaluation methods	A weekly exam that includes multiple-choice, true and false, fill in the blank and short essay questions.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer Extended
Section	290

Faculty	Chris Malone
Office	WTC - Room 1101
Phone	903-782-0391
email	cmalone@parisjc.edu

Course	DFTG 1305
Title	Technical Drafting

Description	Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, and auxiliary views.
Textbooks	No text required
Student Learning Outcomes (SLO)	Students will create technical drawings, using geometric construction, orthographic projections, pictorial/ sectional views, and dimensioned drawings using a CAD program.
Schedule	Week 1-What is drafting and how is it used in industry? Week 2-Drafting tools Week 3-Lettering and Scales Week 4-Sketching Week 5-Projection Techniques Week 6-Orthographic Projection Week 7-Designing with CAD Week 8-Drawing Tools CAD Week9-Modify Tools CAD Week 10-Multi-views in CAD Week 11-Auxiliary views in CAD Week 12-Dimensioning and Annotations Week 13-Isometric Drawing Week 14-Sections Week 15-Working with and reading blueprints Week 16-Finals
Evaluation methods	Grading Objectives:Projects:60%, Final Exam/Project: 40% of total grade

Paris Junior College Syllabus

Year	2022-2023
Term	Summer Extended
Section	290

Faculty	Chris Malone
Office	WTC - Room 1101
Phone	903-782-0391
email	cmalone@parisjc.edu

Course	DFTG 1309
Title	Basic Computer-Aided Drafting

Description

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale.

Textbooks

No Book Required

Student Learning Outcomes (SLO)

Students will create technical drawings, using geometric construction, orthographic projections, pictorial/ sectional views, and dimensioned drawings using a CAD program.

Schedule

Week 1-Getting Started AutoCAD Overview
Week 2-Basic Drawing Set-up
Week 3-Draw Commands
Week 4-Modify Commands
Week 5-Utilities (Zoom, Pan, Undo, Redo)
Week 6-Osnaps
Week 7-Creating & Editing Text
Week 8-Layers
Week 9-Working with Grips
Week 10-Inquiry Commands (Distance, Area)
Week 11-Dimensioning
Week 12-Annotations
Week 13-Using Hatches
Week 14-Creating & working with Blocks
Week 15-Printing and Plotting
Week 16-Finals

Evaluation methods

Grading Objectives:Projects:60%, Final Exam/Project: 40% of total grade

Paris Junior College Syllabus

Year	2022-2023	Faculty	Chris Malone
Term	Summer Extended	Office	WTC - Room 1101
Section	290	Phone	903-782-0391
		email	cmalone@parisjc.edu

Course	DFTG 2319
Title	Intermediate Computer-Aided Drafting

Description

A continuation of practices and techniques used in basic computer-aided drafting including the development and use of prototype drawings, construction of pictorial drawings, extracting data, and basics of 3D.

Textbooks

No Book Required

Student Learning Outcomes (SLO)

Students will create technical drawings, using geometric construction, orthographic projections, pictorial/ sectional views, and dimensioned drawings using a CAD program.

Schedule

Week 1-Advanced AutoCAD Commands
Week 2-Using Design Center and Tool Palettes
Week 3-Creating custom Tool Palettes
Week 4-Creating & using Attributes
Week 5-External Referencing
Week 6-Parametric Design
Week 7-Using Layouts
Week 8-Basic Customization of AutoCAD
Week 9-Basic 3D modeling
Week 10-Wire frame models
Week 11-Surface models
Week 12-Solid models
Week 13-Editing Surfaces
Week 14-Rendering
Week 15-Creating 2D Drawings from 3D Models
Week 16-Finals

Evaluation methods

Grading Objectives: Projects:60%, Final Exam/Project: 40% of total grade

Paris Junior College Syllabus

Year	2023	Faculty	Ashley Flanagan
Term	Summer	Office	Annex 1
Section	190	Phone	903-782-0250
		email	aflanagan@parisjc.edu

Course	DMSO 1261
Title	Clinical -Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

Description	A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Textbooks	None required
Student Learning Outcomes (SLO)	Upon completion of this program, it is expected that a graduate will be able to: 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures 2. Regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry
Schedule	Week 1- 12 Clinical Rounds/Lab
Evaluation methods	Course grade will depend on the number of points in each of the following categories: Competencies Patient Care Professionalism Knowledge/Skills

Paris Junior College Syllabus

Year	2023	Faculty	Ashley Flanagan
Term	Summer	Office	Annex 1
Section	190	Phone	903-782-0250
		email	aflanagan@parisjc.edu

Course	DMSO 2351
Title	Doppler Physics

Description

Doppler and hemodynamic principles relating to arterial and venous imaging and testing.

Textbooks

Understanding Ultrasound Physics
ISBN 9780962644450

Student Learning Outcomes (SLO)

1. Describe Doppler and hemodynamic principles.
2. Identify instrument options and transducer selection
3. Interpret methods of Doppler flow analysis.
4. differentiate common image artifacts.

Schedule

06/05
Chapter 13-Real Time Imaging
06/12Quiz #1 (Chapters 12 & 13)
Edelman, Chapters 14-Pulsed Echo Instrumentation
06/19EXAM 1 (Chapters 12, 13, 14)
Edelman, Chapter 15-Displays & Image Processing
06/26 Quiz # 2 (Chapter 15)
Edelman, Chapter 16-Dynamic Range
07/03EXAM 2 (Chapter 15 & 16)
Edelman Review
07/10Quiz #3 Chapter 17

Evaluation methods

Exams 50%
Quizzes 30%
Final Exam 10%
Lab Assignments 10%

Paris Junior College Syllabus

Year	2023
Term	Summer
Section	190

Faculty	Ashley Flanagan
Office	Annex 1
Phone	903-782-0250
email	aflanagan@parisjc.edu

Course	DMSO 2353
Title	Sonography of Superficial Structures

Description

Detailed study of normal and pathological superficial structures as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols.

Textbooks

Sonography Introduction to Normal Structures and Function
ISBN 9780323661355
Work book and Lab Manuel; Sonography Introduction to Normal Structures and Function
ISBN 9780323709477

Student Learning Outcomes (SLO)

Identify sonographic appearance of normal and abnormal superficial structures; demonstrate ergonomic scanning techniques using standard protocol guidelines; and evaluate patient history and laboratory data as it relates to superficial structures.

Schedule

06/07 Thyroid
06/14 Quiz #1 Thyroid-Introduce Breast
Case Studies ASSIGNED
06/21 Quiz #2 Breast-Introduce Scrotal
06/28 Exam 1 Thyroid, breast, Scrotal
07/05 MSK
07/12 Review-EXAM 2
07/19 Superficial Structures
07/26 Exam 3 – Interventional Procedures
08/02 Pathology-Thyroid, Breast, Scrotal
08/09 Pathology -Interventional Procedures

Evaluation methods

Exams 50%
Quizzes 30%
Final Exam 10%
Lab Assignments 10%

Paris Junior College Syllabus

Year	2022-2023
Term	Sum 1
Section	200

Faculty	Alex Peevy
Office	AD133
Phone	903 782 0321
email	apeevy@parisjc.edu

Course	DRAM1310
Title	Theater Appreciation

Description

Survey of basic content and structural elements of mass media and their functions and influences on society.

Textbooks

Mitchel, Charlie. Theatrical Worlds. (e-book is free of charge)

Student Learning Outcomes (SLO)

1. Analyze theater through written responses to play texts and/or live performances.
2. Demonstrate a basic knowledge of theater history and dramatic works.
3. Describe the collaborative nature of theater arts.
4. Demonstrate the relationship of the arts to everyday life as well as broader historical and social contexts.

Schedule

Week 1 First Assignment 6/7 Theater Origins Module 1a
Renaissance Theater Module 1b
Week 2 Module 1A & 1B quiz 6/12 Theater East & West Module 2

Week 3 Module 2 quiz 6/19 Acting and Tech Module 3
Social Change Essay 6/19
Midterm Exam 6/21
Week 4 Module 3 quiz 6/26 Musical Theater Module 4
Week 5 Module 4 quiz 7/3 Review Modules 1-4 for Final Exam
The Crucible quiz 7/3
The Crucible Discussion 7/3
Final Exam 7/6

Evaluation methods

Formal Email Assignment 5% 50
Quizzes Average 20% 200 900-1000pts= A
Midterm/Final Average 25% 250 800-899pts= B
Discussions & Responses 15% 150 700-799pts= C
Social Change Essay 35% 350 600-699pts= D

Paris Junior College Syllabus

Year	2022-2023
Term	Summer 1
Section	200

Faculty	William Walker
Office	MB 106
Phone	903-785-0488
email	wwalker@parisjc.edu

Course	DRAM 1310
Title	Theater Appreciation

Description

Survey of theater including its history, dramatic works, stage techniques, production procedures, and relation t
forms. Three credit hours.
Credits: 3.2.4
TSI Requirement: 350 M, 351 R, 340 W.

Textbooks

Mitchel, Charlie. Theatrical Worlds. (Included in the class in PDF format.)
Miller, Arthur. The Crucible. (Included in the class in PDF format.)

Student Learning Outcomes (SLO)

Course Goals and Objectives:

•Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human in
Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovat

Schedule

Important Dates:
June 05, 2023: First Day of Class
June 08, 2023: Official Reporting Day
June 29, 2023: Last day to drop with a "W"
July 05, 2023: All Assignments close at 11:59 PM
July 05-10, 2023, 2023: Final Exam
July 12, 2023: Grades are due

Course Schedule/Calendar

(JUNE 5 - JULY 05)
Module 1A – From the Beginnings

PowerPoint
PowerPoint Quiz - Due by JULY 05 at 11:59 PM
Module 1B – Theatrical Influencers of the Renaissance

Evaluation methods	Grade Evaluation Who Am I Assignment5% Quizzes Average20% Midterm/Final Exam Average25% Discussions & Responses15% Social Change Essay35% Grading Procedures Who Am I Assignment (5% of Course Grade): This assignment is the first assignment to be completed for this course. Students will write a short biography, t

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Paris Junior College Syllabus

Year	2022-2023
Term	SP
Section	200

Faculty	Benjamin Burden
Office	MS 111E
Phone	903-782-0497
email	bburden@parisjc.edu

Course	ECON 2301
Title	Principles of Macroeconomics

Description

This course surveys the American economic system emphasizing the analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy.

Textbooks

Principles of Macroeconomics, v4.0. Libby Rittenberg, Alan Grant, and Timothy Tregarthen. FlatWorld Knowledge. Pub. 2021. eISBN: 978-1-4533-3903-9.
Online Reader:https://students.flatworldknowledge.com/course/2600330

Student Learning Outcomes (SLO)

The primary objectives of economics courses at Paris Junior College are designed to maximize students' capacity to:
1. Explain the role of scarcity, specialization, opportunity cost, and cost/benefit analysis in economic decision-making.

Schedule

Tentative Schedule Summer 2023:
This schedule is only tentative. The instructor reserves the right to change dates and times of material covered and exams. Changes will be announced in class as the semester progresses. Students are responsible for making themselves aware of any deviations from the projected syllabus
Week 1 (Jun 5 – Jun 11):Chapter 1, 2, 3
Week 2 (Jun 12 – Jun 18):Chapter 4, 5, 6
Week 3 (Jun 19 – Jun 25):Chapter 7, 8, 9 {Exam 1 Ch's 1,2,3,4}
Week 4 (Jun 26 – Jul 2):Chapter 10, 11, 12 {Exam 2 Ch's 5,6,7,8}
Week 5 (Jul 3 – Jul 9):July 4th Holiday, Chapter 13, 17 {Exam 3 Ch's 9,10,11,}
Week 6 (Jul 10 – Jul 11):Final Exam {over chapters 12, 13, 17}**

**The Final Exam will be held Monday and Tuesday, not the usual Tues./Weds.!!!!

It is important that students keep up with the material. They are encouraged to spend at least one hour of dedicated study time outside of class for each hour spent in class. This is in addition to time spent completing assignments or preparing for exams. Your instructor is a valuable resource for understanding the material and performing well on exams. Students who ask questions in class

Evaluation methods	Grading Policy: Your grade will be determined by your average at the end of the semester. The grading scale will be as follows: 100% - 89.5%A 89.4% - 79.5%B 79.4% - 69.5%C 69.4% - 59.5%D Below 59.5%F Further, your course average will be determined by four exams (20% each) as well as numerous homework assignments and in class quizzes (20% total). There are no make-up homework assignments. If you miss an exam, it is your obligation to inform your instructor as soon as possible. You must have verifiable documentation (doctor's note, etc…) in order not to receive a

Paris Junior College Syllabus

Year	2022-2023
Term	SP
Section	200

Faculty	Benjamin Burden
Office	MS 111E
Phone	903-782-0497
email	bburden@parisjc.edu

Course	ECON 2302
Title	Principles of Microeconomics

Description

This course surveys the American economic system emphasizing the impact of choices made by consumers and firms on the total level of economic activity. Introduces the fundamental economic principles underlying the economic problem; special emphasis on market economic analysis; determinants of policy; economic growth; microeconomic equilibrium, profit maximization. Specific topics are examined using basic methods of economics.

Textbooks

Required Text and Online Bundle:
Principles of Microeconomics, v4.0. Libby Rittenberg, Alan Grant, and Timothy Tregarthen
Published:2021, eISBN: 978-1-4533-3905-3

Student Learning Outcomes (SLO)

: The primary objectives of economics courses at Paris Junior College are designed to maximize students' capacity to:
1. Explain the role of scarcity, specialization, opportunity cost, and cost/benefit analysis in economic decision-making.

Schedule

Tentative Schedule Summer 2023:
This schedule is only tentative. The instructor reserves the right to change dates and times of material covered and exams. Changes will be announced in class as the semester progresses. Students are responsible for making themselves aware of any deviations from the projected syllabus
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Week 2 (Jun 12 – Jun 18):Chapter 4, 5, 6
Week 3 (Jun 19 – Jun 25):Chapter 7, 8, 9 {Exam 1 Ch's 1,2,3,4}
Week 4 (Jun 26 – Jul 2):Chapter 10, 11, 12 {Exam 2 Ch's 5,6,7,8}
Week 5 (Jul 3 – Jul 9):July 4th Holiday, Chapter 13, 14 {Exam 3 Ch's 9,10,11,}
Week 6 (Jul 10 – Jul 11):Final Exam {over chapters 12, 13, 14}**

**The Final Exam will be held Monday and Tuesday, not the usual Tues./Weds.!!!!

It is important that students keep up with the material. They are encouraged to spend at least one hour of dedicated study time outside of class for each hour spent in class. This is in addition to time spent completing assignments or preparing for exams. Your instructor is a valuable resource for understanding the material and performing well on exams. Students who ask questions in class

Evaluation methods	Grading Policy: Your grade will be determined by your average at the end of the semester. The grading scale will be as follows: 100% - 89.5%A 89.4% - 79.5%B 79.4% - 69.5%C 69.4% - 59.5%D Below 59.5%F Further, your course average will be determined by four exams (20% each) as well as numerous homework assignments and in class quizzes (20% total). There are no make-up homework assignments. If you miss an exam, it is your obligation to inform your instructor as soon as possible. You must have verifiable documentation (doctor's note, etc…) in order not to receive a

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	190

Faculty	Bobby Fields
Office	WTC 1111
Phone	903-728-0722
email	bfields@parisjc.edu

Course	ELPT-1221
Title	Introduction to Electrical Safety and Tools

Description

An introduction to industrial, commercial, and construction related safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians.

Textbooks

Electrical Safety-Related Work Practices - Palmer Hickman, Third Edition; ISBN: 978-1-4496-4278-5

Student Learning Outcomes (SLO)

Explain electrical hazards and how to avoid them in the workplace; discuss safety issues concerning lockout/tagout procedures; and demonstrate safe work habits using common hand and power tools for electricians.

Schedule

Week 1 – Introduction, hand-outs, class guidelines
Week 2 - Ch. 1; Electrical Safety Culture
Week 3 – Ch. 2; Electrical Hazard Analysis
Week 4 – Ch. 3; OSHA Considerations, TEST 1: Chapters 1-3
Week 5 – Ch. 4; Lockout, Tagout, and the Control of Hazardous Energy
Week 6 – Ch. 5; Introduction to NFPA 70E
Week 7 – Ch. 6; Justification, Assessment, and Implementation of Energized Work
Week 8 – Ch. 7; Incident Energy Varies by Fault Current Magnitude and Duration, TEST 2: Chapters 4-7
Week 9 – Ch. 8; Arc Flash Hazard Analysis Methods
Week 10 – Ch. 9; Fundamentals of 3-Phase Bolted Fault Current, Ch. 10; OCPD Work Practices and Maintenance Considerations
Week 11 – Ch. 11; Electrical System Design and Upgrade Considerations, TEST 3: Chapters 8-11

Evaluation methods	25% : Unit Tests (no-makeup's) 50% : Labs / Workbook Exercises 25% : Final Exam	90 –100 is an "A" 80 – 89 is a "B" 70 – 79 is a "C"

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	490

Faculty	James Smith
Office	WTC 1014
Phone	903-782-0750
email	jamessmith@parisjc.edu

Course	EMSP 1160
Title	Clinical - Emergency Medical Technology/Technician

Description

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is proviced by the clinical professional.

Textbooks

Fisdap Internship Package: EMT

Student Learning Outcomes (SLO)

Upon completion of the program, the graduate will:

- Demonstrate competency and the knowledge to recognize and care for a medical emergency.
- Demonstrate competency and the knowledge to recognize and care for a trauma emergency.
- Demonstrate competency to function as an entry-level pre-hospital provider at the EMT level.

Schedule

Week 1-8: Students participate weekly in the following areas:
Hospitals - 2 hours
Emergency Medical Services - 4 hours

Evaluation methods

Required competencies are recorded and tracked for each student.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	490

Faculty	James Smith
Office	WTC 1014
Phone	903-782-0750
email	jamessmith@parisjc.edu

Course	EMSP 1501
Title	Emergency Medical Technician - Basic

Description

Preparation for certification as an Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services.

Textbooks

EMERG CARE & TRANS OF SICK INJ 12E W/Premier ACCESS
ISBN#9781284227192 has premier access with a physical textbook
ISBN#9781284227215 has premier access with a digital text.

Student Learning Outcomes (SLO)

Upon completion of the program, the graduate will be able to:

1.Examine and assess the complexity and condition level of the patient as well as the extent of injuries to determine the need for and provide the appropriate basic emergency medical care based on the findings.
2.Ability to conduct oneself in an ethical and professional manner demonstrating proficiency in interpersonal relations and communications.
3.Demonstrate competency as an entry-level EMT-Basic in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Schedule

Week 1: Orientation, Introduction to EMS, Well-Being of EMT, Medical Legal, Communications & Documentation
Week 2: Medical Terminology, The Human Body, Life Span Development, Lifting & Moving Patients, The Team Approach to Health Care
Week 3: Patient Assessment & Vital Signs, Airway Management, Principles of Pharmacology, Shock & BLS Resuscitation
Week 4: Medical Overview, Respiratory, Cardiovascular, Neurologic, Gastrointestinal, Urologic, Endocrine, Allergies & Anaphylaxis, Toxicology, Behavioral Health & Gynecological Emergencies
Week 5: Trauma Overview, Bleeding, Soft Tissues Injuries, Face & Neck Injuries, Head & Spinal Injuries, Chest, Abdominal, Genitourinary, Orthopaedic & Environmental Emergencies
Week 6: Obstetrics & Neonatal Care, Pediatric & Geriatric Emergencies & Patients with Special Challenges
Week 7: Transport Operations, Vehicle Extrication & Special Rescue, Incident Management, Terrorism Response & Disaster Management
Week 8: Medical & Trauma Scenarios, Jurisprudence & Final Exam

Evaluation methods	Exams - 60% Homework and Quizzes - 20% Assignments - 20%

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	100

Faculty	Carey Gable
Office	ADM 133: By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	ENGL 1301.100 - MTWR 10:20 - 12
Title	Composition I: ADM 128

Description

"Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:
1. Demonstrate knowledge of individual and collaborative writing processes.
2. Develop ideas with appropriate support and attribution.
3. Write in a style appropriate to audience and purpose.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)

Week 1:
June 5 - 11
Syllabus, Course Instructions, Lab instructions, Student Intros
Lesson 1 – Academic Writing, How to Write an Academic Intro and Conclusion
Lesson 2 – MLA Formatting
Lesson 3 – Pre-Writing and Grammar (Online)
Lesson 4 – Descriptive Writing, Using the senses to build length
Lesson 5 – Narrative Writing, Establishing a story arc
Assignment: First Assignment: Syllabus Quiz (Online)
Assignment: Intro Discussion Post (Online)
Assignment: Formatting Quiz (Online)
Assignment: Read Fahrenheit 451(Online)
Assignment: Descriptive Writing Assignment (Online)
Assignment: Narrative Essay (Online)

Evaluation methods	Course Requirements and Evaluation: Grades will be determined on a points system out of 100 total points. Each assignment is worth a set amount of points and by adding all of the accumulated points, your grade is determined. This course will consist of the five (5) core essays. These are essential to this course and must be completed. You may revise your essays throughout the semester for up to a B (8). Please follow the revision rules as established in the course shell. Remember that writing is a process. Note that this course grade is calculated by the accumulation of points, not by averages. Essays (5)100 points each (50 points) Narrative Comparison

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	140

Faculty	Carey Gable
Office	ADM 133: By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	ENGL 1301.100 - MTWR 10:20 - 12
Title	Composition I: ADM 128

Description

"Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:
1. Demonstrate knowledge of individual and collaborative writing processes.
2. Develop ideas with appropriate support and attribution.
3. Write in a style appropriate to audience and purpose.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)

Week 1:
June 5 - 11
Syllabus, Course Instructions, Lab instructions, Student Intros
Lesson 1 – Academic Writing, How to Write an Academic Intro and Conclusion
Lesson 2 – MLA Formatting
Lesson 3 – Pre-Writing and Grammar (Online)
Lesson 4 – Descriptive Writing, Using the senses to build length
Lesson 5 – Narrative Writing, Establishing a story arc
Assignment: First Assignment: Syllabus Quiz (Online)
Assignment: Intro Discussion Post (Online)
Assignment: Formatting Quiz (Online)
Assignment: Read Fahrenheit 451(Online)
Assignment: Descriptive Writing Assignment (Online)
Assignment: Narrative Essay (Online)

Evaluation methods	Course Requirements and Evaluation: Grades will be determined on a points system out of 100 total points. Each assignment is worth a set amount of points and by adding all of the accumulated points, your grade is determined. This course will consist of the five (5) core essays. These are essential to this course and must be completed. You may revise your essays throughout the semester for up to a B (8). Please follow the revision rules as established in the course shell. Remember that writing is a process. Note that this course grade is calculated by the accumulation of points, not by averages. Essays (5)100 points each (50 points) Narrative Comparison

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	200

Faculty	Carey Gable
Office	ADM 133: By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	ENGL 1301.200 - Online
Title	Composition I: Online

Description

"Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:
1. Demonstrate knowledge of individual and collaborative writing processes.
2. Develop ideas with appropriate support and attribution.
3. Write in a style appropriate to audience and purpose.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)

Week 1:
June 5 - 11
Syllabus, Course Instructions, Lab instructions, Student Intros
Lesson 1 – Academic Writing, How to Write an Academic Intro and Conclusion
Lesson 2 – MLA Formatting
Lesson 3 – Pre-Writing and Grammar (Online)
Lesson 4 – Descriptive Writing, Using the senses to build length
Lesson 5 – Narrative Writing, Establishing a story arc
Assignment: First Assignment: Syllabus Quiz (Online)
Assignment: Intro Discussion Post (Online)
Assignment: Formatting Quiz (Online)
Assignment: Read Fahrenheit 451(Online)
Assignment: Descriptive Writing Assignment (Online)
Assignment: Narrative Essay (Online)

Evaluation methods	Course Requirements and Evaluation: Grades will be determined on a points system out of 100 total points. Each assignment is worth a set amount of points and by adding all of the accumulated points, your grade is determined. This course will consist of the five (5) core essays. These are essential to this course and must be completed. You may revise your essays throughout the semester for up to a B (8). Please follow the revision rules as established in the course shell. Remember that writing is a process. Note that this course grade is calculated by the accumulation of points, not by averages. Essays (5)100 points each (50 points) Narrative Comparison

Paris Junior College Syllabus

Year	2023	Faculty	Donald Bates
Term	Summer 1st term	Office	133B
Section	201	Phone	(903) 782-1317
		email	dbates@parisjc.edu

Course	ENGL 1301
Title	Composition I

Description

Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Three credit hours. Prerequisite(s): IRWS0302 with a grade of C or above or placement by department (based on admission

Textbooks

Kirszner, Laurie G., and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 14th ed. Bedford/St. Martin's, 2018. ISBN: 978-1-319-05664-3. Combined with Launchpad.

Student Learning Outcomes (SLO)

1. Students will be able to identify, arrange, and evaluate the effectiveness of a thesis statement.
2. Students will be able to identify Standard Written English (SWE) and apply correct forms of English most widely accepted as clear and proper.
3. Students will be able to identify the specific parts of an essay, distinguish appropriate modes of

Schedule

ENGL 1301 Schedule*
*See PJC Blackboard for assignment dates. All dates subject to change by Instructor.

First Assignment Syllabus Quiz Test
Lesson #1 Quiz Essay Organization
Lesson #2 Quiz Narration
Rough Draft Peer Review
Essay 1 The Narrative
Lesson 5 Quiz Description
Lesson #4 Quiz
The Outline
Lesson 6 Quiz Description
Rough Draft Peer Review
Descriptive Essay #2
Exam 1 Fahrenheit 451 Lesson 8
Novel Exam 2 Fahrenheit 451 Lesson 9
Rough Draft Peer Review

Evaluation methods	Course Requirements and Evaluation: Semester Grade Determination: Writing (Narration, Description, Research, Exemplification Essays) 45% Novel Exams 10% Lab Exercises (Launchpad located in Blackboard) 20% Participation/Attendance (includes in-class work) 15% Final Essay 10% Total: 100% Essay Assignments: Essay assignments most likely consist of: Narration, Description, Research, and Exemplification. There will also be a Final Essay for all students who do not qualify to exempt it. In order to exempt

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	440

Faculty	Carey Gable
Office	ADM 133: By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	ENGL 1301.100 - MTWR 10:20 - 12
Title	Composition I: ADM 128

Description

"Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:
1. Demonstrate knowledge of individual and collaborative writing processes.
2. Develop ideas with appropriate support and attribution.
3. Write in a style appropriate to audience and purpose.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)

Week 1:
June 5 - 11
Syllabus, Course Instructions, Lab instructions, Student Intros
Lesson 1 – Academic Writing, How to Write an Academic Intro and Conclusion
Lesson 2 – MLA Formatting
Lesson 3 – Pre-Writing and Grammar (Online)
Lesson 4 – Descriptive Writing, Using the senses to build length
Lesson 5 – Narrative Writing, Establishing a story arc
Assignment: First Assignment: Syllabus Quiz (Online)
Assignment: Intro Discussion Post (Online)
Assignment: Formatting Quiz (Online)
Assignment: Read Fahrenheit 451(Online)
Assignment: Descriptive Writing Assignment (Online)
Assignment: Narrative Essay (Online)

Evaluation methods	Course Requirements and Evaluation: Grades will be determined on a points system out of 100 total points. Each assignment is worth a set amount of points and by adding all of the accumulated points, your grade is determined. This course will consist of the five (5) core essays. These are essential to this course and must be completed. You may revise your essays throughout the semester for up to a B (8). Please follow the revision rules as established in the course shell. Remember that writing is a process. Note that this course grade is calculated by the accumulation of points, not by averages. Essays (5)100 points each (50 points) Narrative Comparison

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	540

Faculty	Carey Gable
Office	ADM 133: By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	ENGL 1301.100 - MTWR 10:20 - 12
Title	Composition I: ADM 128

Description

"Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:
1. Demonstrate knowledge of individual and collaborative writing processes.
2. Develop ideas with appropriate support and attribution.
3. Write in a style appropriate to audience and purpose.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)

Week 1:
June 5 - 11
Syllabus, Course Instructions, Lab instructions, Student Intros
Lesson 1 – Academic Writing, How to Write an Academic Intro and Conclusion
Lesson 2 – MLA Formatting
Lesson 3 – Pre-Writing and Grammar (Online)
Lesson 4 – Descriptive Writing, Using the senses to build length
Lesson 5 – Narrative Writing, Establishing a story arc
Assignment: First Assignment: Syllabus Quiz (Online)
Assignment: Intro Discussion Post (Online)
Assignment: Formatting Quiz (Online)
Assignment: Read Fahrenheit 451(Online)
Assignment: Descriptive Writing Assignment (Online)
Assignment: Narrative Essay (Online)

Evaluation methods	Course Requirements and Evaluation: Grades will be determined on a points system out of 100 total points. Each assignment is worth a set amount of points and by adding all of the accumulated points, your grade is determined. This course will consist of the five (5) core essays. These are essential to this course and must be completed. You may revise your essays throughout the semester for up to a B (8). Please follow the revision rules as established in the course shell. Remember that writing is a process. Note that this course grade is calculated by the accumulation of points, not by averages. Essays (5)100 points each (50 points) Narrative Comparison

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	200

Faculty	Jennifer Collar
Office	AD 133A
Phone	903-782-0450
email	jcollar@parisjc.edu

Course	ENGL 1302
Title	Composition, Rhetoric, and Reading

Description

Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions.

Textbooks

Book Title: Arguing about Literature: A Guide and Reader (packaged with Achieve access code for lab)
Editors: John Schilb and John Clifford Publisher: Bedford/St. Martins Edition/Year: 3rd edition, 2020

Student Learning Outcomes (SLO)

Foundational Component Area: Communication
Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written, and visual literacy skills that

Schedule

Due Dates for Units:
Unit One (supports Student Learning Outcomes, Core Curriculum-Level 1-2, English Program-Level 1-3, and Course-Level, 3-5):
Due by 11:59 pm on Friday, June 9th
Unit Two (supports Student Learning Outcomes, Core Curriculum-Level 1-2 and 4, English Program-Level 1-3, and Course-Level, 3-5):
Due by 11:59 pm on Friday, June 16th (Research Paper is due in this unit, so you have a full week to complete it)
Unit Three (supports Student Learning Outcomes, Core Curriculum-Level 1-4, English Program-Level 1-3, and Course-Level, 2-5):
The play must be read, and you must be engaged in group discussion about the play/essay by 11:59 pm on Tuesday, June 20th . You must post your individual paragraph to your group's discussion board by 11:59 pm on Friday, June 23rd.
All other lessons/assignments, including the final group essay are due by 11:59 pm on Wednesday, June 28th.
Final Essay:
Final Essay is due by 11:59 pm on Friday, July 7th. You are exempt from this final paper if you

Evaluation methods	Grade Determination: Exams=20% (Poetry, Drama, & Short Story) Writing=45% (Critical Evaluation Essay=10%, Research Argumentation Essay=15%, Synthesis Essay=10%, Analytic Exam/Essay=10%), Quizzes=15% 1302 Lab Exercises=15% Discussion=5%

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	200

Faculty	Jennifer Collar
Office	AD 133F
Phone	903-782-0450
email	jcollar@parisjc.edu

Course	ENGL 2322
Title	British Literature I

Description

A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions.
Credits: 3 (= 3 lecture hours per week)

Textbooks

Greenblatt, Stephen, eds. et al. The Norton Anthology of English Literature: Major Authors, 9th ed. New York: Norton, 2013. [This is a one-volume edition and will be used for ENGL 2322/2323.] ISBN: 978-0-393-91963-9.

Student Learning Outcomes (SLO)

Foundational Component Area: Language, Philosophy, and Culture
Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.

Schedule

Course Calendar (You must click on Content, the unit folder, and finally the lesson folder to access all of the lesson instructions and activities/assignments):
Unit I
Lessons 1-4 due by 11:59 pm on Monday, June 12th
Unit II
Lessons 5-8 due by 11:59 pm on Monday, June 19th

Unit III
Lessons 9-11 due by 11:59 pm on Monday, June 26th

Unit IV
Research Video Presentation due by 11:59 pm on Monday, July 3rd; responses to projects due by 11:59 pm July 5th; questions about presentation should be answered by 11:59 pm on July 6th.

Unit V
Lessons 12-14 (includes Exam 4) due by 11:59 pm on SUNDAY, July 9th

Evaluation methods	Discussion forums--12%; exams, 60% (15% each); research/PowerPoint project, 13%; research essay, 15%.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer I
Section	200

Faculty	Brandon Langehennig
Office	FGC 104D
Phone	903-782-0725
email	blangehennig@parisjc.edu

Course	GOVT 2305
Title	Federal Government (federal constitution and topics)

Description

Origin and development of the U.S. Constitution, structure and powers of the national government including th executive, and judicial branches, federalism, political participation, the national election process, public policy and civil rights.

Textbooks

Ginsberg, Benjamin, Theodore Lowi, Margaret Weir, Caroline Tolbert, Andrea Campbell, and Robert Spitzer. People, 13th Essentials Edition. New York, NY: W. W. Norton.

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:
1. Explain the origin and development of constitutional democracy in the United States.
2. Demonstrate knowledge of the federal system.
3. Describe separation of powers and checks and balances in both theory and practice.

Schedule

Week 1 - Introduction to American Government, Citizenship, Essential Knowledge
Week 2 - Founding and the Constitution, Constitutional Development, Federalism, Civil Liberties & Civil Rigl Midterm Exam
Week 3 - Public Opinion, Political Participation, Parties, Elections, and Interest Groups
Week 4 - Congress, Bureaucracy, the Executive Branch, Federal Courts
Week 5 - Policy, Foreign & Domestic
Week 6 - Final Exam

Evaluation methods	Each student will complete two objective examinations (400 pts), five module posttests (250 pts), and five writ assignments (350 pts). Assignments allow a possible accumulation of up to 1000 points toward the student's fi grade. Final grades are assigned as follows: A (1000-900), B (899-800), C (799-700), D (699-600), F (599-0).

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Paris Junior College Syllabus

Year	2023	Faculty	Marcus Armstrong
Term	Summer I	Office	MS 111m
Section	140	Phone	
		email	

Course	GOVT 2306
Title	Texas Government

Description	This course is a survey of the theory, institutions, and practices of Texas state government and local governments. In this course, we will explore the role that the United States Founders envisioned for state governments. In addition, we will discuss the theories of government which influenced the State of Texas as well as how the Texas government actually operates. Finally, we will examine how these theories, institutions, and practices have changed over time.
Textbooks	Champagn e, Anthony, Edward Harpham,
Student Learning Outcomes (SLO)	1. Students will understand the concepts of federalism and republicanism and how these con-cepts apply to Texas government. 2. Students will understand the powers of state government and the relationship between state governmental powers and federal governmental powers.

Schedule	Week 1- Republicanism and Federalism; States in the Federal System, ch. 3 Week 2- The Tenth Amendment; Texas Constitution; Exam 1, ch 2 Week 3- The Texas Legislature, ch 7 Week 4- The Texas Executive; The Texas Judiciary; Exam 2, ch 8 & 9 Week 5- Political Parties; Campaigns and Elections, ch 4 & 5 Week 6- Exam Review; Final Exam Week 7- Week 8- Week 9- Week 10- Week 11- Week 12- Week 13- Week 14- Week 15- Week 16-
Evaluation methods	There are a total of 100 points in the class. They are broken down as follows: Exam 1: 25 points Exam 2: 25 points Exam 3: 25 points Legislative Bill Project: 15 points Daily Participation: 10 points A = 90-100 points B = 80-89 points C = 70-79 points D = 60-69 points

Paris Junior College Syllabus

Year	2023	Faculty	Waltman-Payne
Term	Spring	Office	Greenville 204
Section	200	Phone	903-457-8726
		email	kpayne@parisjc.edu

Course	Govt 2306
Title	Texas Government

Description

This course leads students through an analysis of the Texas Constitution, and the politics and people of the stat contemporary challenges that Texans must confront through civic engagement, effective leadership, and policy Topics of the course include the origin and development of the Texas Constitution, political institutions of stat government, federalism and inter-governmental relations, political participation, the election process, public po political culture of Texas.

Textbooks

Textbook:
Champagne, Anthony, Edward Harpham, and Jason Casellas. 2019. Governing Texas. 5th ed. New York, NY:
ISBN: 9780393539707

Student Learning Outcomes (SLO)

1)Explain the origin and development of constitutional democracy in the United States.
2)Demonstrate knowledge of the federal system.
3)Describe separation of powers and checks and balances in both theory and practice.
4)Demonstrate knowledge of the legislative, executive, and judicial branches of the federal government.

Schedule

Week 1: Syllabus Quiz, Poltiical Culture, Discussion Board Pre-test; post-test
Week 2 - Tx Constitution,, Pre-test; post-test, Discussion Board, MId-term Exam
Week 3 - Texas in Fed System, Politics, Pre-test; post-test, Discussion Board, Final Exam
Week 4: Institutuion Pre-test, post-test, discussion board
Week 5: Policy Pre-test, post-test discussion board, final exam

Evaluation methods	Students will be evaluated using a point system.700 points possible 2 exams, 5 pre-tests, 5 post-tests, 5 discuss Grading Scale: 700-630 = A; 629-560= B; 559-490 = C; 489- 420 = D; less than 420 = F

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H.A.R.T. 1301.1185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ELECTRICITY PRINCIPLES

Theory of electricity including proper use of test equipment, AC circuits, and air conditioning and refrigeration control component theory and operation, schematic symbols, schematic reading single phase and three phase motors and controls.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	silver soldering	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Ch 12/Take CH 12 Quiz Using Lab Book
3	silver soldering	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Ch 12/Take CH 12 Quiz Using Lab Book
4	12.1-12.15	Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Ch 12/Take CH 12 Quiz Using Lab Book
5			
6	12.16-12.23	Practice checking single phase motors for shorts and grounds; identifying common, start, run terminals.	Read Ch 12/Take CH 12 Quiz Using Lab Book
7		Practice wiring and running shaded-pole motors; split-phase motors with current and solid-state relays.	Read Ch 12/Take CH 12 Quiz Using Lab Book
8	CH 12 TEST	Wire series and parallel circuits on "ohms law" practice board. Practice basic troubleshooting on practice board.	Read Ch 12/Take CH 12 Quiz Using Lab Book/Ch 12 Test Using Blackboard
9			Read Ch 17/Take CH 17 Quiz Using Lab Book
10	17.1-17.15	Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Ch 17/Take CH 17 Quiz Using Lab Book
11		Practice wire sizing for power circuits; wiring control circuits; troubleshooting single-phase and three-phase circuits.	Read Ch 17/Take CH 17 Quiz Using Lab Book
12	17.16-17.30	Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book
13		Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book
14	TEST CH 17	Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book/Ch 17 Test Using Blackboard
15		Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book

H.A.R.T. 1301			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	18.1-18.4	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
17		Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
18	18.5-18.7	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
19		Practice wiring simple gas and electric furnaces.	Read Unit 18/Take CH 18 Quiz Using Lab Book
20	TEST CH 18	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book/Ch 18 Test Using Blackboard
21		Practice wiring simple gas and electric furnaces.	Read Ch 19/Take CH 19 Quiz Using Lab Book
22	19.1-19.12	Practice wiring simple gas and electric furnaces.	Complete Schematic Symbol Review/Read Ch 19/Take Ch 19 Quiz Using Lab Book
23	SYMBOLS	Practice wiring simple gas and electric furnaces.	Complete Schematic Symbol Review/Read Ch 19/Take Ch 19 Quiz Using Lab Book
24	TEST CH 19	Practice wiring simple gas and electric furnaces.	Read Ch 19/Take CH 19 Quiz Using Lab Book/Ch 19 Test Using Blackboard
25		Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
26	20.1-20.14	Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
27		Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
28	TEST CH 20	Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book/Ch 20 Test Using Blackboard

H.A.R.T. 1301.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ELECTRICITY PRINCIPLES

Theory of electricity including proper use of test equipment, AC circuits, and air conditioning and refrigeration control component theory and operation, schematic symbols, schematic reading single phase and three phase motors and controls.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	silver soldering	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Ch 12/Take CH 12 Quiz Using Lab Book
3	silver soldering	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Ch 12/Take CH 12 Quiz Using Lab Book
4	12.1-12.15	Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Ch 12/Take CH 12 Quiz Using Lab Book
5			
6	12.16-12.23	Practice checking single phase motors for shorts and grounds; identifying common, start, run terminals.	Read Ch 12/Take CH 12 Quiz Using Lab Book
7		Practice wiring and running shaded-pole motors; split-phase motors with current and solid-state relays.	Read Ch 12/Take CH 12 Quiz Using Lab Book
8	CH 12 TEST	Wire series and parallel circuits on "ohms law" practice board. Practice basic troubleshooting on practice board.	Read Ch 12/Take CH 12 Quiz Using Lab Book/Ch 12 Test Using Blackboard
9			Read Ch 17/Take CH 17 Quiz Using Lab Book
10	17.1-17.15	Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Ch 17/Take CH 17 Quiz Using Lab Book
11		Practice wire sizing for power circuits; wiring control circuits; troubleshooting single-phase and three-phase circuits.	Read Ch 17/Take CH 17 Quiz Using Lab Book
12	17.16-17.30	Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book
13		Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book
14	TEST CH 17	Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book/Ch 17 Test Using Blackboard
15		Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book

H.A.R.T. 1301			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	18.1-18.4	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
17		Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
18	18.5-18.7	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
19		Practice wiring simple gas and electric furnaces.	Read Unit 18/Take CH 18 Quiz Using Lab Book
20	TEST CH 18	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book/Ch 18 Test Using Blackboard
21		Practice wiring simple gas and electric furnaces.	Read Ch 19/Take CH 19 Quiz Using Lab Book
22	19.1-19.12	Practice wiring simple gas and electric furnaces.	Complete Schematic Symbol Review/Read Ch 19/Take Ch 19 Quiz Using Lab Book
23	SYMBOLS	Practice wiring simple gas and electric furnaces.	Complete Schematic Symbol Review/Read Ch 19/Take Ch 19 Quiz Using Lab Book
24	TEST CH 19	Practice wiring simple gas and electric furnaces.	Read Ch 19/Take CH 19 Quiz Using Lab Book/Ch 19 Test Using Blackboard
25		Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
26	20.1-20.14	Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
27		Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
28	TEST CH 20	Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book/Ch 20 Test Using Blackboard

H.A.R.T. 1301.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ELECTRICITY PRINCIPLES

Theory of electricity including proper use of test equipment, AC circuits, and air conditioning and refrigeration control component theory and operation, schematic symbols, schematic reading single phase and three phase motors and controls.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	silver soldering	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Ch 12/Take CH 12 Quiz Using Lab Book
3	silver soldering	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Ch 12/Take CH 12 Quiz Using Lab Book
4	12.1-12.15	Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Ch 12/Take CH 12 Quiz Using Lab Book
5			
6	12.16-12.23	Practice checking single phase motors for shorts and grounds; identifying common, start, run terminals.	Read Ch 12/Take CH 12 Quiz Using Lab Book
7		Practice wiring and running shaded-pole motors; split-phase motors with current and solid-state relays.	Read Ch 12/Take CH 12 Quiz Using Lab Book
8	CH 12 TEST	Wire series and parallel circuits on "ohms law" practice board. Practice basic troubleshooting on practice board.	Read Ch 12/Take CH 12 Quiz Using Lab Book/Ch 12 Test Using Blackboard
9			Read Ch 17/Take CH 17 Quiz Using Lab Book
10	17.1-17.15	Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Ch 17/Take CH 17 Quiz Using Lab Book
11		Practice wire sizing for power circuits; wiring control circuits; troubleshooting single-phase and three-phase circuits.	Read Ch 17/Take CH 17 Quiz Using Lab Book
12	17.16-17.30	Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book
13		Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book
14	TEST CH 17	Practice wiring simple gas and electric furnaces.	Read Ch 17/Take CH 17 Quiz Using Lab Book/Ch 17 Test Using Blackboard
15		Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book

H.A.R.T. 1301			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	18.1-18.4	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
17		Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
18	18.5-18.7	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book
19		Practice wiring simple gas and electric furnaces.	Read Unit 18/Take CH 18 Quiz Using Lab Book
20	TEST CH 18	Practice wiring simple gas and electric furnaces.	Read Ch 18/Take CH 18 Quiz Using Lab Book/Ch 18 Test Using Blackboard
21		Practice wiring simple gas and electric furnaces.	Read Ch 19/Take CH 19 Quiz Using Lab Book
22	19.1-19.12	Practice wiring simple gas and electric furnaces.	Complete Schematic Symbol Review/Read Ch 19/Take Ch 19 Quiz Using Lab Book
23	SYMBOLS	Practice wiring simple gas and electric furnaces.	Complete Schematic Symbol Review/Read Ch 19/Take Ch 19 Quiz Using Lab Book
24	TEST CH 19	Practice wiring simple gas and electric furnaces.	Read Ch 19/Take CH 19 Quiz Using Lab Book/Ch 19 Test Using Blackboard
25		Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
26	20.1-20.14	Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
27		Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book
28	TEST CH 20	Practice wiring simple gas and electric furnaces.	Read Ch 20/Take Ch 20 Quiz Using Lab Book/Ch 20 Test Using Blackboard

H.A.R.T. 1303.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

CONTROLS

Basic electrical, pressure, temperature controls including motor starting devices, operating relays, and troubleshooting operating relays, and troubleshooting safety controls and devices. Emphasis on use of wiring diagrams to analyze high and low voltage circuits.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned without prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems.Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be required to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment. Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	13.1	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
3		Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
4	13.2	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
5		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
6	13.3	Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
7		Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
8	13.4	Practice wiring capacitors and potential relays; wiring PSC motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
9		Practice wiring capacitors and potential relays; wiring PSC motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
10	13.5	Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
11		Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
12	13.6	Practice wiring simple gas and electric furnaces.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
13		Practice wiring simple gas and electric furnaces.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
14	TEST CH 13	Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 13/Ch 13 Quiz Using Lab Book/Ch13 Test Using Blackboard
15		Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	14.1-14.3	Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
17		Practice adjust electrical and electromechanical controls on lab training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
18	14.4-14.6	Practice adjust electrical and electromechanical controls on lab training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
19		Practice wiring, troubleshooting and adjusting overloads and other electrical and temperature safety devices on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
20	14..7-14.9	Practice wiring, troubleshooting and adjusting overloads and other electrical and temperature safety devices on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
21		Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
22	14.10-14.12	Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
23		Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
24	14.10-14.12	Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
25		Practice drawing schematic symbols and schematics of specific units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
26	14.13-14.16	Practice drawing schematic symbols and schematics of specific units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
27		Practice control wiring on training units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
28	14.17-14.19	Practice control wiring on training units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
29	TEST CH 14	Practice using schematics to wire high voltage control circuits as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
30	FINAL TEST		

H.A.R.T. 1303.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

CONTROLS

Basic electrical, pressure, temperature controls including motor starting devices, operating relays, and troubleshooting operating relays, and troubleshooting safety controls and devices. Emphasis on use of wiring diagrams to analyze high and low voltage circuits.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned without prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems.Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be required to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment. Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1			
2	13.1	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
3		Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
4	13.2	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
5		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
6	13.3	Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
7		Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
8	13.4	Practice wiring capacitors and potential relays; wiring PSC motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
9		Practice wiring capacitors and potential relays; wiring PSC motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
10	13.5	Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
11		Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
12	13.6	Practice wiring simple gas and electric furnaces.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
13		Practice wiring simple gas and electric furnaces.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
14	TEST CH 13	Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 13/Ch 13 Quiz Using Lab Book/Ch13 Test Using Blackboard
15		Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

16	14.1-14.3	Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
17		Practice adjust electrical and electromechanical controls on lab training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
18	14.4-14.6	Practice adjust electrical and electromechanical controls on lab training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
19		Practice wiring, troubleshooting and adjusting overloads and other electrical and temperature safety devices on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
20	14..7-14.9	Practice wiring, troubleshooting and adjusting overloads and other electrical and temperature safety devices on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
21		Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
22	14.10-14.12	Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
23		Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
24	14.10-14.12	Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
25		Practice drawing schematic symbols and schematics of specific units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
26	14.13-14.16	Practice drawing schematic symbols and schematics of specific units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
27		Practice control wiring on training units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
28	14.17-14.19	Practice control wiring on training units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
29	TEST CH 14	Practice using schematics to wire high voltage control circuits as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
30	FINAL TEST		

H.A.R.T. 1303.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

CONTROLS

Basic electrical, pressure, temperature controls including motor starting devices, operating relays, and troubleshooting operating relays, and troubleshooting safety controls and devices. Emphasis on use of wiring diagrams to analyze high and low voltage circuits.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned without prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems.Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be required to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment. Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1			
2	13.1	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
3		Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
4	13.2	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
5		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
6	13.3	Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
7		Practice safe use of voltmeter and ammeter to take electrical measurements with voltage on.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
8	13.4	Practice wiring capacitors and potential relays; wiring PSC motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
9		Practice wiring capacitors and potential relays; wiring PSC motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
10	13.5	Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
11		Practice checking three-phase motors; wiring three-phase motors; reversing three-phase motors.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
12	13.6	Practice wiring simple gas and electric furnaces.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
13		Practice wiring simple gas and electric furnaces.	Read Unit 13/Take Chapter 13 Quiz Using Lab Book
14	TEST CH 13	Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 13/Ch 13 Quiz Using Lab Book/Ch13 Test Using Blackboard
15		Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	14.1-14.3	Practice wire basic control board. Practice adjusting temperature and pressure switches as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
17		Practice adjust electrical and electromechanical controls on lab training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
18	14.4-14.6	Practice adjust electrical and electromechanical controls on lab training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
19		Practice wiring, troubleshooting and adjusting overloads and other electrical and temperature safety devices on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
20	14..7-14.9	Practice wiring, troubleshooting and adjusting overloads and other electrical and temperature safety devices on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
21		Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
22	14.10-14.12	Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
23		Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
24	14.10-14.12	Practice wiring, troubleshooting and adjusting oil failure control on training units as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
25		Practice drawing schematic symbols and schematics of specific units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
26	14.13-14.16	Practice drawing schematic symbols and schematics of specific units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
27		Practice control wiring on training units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
28	14.17-14.19	Practice control wiring on training units assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
29	TEST CH 14	Practice using schematics to wire high voltage control circuits as assigned.	Read Unit 14/Take Chapter 14 Quiz Using Lab Book
30	FINAL TEST		

H.A.R.T. 1307.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

REFRIGERATION PRINCIPLES

The basic refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, EPA requirements, evacuation, recovery, recycling, reclamation.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	Silver Solder	Cutting, swaging, flaring, soldering of copper tubing. Economical planning and use of copper and silver solder.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
3	1.1-1.6	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
4		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
5		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
6	1.7-1.10	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
7		Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
8	1.11-1.13	Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
9		Practice using recovery machine on training units assigned.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
10	TEST CH 1	practice evacuating using vacuum pumps on training units assigned.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book/Test Ch 1 Using Blackboard
11	3.1-3.15	Practice using vacuum pumps and vacuum gauges on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
12		Practice charging by vapor method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
13	3.16-3.21	Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
14		Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
15	TEST CH 3	Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book/Test Ch 3 Using Blackboard

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
17	7.1-7.9	Practice measuring low side and high side measurements in PSIG; converting to PSIA.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
18			Read Unit 7/Take Chapter 7 Quiz Using Lab Book
19	7.10-7.19	Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
20		Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
21	TEST CH 7	Practice using recovery machine on training units assigned.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book/Ch 7 Test Using Blackboard
22		practice evacuating using vacuum pumps on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
23		Practice using vacuum pumps and vacuum gauges on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
24		Practice charging by vapor method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
25	8.1-8.3	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
26		Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
27	8.4-8.5	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
28		Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
29	8.6-8.8	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
30		FINAL TEST	

H.A.R.T. 1307.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

REFRIGERATION PRINCIPLES

The basic refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, EPA requirements, evacuation, recovery, recycling, reclamation.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students ar expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working syster Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to and record readings with instruments and then analyze these readings to determine problems and to decide which adj and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools instruments effectively, and learn to complete work professionally. From time to time students will be required to read from technical journals and write a synopsis. Each day students will be asked to make operational checks and record on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab shee describing and justifying the work performed on each piece of equipment Students must complete all assignments giv satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	Silver Solder	Cutting, swaging, flaring, soldering of copper tubing. Economical planning and use of copper and silver solder.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
3	1.1-1.6	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
4		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
5		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
6	1.7-1.10	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
7		Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
8	1.11-1.13	Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
9		Practice using recovery machine on training units assigned.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
10	TEST CH 1	practice evacuating using vacuum pumps on training units assigned.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book/Test Ch 1 Using Blackboard
11	3.1-3.15	Practice using vacuum pumps and vacuum gauges on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
12		Practice charging by vapor method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
13	3.16-3.21	Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
14		Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
15	TEST CH 3	Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book/Test Ch 3 Using Blackboard

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
17	7.1-7.9	Practice measuring low side and high side measurements in PSIG; converting to PSIA.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
18			Read Unit 7/Take Chapter 7 Quiz Using Lab Book
19	7.10-7.19	Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
20		Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
21	TEST CH 7	Practice using recovery machine on training units assigned.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book/Ch 7 Test Using Blackboard
22		practice evacuating using vacuum pumps on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
23		Practice using vacuum pumps and vacuum gauges on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
24		Practice charging by vapor method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
25	8.1-8.3	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
26		Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
27	8.4-8.5	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
28		Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
29	8.6-8.8	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
30		FINAL TEST	
31			
32			

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

REFRIGERATION PRINCIPLES

The basic refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, EPA requirements, evacuation, recovery, recycling, reclamation.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students ar expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working syster Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to and record readings with instruments and then analyze these readings to determine problems and to decide which adj and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools instruments effectively, and learn to complete work professionally. From time to time students will be required to read from technical journals and write a synopsis. Each day students will be asked to make operational checks and record on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab shee describing and justifying the work performed on each piece of equipment Students must complete all assignments giv satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	Silver Solder	Cutting, swaging, flaring, soldering of copper tubing. Economical planning and use of copper and silver solder.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
3	1.1-1.6	Cutting, swaging, flaring, soldering of steel tubing. Economical planning and use of copper and silver solder. Process tube adapter kit and leak checking with solution.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
4		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
5		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
6	1.7-1.10	Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
7		Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
8	1.11-1.13	Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
9		Practice using recovery machine on training units assigned.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book
10	TEST CH 1	practice evacuating using vacuum pumps on training units assigned.	Read Unit 1/Take Chapter 1 Quiz Using Lab Book/Test Ch 1 Using Blackboard
11	3.1-3.15	Practice using vacuum pumps and vacuum gauges on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
12		Practice charging by vapor method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
13	3.16-3.21	Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
14		Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book
15	TEST CH 3	Practice charging by weight method on training units assigned.	Read Unit 3/Take Chapter 3 Quiz Using Lab Book/Test Ch 3 Using Blackboard

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Use of flare and compression fittings. Use of pinch-off tool to seal system with pressure on it.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
17	7.1-7.9	Practice measuring low side and high side measurements in PSIG; converting to PSIA.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
18		Practice measuring low side and high side measurements in PSIG; converting to PSIA.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
19	7.10-7.19	Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
20		Practice using thermometers to measure temperature of air and refrigerant; use of gauges.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book
21	TEST CH 7	Practice using recovery machine on training units assigned.	Read Unit 7/Take Chapter 7 Quiz Using Lab Book/Ch 7 Test Using Blackboard
22		practice evacuating using vacuum pumps on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
23		Practice using vacuum pumps and vacuum gauges on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
24		Practice charging by vapor method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
25	8.1-8.3	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
26		Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
27	8.4-8.5	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
28		Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
29	8.6-8.8	Practice charging by weight method on training units assigned.	Read Unit 8/Take Chapter 8 Quiz Using Lab Book
30		FINAL TEST	
31			
32			

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

HVAC SHOP PRACTICES AND TOOLS

Tools and instruments used in the HVAC industry. Includes proper application, use and care of these tools; and tubing and piping practices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	silver soldering	Practice Safe and Proper Use of Oxygen-Acetylene Torches	Read Ch 4/Take Ch 4 Quiz Using Lab Book
3	silver soldering	Practice Safe and Proper Use of Oxygen-Acetylene Torches	Read Ch 4/Take Ch 4 Quiz Using Lab Book
4	4.1-4.8	Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
5		Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
6	4.1-4.8	Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
7	TEST CH 4	Practice Safe Use of Electrical Equipment	Read Ch 4/Take Ch 4 Quiz Using Lab Book/Take Ch 4 Test Using Blackoard
8		Practice Safety in Moving Heavy Objects	Read Ch 5/Take Ch 5 Quiz Using Lab Book
9	5.1-5.7	Practice Ladder Safety and Proper Use	Read Ch 5/Take Ch 5 Quiz Using Lab Book
10		Practice Ladder Safety and Proper Use	Read Ch 5/Take Ch 5 Quiz Using Lab Book
11	TEST CH 5	Introduction and Proper Use of Tubing Tools and Brushes	Read Ch 5/Take Ch 5 Quiz Using Lab Book/Take Ch 5 Test Using Blackboard
12		Introduction and Proper Use of Specialized Hand Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
13	9.1-9.5	Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
14		Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
15	9.6-9.10	Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16			Read Ch 9/Take Ch 9 Quiz Using Lab Book
17	9.11-9.15	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
18		Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
19	9.16-9.21	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
20		Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
21	TEST CH 9	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book / Take Ch 9 Test Using Blackboard
22		Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
23	10.1-10.5	Practice Recovery on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
24		Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
25	10.6-10.8	Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
26		Introduction and Proper Use of Refrigerant Leak Detectors and other Specialized HVAC Tools/Use of Gauges	Read Ch 10/Take Ch 10 Quiz Using Lab Book
27		Introduction and Proper Use of Refrigerant Leak Detectors and other Specialized HVAC Tools/Use of Gauges	Read Ch 10/Take Ch 10 Quiz Using Lab Book/Take Ch 10 Test Using Blackboard

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

HVAC SHOP PRACTICES AND TOOLS

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DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	silver soldering	Practice Safe and Proper Use of Oxygen-Acetylene Torches	Read Ch 4/Take Ch 4 Quiz Using Lab Book
3	silver soldering	Practice Safe and Proper Use of Oxygen-Acetylene Torches	Read Ch 4/Take Ch 4 Quiz Using Lab Book
4		Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
5		Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
6	4.1-4.8	Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
7	TEST CH 4	Practice Safe Use of Electrical Equipment	Read Ch 4/Take Ch 4 Quiz Using Lab Book/Take Ch 4 Test Using Blackoard
8		Practice Safety in Moving Heavy Objects	Read Ch 5/Take Ch 5 Quiz Using Lab Book
9	5.1-5.7	Practice Ladder Safety and Proper Use	Read Ch 5/Take Ch 5 Quiz Using Lab Book
10		Practice Ladder Safety and Proper Use	Read Ch 5/Take Ch 5 Quiz Using Lab Book
11	TEST CH 5	Introduction and Proper Use of Tubing Tools and Brushes	Read Ch 5/Take Ch 5 Quiz Using Lab Book/Take Ch 5 Test Using Blackboard
12		Introduction and Proper Use of Specialized Hand Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
13	9.1-9.5	Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
14		Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
15	9.6-9.10	Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16			Read Ch 9/Take Ch 9 Quiz Using Lab Book
17	9.11-9.15	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
18		Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
19	9.16-9.21	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
20		Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
21	TEST CH 9	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book / Take Ch 9 Test Using Blackboard
22		Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
23	10.1-10.5	Practice Recovery on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
24		Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
25	10.6-10.8	Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
26		Introduction and Proper Use of Refrigerant Leak Detectors and other Specialized HVAC Tools/Use of Gauges	Read Ch 10/Take Ch 10 Quiz Using Lab Book
27		Introduction and Proper Use of Refrigerant Leak Detectors and other Specialized HVAC Tools/Use of Gauges	Read Ch 10/Take Ch 10 Quiz Using Lab Book/Take Ch 10 Test Using Blackboard

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

HVAC SHOP PRACTICES AND TOOLS

Tools and instruments used in the HVAC industry. Includes proper application, use and care of these tools; and tubing and piping practices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	silver soldering	Practice Safe and Proper Use of Oxygen-Acetylene Torches	Read Ch 4/Take Ch 4 Quiz Using Lab Book
3	silver soldering	Practice Safe and Proper Use of Oxygen-Acetylene Torches	Read Ch 4/Take Ch 4 Quiz Using Lab Book
4		Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
5		Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
6	4.1-4.8	Practice Safe Use of voltmeter, ammeter with power on	Read Ch 4/Take Ch 4 Quiz Using Lab Book
7	TEST CH 4	Practice Safe Use of Electrical Equipment	Read Ch 4/Take Ch 4 Quiz Using Lab Book/Take Ch 4 Test Using Blackoard
8		Practice Safety in Moving Heavy Objects	Read Ch 5/Take Ch 5 Quiz Using Lab Book
9	5.1-5.7	Practice Ladder Safety and Proper Use	Read Ch 5/Take Ch 5 Quiz Using Lab Book
10		Practice Ladder Safety and Proper Use	Read Ch 5/Take Ch 5 Quiz Using Lab Book
11	TEST CH 5	Introduction and Proper Use of Tubing Tools and Brushes	Read Ch 5/Take Ch 5 Quiz Using Lab Book/Take Ch 5 Test Using Blackboard
12		Introduction and Proper Use of Specialized Hand Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
13	9.1-9.5	Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
14		Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book
15	9.6-9.10	Introduction and Proper Use of Power Tools	Read Ch 9/Take Ch 9 Quiz Using Lab Book

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16			Read Ch 9/Take Ch 9 Quiz Using Lab Book
17	9.11-9.15	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
18		Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
19	9.16-9.21	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
20		Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book
21	TEST CH 9	Practice Recovery on Assigned Units	Read Ch 9/Take Ch 9 Quiz Using Lab Book / Take Ch 9 Test Using Blackboard
22		Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
23	10.1-10.5	Practice Recovery on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
24		Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
25	10.6-10.8	Practice Evacuation on Assigned Units	Read Ch 10/Take Ch 10 Quiz Using Lab Book
26		Introduction and Proper Use of Refrigerant Leak Detectors and other Specialized HVAC Tools/Use of Gauges	Read Ch 10/Take Ch 10 Quiz Using Lab Book
27		Introduction and Proper Use of Refrigerant Leak Detectors and other Specialized HVAC Tools/Use of Gauges	Read Ch 10/Take Ch 10 Quiz Using Lab Book/Take Ch 10 Test Using Blackboard

H.A.R.T. 1341.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

RESIDENTIAL AIR CONDITIONING AND REFRIGERATION

Components, applications, and installation of mechanical air conditioning and refrigeration systems includi operating conditions, troubleshooting, repair, and charging of domestic refrigerators, freezers, window air conditioners and central split systems.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice eac skill learned without prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independe and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analuze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tool instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical jou and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	45.1-45.10	Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
3		Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
4	45.11-45.15	Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
5		Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
6		Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
7	45.16-45.20	Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
8		Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
9	45.21-45.25	Gaskets, drain lines, Water filters,Leveling Refrigerators & Freezers, Repair of Interior	Read Ch 45/Take Ch 45 Quiz Using Lab Book
10		Cooling Capacity, Configuration of Cubic Feet	Read Ch 45/Take Ch 45 Quiz Using Lab Book
11	45.26-45.31	Evaporator Installation, Airflow, Defrost	Read Ch 45/Take Ch 45 Quiz Using Lab Book
12		Evaporator Installation, Airflow, Defrost	Read Ch 45/Take Ch 45 Quiz Using Lab Book
13	TEST CH 45	Practice sizing compressors for domestic refrigerators and freezers.	Read Ch 45/Take Ch 45 Quiz Using Lab Book
14		Metering Device Maintenance, Installation, Repair	Read Ch 45/Take Ch 45 Quiz Using Lab Book/Take Ch 45 Test Using Blackboard
15	46.1-46.2	Practice checking typical operating conditions of refrigerators & freezers	Read Ch 46/Take Ch 46 Quiz Using Lab Book

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HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Practice checking typical operating conditions of refrigerators & freezers	Read Ch 46/Take Ch 46 Quiz Using Lab Book
17	46.3	Icemaker operation and troubleshooting	Read Ch 46/Take Ch 46 Quiz Using Lab Book
18		Icemaker operation and troubleshooting	Read Ch 46/Take Ch 46 Quiz Using Lab Book
19	46.4	Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
20		Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
21	46.5	Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
22		Reading & Interpretation of Controls and Wiring Diagrams Defrost Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
23	45.6	Reading & Interpretation of Controls and Wiring Diagrams Defrost Cycle & Icemaker	Read Ch 46/Take Ch 46 Quiz Using Lab Book
24		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Ch 46/Take Ch 46 Quiz Using Lab Book
25	46.70	Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
26		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
27	46.8-46.9	Window Units Refrigeration & Cooling Cycles (Cooling Only Units)	Read Unit 46/Take Ch 46 Quiz Using Lab Book
28		Window Units Refrigeration & Cooling Cycles (Heat Pump Units)	Read Unit 46/Take Ch 46 Quiz Using Lab Book / Take Chapter 46 Test Using Blackboard
29	46.70	Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
30		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
31		Window Units Refrigeration & Cooling Cycles (Cooling Only Units)	Read Unit 46/Take Ch 46 Quiz Using Lab Book

H.A.R.T. 1341.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

RESIDENTIAL AIR CONDITIONING AND REFRIGERATION

Components, applications, and installation of mechanical air conditioning and refrigeration systems includi operating conditions, troubleshooting, repair, and charging of domestic refrigerators, freezers, window air conditioners and central split systems.

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DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	45.1-45.10	Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
3		Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
4	45.11-45.15	Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
5		Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
6		Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
7	45.16-45.20	Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
8		Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
9	45.21-45.25	Gaskets, drain lines, Water filters,Leveling Refrigerators & Freezers, Repair of Interior	Read Ch 45/Take Ch 45 Quiz Using Lab Book
10		Cooling Capacity, Configuration of Cubic Feet	Read Ch 45/Take Ch 45 Quiz Using Lab Book
11	45.26-45.31	Evaporator Installation, Airflow, Defrost	Read Ch 45/Take Ch 45 Quiz Using Lab Book
12		Evaporator Installation, Airflow, Defrost	Read Ch 45/Take Ch 45 Quiz Using Lab Book
13	TEST CH 45	Practice sizing compressors for domestic refrigerators and freezers.	Read Ch 45/Take Ch 45 Quiz Using Lab Book
14		Metering Device Maintenance, Installation, Repair	Read Ch 45/Take Ch 45 Quiz Using Lab Book/Take Ch 45 Test Using Blackboard
15	46.1-46.2	Practice checking typical operating conditions of refrigerators & freezers	Read Ch 46/Take Ch 46 Quiz Using Lab Book

H.A.R.T. 1341.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Practice checking typical operating conditions of refrigerators & freezers	Read Ch 46/Take Ch 46 Quiz Using Lab Book
17	46.3	Icemaker operation and troubleshooting	Read Ch 46/Take Ch 46 Quiz Using Lab Book
18		Icemaker operation and troubleshooting	Read Ch 46/Take Ch 46 Quiz Using Lab Book
19	46.4	Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
20		Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
21	46.5	Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
22		Reading & Interpretation of Controls and Wiring Diagrams Defrost Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
23	45.6	Reading & Interpretation of Controls and Wiring Diagrams Defrost Cycle & Icemaker	Read Ch 46/Take Ch 46 Quiz Using Lab Book
24		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Ch 46/Take Ch 46 Quiz Using Lab Book
25	46.70	Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
26		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
27	46.8-46.9	Window Units Refrigeration & Cooling Cycles (Cooling Only Units)	Read Unit 46/Take Ch 46 Quiz Using Lab Book
28		Window Units Refrigeration & Cooling Cycles (Heat Pump Units)	Read Unit 46/Take Ch 46 Quiz Using Lab Book / Take Chapter 46 Test Using Blackboard
29	46.70	Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
30		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
31		FINAL TEST	

H.A.R.T. 1341.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

RESIDENTIAL AIR CONDITIONING AND REFRIGERATION

Components, applications, and installation of mechanical air conditioning and refrigeration systems including operating conditions, troubleshooting, repair, and charging of domestic refrigerators, freezers, window air conditioners and central split systems.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned without prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analuze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	45.1-45.10	Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
3		Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
4	45.11-45.15	Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
5		Practice Use of Electrical Schematic to Troubleshoot Domestic Refrigerators	Read Ch 45/Take Ch 45 Quiz Using Lab Book
6		Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
7	45.16-45.20	Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
8		Refrigeration Cycle, Identification of Parts and functions of parts found in domestic appliances	Read Ch 45/Take Ch 45 Quiz Using Lab Book
9	45.21-45.25	Gaskets, drain lines, Water filters,Leveling Refrigerators & Freezers, Repair of Interior	Read Ch 45/Take Ch 45 Quiz Using Lab Book
10		Cooling Capacity, Configuration of Cubic Feet	Read Ch 45/Take Ch 45 Quiz Using Lab Book
11	45.26-45.31	Evaporator Installation, Airflow, Defrost	Read Ch 45/Take Ch 45 Quiz Using Lab Book
12		Evaporator Installation, Airflow, Defrost	Read Ch 45/Take Ch 45 Quiz Using Lab Book
13	TEST CH 45	Practice sizing compressors for domestic refrigerators and freezers.	Read Ch 45/Take Ch 45 Quiz Using Lab Book
14		Metering Device Maintenance, Installation, Repair	Read Ch 45/Take Ch 45 Quiz Using Lab Book/Take Ch 45 Test Using Blackboard
15	46.1-46.2	Practice checking typical operating conditions of refrigerators & freezers	Read Ch 46/Take Ch 46 Quiz Using Lab Book

H.A.R.T. 1341.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Practice checking typical operating conditions of refrigerators & freezers	Read Ch 46/Take Ch 46 Quiz Using Lab Book
17	46.3	Icemaker operation and troubleshooting	Read Ch 46/Take Ch 46 Quiz Using Lab Book
18		Icemaker operation and troubleshooting	Read Ch 46/Take Ch 46 Quiz Using Lab Book
19	46.4	Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
20		Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
21	46.5	Reading & Interpretation of Controls and Wiring Diagrams Cooling Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
22		Reading & Interpretation of Controls and Wiring Diagrams Defrost Cycle	Read Ch 46/Take Ch 46 Quiz Using Lab Book
23	45.6	Reading & Interpretation of Controls and Wiring Diagrams Defrost Cycle & Icemaker	Read Ch 46/Take Ch 46 Quiz Using Lab Book
24		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Ch 46/Take Ch 46 Quiz Using Lab Book
25	46.70	Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
26		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
27	46.8-46.9	Window Units Refrigeration & Cooling Cycles (Cooling Only Units)	Read Unit 46/Take Ch 46 Quiz Using Lab Book
28		Window Units Refrigeration & Cooling Cycles (Heat Pump Units)	Read Unit 46/Take Ch 46 Quiz Using Lab Book / Take Chapter 46 Test Using Blackboard
29	46.70	Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
30		Service and Repair of Window Units, Maintenance, Charges, Evacuation, Changeouts	Read Unit 46/Take Ch 46 Quiz Using Lab Book
31		FINAL TEST	

H.A.R.T. 1345.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

GAS & ELECTRIC HEAT

Procedures and principles used in installing and servicing heating systems including gas-fired and electric furnaces.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice eachskill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successrully complete assignments. Students must learn to take and record readings with instruments and then analyz readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student w learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time time, students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be required to fill work order/ lab sheet describig and justifying the work performed on each piece of equipment. Students must complete all assignme given to the satisfation of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	30.1-30.5	Practice checking amperage and voltage in electric furnaces, wiring electric furnace.	Read Ch 30/Take Ch 30 Quiz Using Lab Book
3		Practice measuring BTU output of electric furnace by converting watts on assigned units	Read Ch 30/Take Ch 30 Quiz Using Lab Book/30-2 Assign Using Lab Book
4	30.6-30.10	Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Take Ch 30 Quiz Using Lab Book
5		Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Take Ch 30 Quiz Using Lab Book
6	30.11-30.15	Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Tke Ch 30 Quiz Using Lab Book/30-6 Assign Using Lab Book
7		Practice converting Watts to BTUs using Ohms Law on assigned units.	Read Ch 30/Take Ch 30 Quiz Using Lab Book
8	30.16-30.21	Installation & Wiring of Thermostats, Circuit Boards, Sequencers, & Contactors (Relays)	Read Ch 30/Take Ch 30 Quiz Using Lab Book
9		Installation & Wiring of Thermostats, Circuit Boards, Sequencers, & Contactors (Relays)	Read Ch 30/Take Ch 30 Quiz Using Lab Book
10	30.16-30.21	Installation & Wiring of Blower/Condenser Motors,Use of Contactors for Control	Read Ch 30/Take Ch 30 Quiz Using Lab Book
11		Installation & Wiring of Blower/Condenser Motors,Use of Contactors for Control	Read Ch 30/Take Ch 30 Quiz Using Lab Book
12	TEST CH 30	Practice measuring air flow in electric furnaces using the sensible heat formula on assigned units.	Read Ch 30/Take Ch 30 Quiz Using Lab Book/Take Ch 30 Test Using Blackboard
13		Practice measuring air flow in electric furnaces using the sensible heat formula on assigned units.	Read Ch 31/Take Ch 31 Quiz Using Lab Book
14	31.1-31.5	Practice converting BTUs to Watts on assigned units to find CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book

H.A.R.T. 1345.185 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
15		Practice converting BTUs to Watts on assigned units to find CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
16	31.1-31.5	Practice Checking Volts and Amps on Gas Furnace, Furnace Familiarization	Read Ch 31/Take Ch 31 Quiz Using Lab Book
17		Practice Checking Volts and Amps on Gas Furnace, Furnace Familiarization	Read Ch 31/Take Ch 31 Quiz Using Lab Book
18	3.6-31.10	Use of Manometer to Check Gas Pressures, Use of Analyzer to Check Combustion	Read Ch 31/Take Ch 31 Quiz Using Lab Book
19		Use of Manometer to Check Gas Pressures, Use of Analyzer to Check Combustion	Read Ch 31/Take Ch 31 Quiz Using Lab Book
20	31.11-31.15	Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
21		Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
22	31.16-31.20	Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
23		Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
24	31.21-31.25	Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
25		Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
26	31.26-31.30	Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book
27		Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book
28	31.26-31.30	Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book/Take Ch 31 Test Using Blackboard

H.A.R.T. 1345.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

GAS & ELECTRIC HEAT

Procedures and principles used in installing and servicing heating systems including gas-fired and electric furnaces.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice eachskill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successrully complete assignments. Students must learn to take and record readings with instruments and then analyz readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student w learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time time, students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be required to fill work order/ lab sheet describig and justifying the work performed on each piece of equipment. Students must complete all assignme given to the satisfation of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	30.1-30.5	Practice checking amperage and voltage in electric furnaces, wiring electric furnace.	Read Ch 30/Take Ch 30 Quiz Using Lab Book
3		Practice measuring BTU output of electric furnace by converting watts on assigned units	Read Ch 30/Take Ch 30 Quiz Using Lab Book/30-2 Assign Using Lab Book
4	30.6-30.10	Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Take Ch 30 Quiz Using Lab Book
5		Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Take Ch 30 Quiz Using Lab Book
6	30.11-30.15	Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Tke Ch 30 Quiz Using Lab Book/30-6 Assign Using Lab Book
7		Practice converting Watts to BTUs using Ohms Law on assigned units.	Read Ch 30/Take Ch 30 Quiz Using Lab Book
8	30.16-30.21	Installation & Wiring of Thermostats, Circuit Boards, Sequencers, & Contactors (Relays)	Read Ch 30/Take Ch 30 Quiz Using Lab Book
9		Installation & Wiring of Thermostats, Circuit Boards, Sequencers, & Contactors (Relays)	Read Ch 30/Take Ch 30 Quiz Using Lab Book
10	30.16-30.21	Installation & Wiring of Blower/Condenser Motors,Use of Contactors for Control	Read Ch 30/Take Ch 30 Quiz Using Lab Book
11		Installation & Wiring of Blower/Condenser Motors,Use of Contactors for Control	Read Ch 30/Take Ch 30 Quiz Using Lab Book
12	TEST CH 30	Practice measuring air flow in electric furnaces using the sensible heat formula on assigned units.	Read Ch 30/Take Ch 30 Quiz Using Lab Book/Take Ch 30 Test Using Blackboard
13		Practice measuring air flow in electric furnaces using the sensible heat formula on assigned units.	Read Ch 31/Take Ch 31 Quiz Using Lab Book
14	31.1-31.5	Practice converting BTUs to Watts on assigned units to find CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book

H.A.R.T. 1345.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
15		Practice converting BTUs to Watts on assigned units to find CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
16	31.1-31.5	Practice Checking Volts and Amps on Gas Furnace, Furnace Familiarization	Read Ch 31/Take Ch 31 Quiz Using Lab Book
17		Practice Checking Volts and Amps on Gas Furnace, Furnace Familiarization	Read Ch 31/Take Ch 31 Quiz Using Lab Book
18	3.6-31.10	Use of Manometer to Check Gas Pressures, Use of Analyzer to Check Combustion	Read Ch 31/Take Ch 31 Quiz Using Lab Book
19		Use of Manometer to Check Gas Pressures, Use of Analyzer to Check Combustion	Read Ch 31/Take Ch 31 Quiz Using Lab Book
20	31.11-31.15	Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
21		Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
22	31.16-31.20	Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
23		Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
24	31.21-31.25	Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
25		Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
26	31.26-31.30	Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book
27		Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book
28	31.26-31.30	Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book/Take Ch 31 Test Using Blackboard

H.A.R.T. 1345.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

GAS & ELECTRIC HEAT

Procedures and principles used in installing and servicing heating systems including gas-fired and electric furnaces.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice eachskill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successrully complete assignments. Students must learn to take and record readings with instruments and then analyz readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student w learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time time, students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be required to fill work order/ lab sheet describig and justifying the work performed on each piece of equipment. Students must complete all assignme given to the satisfation of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	30.1-30.5	Practice checking amperage and voltage in electric furnaces, wiring electric furnace.	Read Ch 30/Take Ch 30 Quiz Using Lab Book
3		Practice measuring BTU output of electric furnace by converting watts on assigned units	Read Ch 30/Take Ch 30 Quiz Using Lab Book/30-2 Assign Using Lab Book
4	30.6-30.10	Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Take Ch 30 Quiz Using Lab Book
5		Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Take Ch 30 Quiz Using Lab Book
6	30.11-30.15	Checking Radiant Heating Panels Installation, wiring	Read Ch 30/Tke Ch 30 Quiz Using Lab Book/30-6 Assign Using Lab Book
7		Practice converting Watts to BTUs using Ohms Law on assigned units.	Read Ch 30/Take Ch 30 Quiz Using Lab Book
8	30.16-30.21	Installation & Wiring of Thermostats, Circuit Boards, Sequencers, & Contactors (Relays)	Read Ch 30/Take Ch 30 Quiz Using Lab Book
9		Installation & Wiring of Thermostats, Circuit Boards, Sequencers, & Contactors (Relays)	Read Ch 30/Take Ch 30 Quiz Using Lab Book
10	30.16-30.21	Installation & Wiring of Blower/Condenser Motors,Use of Contactors for Control	Read Ch 30/Take Ch 30 Quiz Using Lab Book
11		Installation & Wiring of Blower/Condenser Motors,Use of Contactors for Control	Read Ch 30/Take Ch 30 Quiz Using Lab Book
12	TEST CH 30	Practice measuring air flow in electric furnaces using the sensible heat formula on assigned units.	Read Ch 30/Take Ch 30 Quiz Using Lab Book/Take Ch 30 Test Using Blackboard
13		Practice measuring air flow in electric furnaces using the sensible heat formula on assigned units.	Read Ch 31/Take Ch 31 Quiz Using Lab Book
14	31.1-31.5	Practice converting BTUs to Watts on assigned units to find CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book

H.A.R.T. 1345.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
15		Practice converting BTUs to Watts on assigned units to find CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
16	31.1-31.5	Practice Checking Volts and Amps on Gas Furnace, Furnace Familiarization	Read Ch 31/Take Ch 31 Quiz Using Lab Book
17		Practice Checking Volts and Amps on Gas Furnace, Furnace Familiarization	Read Ch 31/Take Ch 31 Quiz Using Lab Book
18	3.6-31.10	Use of Manometer to Check Gas Pressures, Use of Analyzer to Check Combustion	Read Ch 31/Take Ch 31 Quiz Using Lab Book
19		Use of Manometer to Check Gas Pressures, Use of Analyzer to Check Combustion	Read Ch 31/Take Ch 31 Quiz Using Lab Book
20	31.11-31.15	Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
21		Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
22	31.16-31.20	Installation, Troubleshooting, Maintenance of Gas Valves	Read Ch 31/Take Ch 31 Quiz Using Lab Book
23		Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
24	31.21-31.25	Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
25		Practice checking temperature rise and air flow of gas furnace using CFM	Read Ch 31/Take Ch 31 Quiz Using Lab Book
26	31.26-31.30	Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book
27		Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book
28	31.26-31.30	Troubleshooting, Installation, Repair of Ignition Systems, Thermocouples, Limit & Fan Switches, and circuit boards	Read Ch 31/Take Ch 31 Quiz Using Lab Book/Take Ch 31 Test Using Blackboard

H.A.R.T. 1351.130 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

Energy Mangement

Study of basic heat transfer theory; sensible and latent heat loads; building envelope construction; insulation, lighting, and fenestration types; and conduct energy audit procedures. The course also develops energy audit recommendations based on local utility rates, building use, and construction. Laboratory activities include developing energy audit reports, installing energy saving devices, and measuring energy consumption.

As part of this course students are expected to practice each skill learned without prompting from the instructor especially concentrating o skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. Each day students will be require to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment Students must complete all work to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	TEXT	LAB
F1	LAB	Infrared Camera Application
F2		Blackboard Assignment
F3	LAB	Blower Door Application
F4	TEST	Final Home Energy Audit

H.A.R.T. 1356.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ADVANCED ELECTRICITY FOR HVAC

Advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment including detailed instruction in motors, motor controls, and application of solid state devices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
2	49.1-49.10	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
3		Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
4	49.1-49.10	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
5		Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
6	49.1-49.10	Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
7		Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
8	49.1-49.10	Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
9		Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
10	49.1-49.10	Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
11		Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
12	49.11-49.13	Practice Recharge on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
13		Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book
14	49.11-49.13	Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book
15		Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book

H.A.R.T. 1356.185 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CH 49	Identification of Refrigerant Cylinders	Read Ch 49/Take Ch 49 Quiz Using Lab Book/Take Ch 49 Test Using Blackboard
17		Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
18	50.1-50.5	Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
19		Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
20	50.1-50.5	Use of Graduated Charging Cylinder	Read Ch 50/Take Ch 50 Quiz Using Lab Book
21		Use of Graduated Charging Cylinder	Read Ch 50/Take Ch 50 Quiz Using Lab Book
22	50.1-50.5	Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
23		Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
24	50.6-50.13	Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
25		Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
26	50.6-50.13	Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
27		Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
28	50.6-50.13	Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
29		Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
30	50.6-50.13	EPA Standards and Codes	Read Ch 50/Take Ch 50 Quiz Using Lab Book
31		EPA Standards and Codes	Read Ch 50/Take Ch 50 Quiz Using Lab Book/Take Ch 50 Test Using Blackboard
32		FINAL TEST	

H.A.R.T. 1356.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ADVANCED ELECTRICITY FOR HVAC

Advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment including detailed instruction in motors, motor controls, and application of solid state devices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
2	49.1-49.10	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
3		Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
4	49.1-49.10	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
5		Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
6	49.1-49.10	Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
7		Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
8	49.1-49.10	Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
9		Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
10	49.1-49.10	Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
11		Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
12	49.11-49.13	Practice Recharge on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
13		Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book
14	49.11-49.13	Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book
15		Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book

H.A.R.T. 1356.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CH 49	Identification of Refrigerant Cylinders	Read Ch 49/Take Ch 49 Quiz Using Lab Book/Take Ch 49 Test Using Blackboard
17		Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
18	49.11-49.13	Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
19		Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
20	50.1-50.5	Use of Graduated Charging Cylinder	Read Ch 50/Take Ch 50 Quiz Using Lab Book
21		Use of Graduated Charging Cylinder	Read Ch 50/Take Ch 50 Quiz Using Lab Book
22	50.1-50.5	Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
23		Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
24	50.1-50.5	Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
25		Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
26	50.6-50.13	Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
27		Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
28	50.6-50.13	Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
29		Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
30	50.6-50.13	EPA Standards and Codes	Read Ch 50/Take Ch 50 Quiz Using Lab Book
31		EPA Standards and Codes	Read Ch 50/Take Ch 50 Quiz Using Lab Book/Take Ch 50 Test Using Blackboard
32		FINAL TEST	

H.A.R.T. 1356.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ADVANCED ELECTRICITY FOR HVAC

Advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment including detailed instruction in motors, motor controls, and application of solid state devices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
2	49.1-49.10	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
3		Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
4	49.1-49.10	Practice recovery of small recovery tanks contents into larger tanks.	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
5		Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
6	49.1-49.10	Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
7		Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
8	49.1-49.10	Practice Recovery on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
9		Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
10	49.1-49.10	Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
11		Practice Evacuation on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
12	49.11-49.13	Practice Recharge on Assigned Units	Read Ch4 9/Take Ch 49 Quiz Using Lab Book
13		Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book
14	49.11-49.13	Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book
15		Practice Recharge on Assigned Units	Read Ch 49/Take Ch 49 Quiz Using Lab Book

H.A.R.T. 1356.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CH 49	Identification of Refrigerant Cylinders	Read Ch 49/Take Ch 49 Quiz Using Lab Book/Take Ch 49 Test Using Blackboard
17		Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
18	50.1-50.5	Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
19		Identification of Refrigerant Cylinders	Read Ch 50/Take Ch 50 Quiz Using Lab Book
20	50.1-50.5	Use of Graduated Charging Cylinder	Read Ch 50/Take Ch 50 Quiz Using Lab Book
21		Use of Graduated Charging Cylinder	Read Ch 50/Take Ch 50 Quiz Using Lab Book
22	50.6-50.13	Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
23		Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
24	50.6-50.13	Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
25		Recharging of Refrigerants on Assigned Units Using Volume and Weight Method	Read Ch 50/Take Ch 50 Quiz Using Lab Book
26	50.6-50.13	Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
27		Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
28	50.6-50.13	Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
29		Proper Disposal of and handling Refrigerants/Laws/Rules of Safe Handling of Refrigerants	Read Ch 50/Take Ch 50 Quiz Using Lab Book
30	50.6-50.13	EPA Standards and Codes	Read Ch 50/Take Ch 50 Quiz Using Lab Book
31		EPA Standards and Codes	Read Ch 50/Take Ch 50 Quiz Using Lab Book/Take Ch 50 Test Using Blackboard
32		FINAL TEST	

H.A.R.T. 2331.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ADVANCED ELECTRICITY FOR HVAC

Advanced elecrical instruction and skill building in installation of air conditioning equipment including detailed motor controls and application of solid state devices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
2	40.1-40.4	Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
3		Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
4	40.5-40.10	Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
5		Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
6	40.11-40.15	Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
7		Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
8	TEST CH 40	Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
9		Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
10	42.1-42.4	Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
11		Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
12	42.5-42.10	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
13		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
14	42.11-42.15	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
15		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book

H.A.R.T. 2331.185 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
17	42.16-42.20	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
18		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
19	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
20		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
21	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
22		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
23	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
24		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
25	42.21-42.25	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
26		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
27	42.21-42.25	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
28		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
29	42.21-42.25	Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
30		Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
31		Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book /Take Ch 42 Test Using Blackboard
32		FINAL TEST	

H.A.R.T. 2331.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ADVANCED ELECTRICITY FOR HVAC

Advanced elecrical instruction and skill building in installation of air conditioning equipment including detailed motor controls and application of solid state devices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
2	40.1-40.4	Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
3		Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
4	40.5-40.10	Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
5		Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
6	40.11-40.15	Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
7		Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
8	TEST CH 40	Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
9		Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
10	42.1-42.4	Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
11		Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
12	42.5-42.10	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
13		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
14	42.11-42.15	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
15		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book

H.A.R.T. 2331.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
17	42.16-42.20	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
18		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
19	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
20		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
21	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
22		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
23	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
24		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
25	42.16-42.20	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
26		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
27	42.21-42.25	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
28		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
29	42.21-42.25	Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
30		Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
31		Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book /Take Ch 42 Test Using Blackboard
32		FINAL TEST	

H.A.R.T. 2331.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

ADVANCED ELECTRICITY FOR HVAC

Advanced elecrical instruction and skill building in installation of air conditioning equipment including detailed motor controls and application of solid state devices.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
2	40.1-40.4	Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
3		Practice Troubleshooting electric circuits	Read Ch 40/Take Ch 40 Quiz Using Lab Book
4	40.5-40.10	Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
5		Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
6	40.11-40.15	Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
7		Practice Troubleshooting Evaporator Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
8	TEST CH 40	Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 40/Take Ch 40 Quiz Using Lab Book
9		Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
10	42.1-42.4	Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
11		Practice Troubleshooting Condenser Performance on Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
12	42.5-42.10	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
13		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
14	42.11-42.15	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
15		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book

H.A.R.T. 2331.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
17	42.16-42.20	Practice Troubleshooting and Installing Residential Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
18		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
19	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
20		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
21	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
22		Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
23	42.16-42.20	Practice Troubleshooting and Installing Commercial Equipment	Read Ch 42/Take Ch 42 Quiz Using Lab Book
24		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
25	42.21-42.25	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
26		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
27	42.21-42.25	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
28		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Ch 42/Take Ch 42 Quiz Using Lab Book
29	42.21-42.25	Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
30		Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book
31		Troubleshooting, and Service of Assigned Units	Read Ch 42/Take Ch 42 Quiz Using Lab Book /Take Ch 42 Test Using Blackboard
32		FINAL TEST	

H.A.R.T. 2334.130 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

Advanced Air Conditioning Controls/Direct Digital Controls

Students will learn the basics of energy management using direct digital controls including installation,programming, and precision of installation along with theory and operation. Direct digital control language, symbols, logic, and computer assisted graphics to control sequence and operation of air conditioning & refrigeration equipment will be demonstrated. This course will serve as a basic entry level course into energy management for a greener global environment. Includes the theory and and application of electrical control devices, electromechanical controls, and/or pneumatic controls.

As part of this course students are expected to practice each skill learned without prompting from the instructor especially concentrating o skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. Each day students will be require to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment Students must complete all work to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	TEXT	LAB
F1	LAB	Identification of Circuit Boards, Controls, Lan, Sublan
F2	CH 1	Blackboard Assignment
F3	LAB	Identification of Circuit Boards, Actuators, Controls
F4	BLACKBOARD ASSIGNMENT	Blackboard Assignment
F5	LAB	Practice Addressing, Wiring, and Installation of 7740
F6	CH 2	Blackboard Assignment
F7	LAB	Practice Addressing, Wiring, and Installation of 7740, and 7716
F8	CH 3	Blackboard Assignment
F9	FINAL TEST	

H.A.R.T. 2336.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

TROUBLESHOOTING

Advanced troubleshooting principles and use of test instruments to diagnose air conditioning and r components and system problems including conducting performance tests.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice troubleshooting electric circuits using voltage-drop method on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
2		Practice troubleshooting electric circuits using schematics and the "hop-skotch" method on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
3	15.1-15.4	Practice troubleshooting the thermostat in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
4		Practice troubleshooting both the low voltage and high voltage circuits in assigned units. Praactice troubleshooting amperage in both the low and high voltage circuits in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
5	15.1-15.4	Practice troubleshooting both the low voltage and high voltage circuits in assigned units. Praactice troubleshooting amperage in both the low and high voltage circuits in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
6		Practice troubleshooting switches and loads in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
7	15.5-15.9	Practice checking operating conditions of low, medium, and high temperature equipment on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
8		Practice checking operating conditions on air cooled equipment.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
9	TEST CH 15	Practice checking operating conditions on watercooled equipment.	Read Ch 15/Take Ch 15 Quiz Using Lab Book/Take Ch 15 Test Using Blackboard
10		Practice checking operating conditions on watercooled equipment.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
11	29.1-29.9	Practice checking refrigerant charge on assigned units	Read Ch 29/Take Ch 29 Quiz Using Lab Book
12		Practice checking evaporator efficiency on assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
13	29.10-29.15	Practice checking condeser efficiency on assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
14		Practice checking efficiency of compressors in assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
15	29.16-29.21	Practice performing Vacuum compressor test on assigned units. .	Read Ch 29/Take Ch 29 Quiz Using Lab Book

H.A.R.T. 2336.185 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CH 29	Practice Closed loop Compressor bench test with unit runnng .	Read Ch 29/Take Ch 29 Quiz Using Lab Book/Take Ch 29 Test Using Blackboard
17		Practice Closed loop Compressor test on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
18	41.1-41.3	Practice compressor running test on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
19		Practice checking evaporator pressures and operating conditions on assigned units. Checking pressures and temperatures under different load conditions.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
20	41.4-41.6	Practice checking system pressues and temperatures on assigned units. Establishing reference points on unknown equipment.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
21		Practice determining compressor electrical operating conditions, Equipment Efficiency Rating, and equipment start up on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
22	41.7-41.10	Practice determining compressor electrical operating conditions, Equipment Efficiency Rating, and equipment start up on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
23		Practice determining compressor full load current, run load and loked rotor amps on assigned units. Practice troubleshooting high voltage.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
24	41.11-41.15	Practice troubleshooting electrical troublshooting of circuit protectors, compressors, overloads,	Read Ch 41/Take Ch 41 Quiz Using Lab Book
25		Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
26	41.16-41.18	Practice High and Low side Gauge Readings, Temperature and Pressure readings.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
27		Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
28	41.16-41.18	Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book/Take Ch 41 Test Using Blackboard

H.A.R.T. 2336.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

TROUBLESHOOTING

Advanced troubleshooting principles and use of test instruments to diagnose air conditioning and r components and system problems including conducting performance tests.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice troubleshooting electric circuits using voltage-drop method on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
2		Practice troubleshooting electric circuits using schematics and the "hop-skotch" method on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
3	15.1-15.4	Practice troubleshooting the thermostat in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
4		Practice troubleshooting both the low voltage and high voltage circuits in assigned units. Praactice troubleshooting amperage in both the low and high voltage circuits in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
5	15.1-15.4	Practice troubleshooting both the low voltage and high voltage circuits in assigned units. Praactice troubleshooting amperage in both the low and high voltage circuits in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
6		Practice troubleshooting switches and loads in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
7	15.5-15.9	Practice checking operating conditions of low, medium, and high temperature equipment on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
8		Practice checking operating conditions on air cooled equipment.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
9	TEST CH 15	Practice checking operating conditions on watercooled equipment.	Read Ch 15/Take Ch 15 Quiz Using Lab Book/Take Ch 15 Test Using Blackboard
10		Practice checking operating conditions on watercooled equipment.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
11	29.1-29.9	Practice checking refrigerant charge on assigned units	Read Ch 29/Take Ch 29 Quiz Using Lab Book
12		Practice checking evaporator efficiency on assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
13	29.10-29.15	Practice checking condeser efficiency on assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
14		Practice checking efficiency of compressors in assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
15	29.16-29.21	Practice performing Vacuum compressor test on assigned units. .	Read Ch 29/Take Ch 29 Quiz Using Lab Book

H.A.R.T. 2336.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CH 29	Practice Closed loop Compressor bench test with unit runnng .	Read Ch 29/Take Ch 29 Quiz Using Lab Book/Take Ch 29 Test Using Blackboard
17		Practice Closed loop Compressor test on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
18	41.1-41.3	Practice compressor running test on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
19		Practice checking evaporator pressures and operating conditions on assigned units. Checking pressures and temperatures under different load conditions.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
20	41.4-41.6	Practice checking system pressues and temperatures on assigned units. Establishing reference points on unknown equipment.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
21		Practice determining compressor electrical operating conditions, Equipment Efficiency Rating, and equipment start up on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
22	41.7-41.10	Practice determining compressor electrical operating conditions, Equipment Efficiency Rating, and equipment start up on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
23		Practice determining compressor full load current, run load and loked rotor amps on assigned units. Practice troubleshooting high voltage.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
24	41.11-41.15	Practice troubleshooting electrical troublshooting of circuit protectors, compressors, overloads,	Read Ch 41/Take Ch 41 Quiz Using Lab Book
25		Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
26	41.16-41.18	Practice High and Low side Gauge Readings, Temperature and Pressure readings.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
27		Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
28	41.16-41.18	Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book/Take Ch 41 Test Using Blackboard

H.A.R.T. 2336.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

TROUBLESHOOTING

Advanced troubleshooting principles and use of test instruments to diagnose air conditioning and r components and system problems including conducting performance tests.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice troubleshooting electric circuits using voltage-drop method on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
2		Practice troubleshooting electric circuits using schematics and the "hop-skotch" method on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
3	15.1-15.4	Practice troubleshooting the thermostat in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
4		Practice troubleshooting both the low voltage and high voltage circuits in assigned units. Praactice troubleshooting amperage in both the low and high voltage circuits in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
5	15.1-15.4	Practice troubleshooting both the low voltage and high voltage circuits in assigned units. Praactice troubleshooting amperage in both the low and high voltage circuits in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
6		Practice troubleshooting switches and loads in assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
7	15.5-15.9	Practice checking operating conditions of low, medium, and high temperature equipment on assigned units.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
8		Practice checking operating conditions on air cooled equipment.	Read Ch 15/Take Ch 15 Quiz Using Lab Book
9	TEST CH 15	Practice checking operating conditions on watercooled equipment.	Read Ch 15/Take Ch 15 Quiz Using Lab Book/Take Ch 15 Test Using Blackboard
10		Practice checking operating conditions on watercooled equipment.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
11	29.1-29.9	Practice checking refrigerant charge on assigned units	Read Ch 29/Take Ch 29 Quiz Using Lab Book
12		Practice checking evaporator efficiency on assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
13	29.10-29.15	Practice checking condeser efficiency on assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
14		Practice checking efficiency of compressors in assigned units.	Read Ch 29/Take Ch 29 Quiz Using Lab Book
15	29.16-29.21	Practice performing Vacuum compressor test on assigned units. .	Read Ch 29/Take Ch 29 Quiz Using Lab Book

H.A.R.T. 2336.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CH 29	Practice Closed loop Compressor bench test with unit runnng .	Read Ch 29/Take Ch 29 Quiz Using Lab Book/Take Ch 29 Test Using Blackboard
17		Practice Closed loop Compressor test on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
18	41.1-41.3	Practice compressor running test on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
19		Practice checking evaporator pressures and operating conditions on assigned units. Checking pressures and temperatures under different load conditions.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
20	41.4-41.6	Practice checking system pressues and temperatures on assigned units. Establishing reference points on unknown equipment.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
21		Practice determining compressor electrical operating conditions, Equipment Efficiency Rating, and equipment start up on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
22	41.7-41.10	Practice determining compressor electrical operating conditions, Equipment Efficiency Rating, and equipment start up on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
23		Practice determining compressor full load current, run load and loked rotor amps on assigned units. Practice troubleshooting high voltage.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
24	41.11-41.15	Practice troubleshooting electrical troublshooting of circuit protectors, compressors, overloads,	Read Ch 41/Take Ch 41 Quiz Using Lab Book
25		Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
26	41.16-41.18	Practice High and Low side Gauge Readings, Temperature and Pressure readings.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
27		Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book
28	41.16-41.18	Practice mechanical troubleshooting with gauges and thermometers on assigned units.	Read Ch 41/Take Ch 41 Quiz Using Lab Book/Take Ch 41 Test Using Blackboard

H.A.R.T. 2338.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

AIR CONDITIONING AND REFRIGERATION INSTALLATION AND SERVICE

Air conditioning and refrigeration system installation, refrigerant piping, condensate disposal, and air cleanin equipment with emphasis on service, troubleshooting, performance testing, and repair techniques.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Installing square and rectangular duct.	Read Unit 38/Ch 38 Quiz Using Lab Book
2	38.1-38.5	Installing square and rectangular duct.	Read Unit 38/Ch 38 Quiz Using Lab Book
3		Installing round metal duct & insulation	Read Unit 38/Ch 38 Quiz Using Lab Book
4	38.6-38.8	Installing round metal duct & insulation	Read Unit 38/Ch 38 Quiz Using Lab Book
5		Installing ductboard systems	Read Unit 38/Ch 38 Quiz Using Lab Book
6	38.9-38.12	Installing ductboard systems	Read Unit 38/Ch 38 Quiz Using Lab Book
7		Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book
8	TEST CH 38	Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book/Take Ch 38 Test Using Blackboard
9		Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book
10	47.1-47.4	Electrical Installation on assigned units	Read Unit 38/Ch 38 Quiz Using Lab Book/Take Ch 38 Test Using Blackboard
11		Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
12	47.5-47.15	Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
13		Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
14	47.16	Installation of roof top package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
15		Installation of roof top package unit	Read Unit 47/Ch 47 Quiz Using Lab Book

H.A.R.T. 2338.185 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	47.16	Installation of air to water package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
17		Installation of air to water package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
18	TEST CH 47	Installation of Split Systems with Electric Furnace	Read Unit 47/Ch 47 Quiz Using Lab BookTake Ch 47 Test Using Blackboard
19		Installation of Split Systems with Electric Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
20	48.1-48.5	Installation of Split Systems with Electric Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
21		Installation of Split Systems with Gas Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
22	48.6-48.8	Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
23		Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
24	48.6-48.8	Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
25		Install and Service Wastewater Units	Read Unit 48/Ch 48 Quiz Using Lab Book
26	48.9-48.11	Install and Service Wastewater Units	Read Unit 48/Ch 48 Quiz Using Lab Book
27		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
28	48.12-48.14	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
29		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
30	48.12-48.14	Install low-temperature refrigeration system.	Read Unit 48/Ch 48 Quiz Using Lab Book/Take Ch 48 Test Using Blackboard
31		Install low-temperature refrigeration system.	
32		FINAL TEST	

H.A.R.T. 2338.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

AIR CONDITIONING AND REFRIGERATION INSTALLATION AND SERVICE

Air conditioning and refrigeration system installation, refrigerant piping, condensate disposal, and air cleanin equipment with emphasis on service, troubleshooting, performance testing, and repair techniques.

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DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Installing square and rectangular duct.	Read Unit 38/Ch 38 Quiz Using Lab Book
2	38.1-38.5	Installing square and rectangular duct.	Read Unit 38/Ch 38 Quiz Using Lab Book
3		Installing round metal duct & insulation	Read Unit 38/Ch 38 Quiz Using Lab Book
4	38.6-38.8	Installing round metal duct & insulation	Read Unit 38/Ch 38 Quiz Using Lab Book
5		Installing ductboard systems	Read Unit 38/Ch 38 Quiz Using Lab Book
6	38.9-38.12	Installing ductboard systems	Read Unit 38/Ch 38 Quiz Using Lab Book
7		Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book
8	TEST CH 38	Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book/Take Ch 38 Test Using Blackboard
9		Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book
10	47.1-47.4	Electrical Installation on assigned units	Read Unit 38/Ch 38 Quiz Using Lab Book/Take Ch 38 Test Using Blackboard
11		Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
12	47.5-47.15	Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
13		Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
14	47.16	Installation of roof top package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
15		Installation of roof top package unit	Read Unit 47/Ch 47 Quiz Using Lab Book

H.A.R.T. 2338.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Installation of air to water package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
17		Installation of air to water package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
18	TEST CH 47	Installation of Split Systems with Electric Furnace	Read Unit 47/Ch 47 Quiz Using Lab BookTake Ch 47 Test Using Blackboard
19		Installation of Split Systems with Electric Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
20	48.1-48.5	Installation of Split Systems with Electric Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
21		Installation of Split Systems with Gas Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
22	48.6-48.8	Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
23		Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
24	48.6-48.8	Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
25		Install and Service Wastewater Units	Read Unit 48/Ch 48 Quiz Using Lab Book
26	48.9-48.11	Install and Service Wastewater Units	Read Unit 48/Ch 48 Quiz Using Lab Book
27		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
28	48.12-48.14	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
29		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
30	48.12-48.14	Install low-temperature refrigeration system.	Read Unit 48/Ch 48 Quiz Using Lab Book/Take Ch 48 Test Using Blackboard
31		Install low-temperature refrigeration system.	
32		FINAL TEST	

H.A.R.T. 2338.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

AIR CONDITIONING AND REFRIGERATION INSTALLATION AND SERVICE

Air conditioning and refrigeration system installation, refrigerant piping, condensate disposal, and air cleanin equipment with emphasis on service, troubleshooting, performance testing, and repair techniques.

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DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Installing square and rectangular duct.	Read Unit 38/Ch 38 Quiz Using Lab Book
2	38.1-38.5	Installing square and rectangular duct.	Read Unit 38/Ch 38 Quiz Using Lab Book
3		Installing round metal duct & insulation	Read Unit 38/Ch 38 Quiz Using Lab Book
4	38.6-38.8	Installing round metal duct & insulation	Read Unit 38/Ch 38 Quiz Using Lab Book
5		Installing ductboard systems	Read Unit 38/Ch 38 Quiz Using Lab Book
6	38.9-38.12	Installing ductboard systems	Read Unit 38/Ch 38 Quiz Using Lab Book
7		Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book
8	TEST CH 38	Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book/Take Ch 38 Test Using Blackboard
9		Installing flexible duct systems	Read Unit 38/Ch 38 Quiz Using Lab Book
10	47.1-47.4	Electrical Installation on assigned units	Read Unit 38/Ch 38 Quiz Using Lab Book/Take Ch 38 Test Using Blackboard
11		Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
12	47.5-47.15	Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
13		Electrical Installation on assigned units	Read Unit 47/Ch 47 Quiz Using Lab Book
14	47.16	Installation of roof top package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
15		Installation of roof top package unit	Read Unit 47/Ch 47 Quiz Using Lab Book

H.A.R.T. 2338.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Installation of air to water package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
17		Installation of air to water package unit	Read Unit 47/Ch 47 Quiz Using Lab Book
18	TEST CH 47	Installation of Split Systems with Electric Furnace	Read Unit 47/Ch 47 Quiz Using Lab BookTake Ch 47 Test Using Blackboard
19		Installation of Split Systems with Electric Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
20	48.1-48.5	Installation of Split Systems with Electric Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
21		Installation of Split Systems with Gas Furnace	Read Unit 48/Ch 48 Quiz Using Lab Book
22	48.6-48.8	Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
23		Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
24	48.6-48.8	Install and Service Cooling Tower	Read Unit 48/Ch 48 Quiz Using Lab Book
25		Install and Service Wastewater Units	Read Unit 48/Ch 48 Quiz Using Lab Book
26	48.9-48.11	Install and Service Wastewater Units	Read Unit 48/Ch 48 Quiz Using Lab Book
27		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
28	48.12-48.14	Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
29		Add cooling system to existing heating system with emphasis on phasing of low voltage transformers.	Read Unit 48/Ch 48 Quiz Using Lab Book
30	48.12-48.14	Install low-temperature refrigeration system.	Read Unit 48/Ch 48 Quiz Using Lab Book/Take Ch 48 Test Using Blackboard
31		Install low-temperature refrigeration system.	
32		FINAL TEST	

H.A.R.T. 2341.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

COMMERCIAL REFRIGERATION

The student will demonstrate knowledge of system components; diagnose and troubleshoot systems; describe system applications; and demonstrate system installation procedures.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
2	21.1-21.6	Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
3		Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
4	21.7-21.10	Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
5		Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
6	21.11-21.18	Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
7		Check Performance of Chilled Water Systems. Evaluation of Low Temp Evaporators and Defrost	Read Unit 21/Take Ch 21 Quiz Using Lab Book
8	TEST CH 21	Check Performance of Chilled Water Systems. Evaluation of Low Temp Evaporators and Defrost	Read Unit 21/Take Ch 21 Quiz Using Lab Book
9		Adjust open compressor speed on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
10	22.1-22.10	Service, Maintenance & Repair of Waste/Water Systems, Condenser Subcooling & Water Tower Maintenance	Read Unit 22/Take Ch 22 Quiz Using Lab Book
11		Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
12	22.11-22.15	Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
13		Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
14	22.16-22.23	Adjust evaporator pressure regulators on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
15		Adjust evaporator pressure regulators on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book

H.A.R.T. 2341.185 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CHAPTER 22	Adjust Fan Cycling Head Pressure Controls on Assigned Units. Pulleys, and Belt Drives, Motor Protection	Read Unit 22/Take Ch 22 Quiz Using Lab Book
17		Service, Repair, Maintenance of Compressors	Read Unit 23/Take Ch 23 Quiz Using Lab Book
18	23.1-23.10	Practice Adjusting Hig & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
19		Practice Adjusting Hig & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
20	TEST CHAPTER 23	Practice Adjusting high & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
21		Practice Adjusting Oil Safety Control, Head Pressure Controls, Ambient Controls, & Setting Defrost Clocks	Read Unit 24/Take Ch 24 Quiz Using Lab Book
22	24.1-24.15	Practice Adjusting Oil Safety Control, Head Pressure Controls, Ambient Controls, & Setting Defrost Clocks	Read Unit 24/Take Ch 24 Quiz Using Lab Book
23		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
24	24.16-24.25	Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
25		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
26	24.16-24.25	Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
27		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
28	24.16-24.25	Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 24/Take Ch 24 Quiz Using Lab Book
29		Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 24/Take Ch 24 Quiz Using Lab Book
30	24.16-24.25	Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 22/Take Ch 22 Quiz Using Lab Book
31		Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 22/Take Ch 22 Quiz Using Lab Book
32		FINAL TEST	

H.A.R.T. 2341.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

COMMERCIAL REFRIGERATION

The student will demonstrate knowledge of system components; diagnose and troubleshoot systems; describe system applications; and demonstrate system installation procedures.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
2	21.1-21.6	Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
3		Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
4	21.7-21.10	Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
5		Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
6	21.11-21.18	Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
7		Check Performance of Chilled Water Systems. Evaluation of Low Temp Evaporators and Defrost	Read Unit 21/Take Ch 21 Quiz Using Lab Book
8	TEST CH 21	Check Performance of Chilled Water Systems. Evaluation of Low Temp Evaporators and Defrost	Read Unit 21/Take Ch 21 Quiz Using Lab Book
9		Adjust open compressor speed on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
10	22.1-22.10	Service, Maintenance & Repair of Waste/Water Systems, Condenser Subcooling & Water Tower Maintenance	Read Unit 22/Take Ch 22 Quiz Using Lab Book
11		Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
12	22.11-22.15	Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
13		Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
14	22.16-22.23	Adjust evaporator pressure regulators on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
15		Adjust evaporator pressure regulators on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book

H.A.R.T. 2341.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CHAPTER 22	Adjust Fan Cycling Head Pressure Controls on Assigned Units. Pulleys, and Belt Drives, Motor Protection	Read Unit 22/Take Ch 22 Quiz Using Lab Book
17		Service, Repair, Maintenance of Compressors	Read Unit 23/Take Ch 23 Quiz Using Lab Book
18	23.1-23.10	Practice Adjusting Hig & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
19		Practice Adjusting Hig & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
20	TEST CHAPTER 23	Practice Adjusting high & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
21		Practice Adjusting Oil Safety Control, Head Pressure Controls, Ambient Controls, & Setting Defrost Clocks	Read Unit 24/Take Ch 24 Quiz Using Lab Book
22	24.1-24.15	Practice Adjusting Oil Safety Control, Head Pressure Controls, Ambient Controls, & Setting Defrost Clocks	Read Unit 24/Take Ch 24 Quiz Using Lab Book
23		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
24	24.16-24.25	Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
25		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
26	24.16-24.25	Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
27		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
28	24.16-24.25	Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 24/Take Ch 24 Quiz Using Lab Book
29		Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 24/Take Ch 24 Quiz Using Lab Book
30	24.16-24.25	Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 22/Take Ch 22 Quiz Using Lab Book
31		Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 22/Take Ch 22 Quiz Using Lab Book
32		FINAL TEST	

H.A.R.T. 2341.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

COMMERCIAL REFRIGERATION

The student will demonstrate knowledge of system components; diagnose and troubleshoot systems; describe system applications; and demonstrate system installation procedures.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
2	21.1-21.6	Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
3		Check & Evaluate Evaporator Performance on Assigned Units	Read Unit 21/Take Ch 21 Quiz Using Lab Book
4	21.7-21.10	Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
5		Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
6	21.11-21.18	Service, Maintenance, & Repair of Evaporators, Evaluation of Superheat, Subcooling, and Charge	Read Unit 21/Take Ch 21 Quiz Using Lab Book
7		Check Performance of Chilled Water Systems. Evaluation of Low Temp Evaporators and Defrost	Read Unit 21/Take Ch 21 Quiz Using Lab Book
8	TEST CH 21	Check Performance of Chilled Water Systems. Evaluation of Low Temp Evaporators and Defrost	Read Unit 21/Take Ch 21 Quiz Using Lab Book
9		Adjust open compressor speed on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
10	22.1-22.10	Service, Maintenance & Repair of Waste/Water Systems, Condenser Subcooling & Water Tower Maintenance	Read Unit 22/Take Ch 22 Quiz Using Lab Book
11		Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
12	22.11-22.15	Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
13		Adjust superheat on assigned low-medium-high temperature systems.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
14	22.16-22.23	Adjust evaporator pressure regulators on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book
15		Adjust evaporator pressure regulators on assigned units.	Read Unit 22/Take Ch 22 Quiz Using Lab Book

H.A.R.T. 2341.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16	TEST CHAPTER 22	Adjust Fan Cycling Head Pressure Controls on Assigned Units. Pulleys, and Belt Drives, Motor Protection	Read Unit 22/Take Ch 22 Quiz Using Lab Book
17		Service, Repair, Maintenance of Compressors	Read Unit 23/Take Ch 23 Quiz Using Lab Book
18	23.1-23.10	Practice Adjusting Hig & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
19		Practice Adjusting Hig & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
20	TEST CHAPTER 23	Practice Adjusting high & Low Pressure Switches on Assigned Units.	Read Unit 23/Take Ch 23 Quiz Using Lab Book
21		Practice Adjusting Oil Safety Control, Head Pressure Controls, Ambient Controls, & Setting Defrost Clocks	Read Unit 24/Take Ch 24 Quiz Using Lab Book
22	24.1-24.15	Practice Adjusting Oil Safety Control, Head Pressure Controls, Ambient Controls, & Setting Defrost Clocks	Read Unit 24/Take Ch 24 Quiz Using Lab Book
23		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
24	24.16-24.25	Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
25		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
26	24.16-24.25	Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
27		Service, Maintenance, Installation of Expansion Devices	Read Unit 24/Take Ch 24 Quiz Using Lab Book
28	24.16-24.25	Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 24/Take Ch 24 Quiz Using Lab Book
29		Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 24/Take Ch 24 Quiz Using Lab Book
30	24.16-24.25	Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 22/Take Ch 22 Quiz Using Lab Book
31		Troubleshooting, Installation, Service & Maintenance of Refrigeration Equipment	Read Unit 22/Take Ch 22 Quiz Using Lab Book
32		FINAL TEST	

H.A.R.T. 2342.130 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

COMMERCIAL REFRIGERATION FOR DISTRIBUTED DIGITAL CONTROLS

Students will learn the basics of energy management using direct digital controls including installation,programming, and precision of installation along with theory and operation. Direct digital control language, symbols, logic, and computer assisted graphics to control sequence and operation of air conditioning & refrigeration equipment will be demonstrated. This course will serve as a basic entry level course into energy management for a greener global environment. Includes the theory and and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Theory and practical application in the maintenance of commercial refrigeration; medium and low temperature applications and ice machines.

As part of this course students are expected to practice each skill learned without prompting from the instructor especially concentrating o skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. Each day students will be require to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment Students must complete all work to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	TEXT	LAB
F1	25.1-25.14	BLACKBOARD ASSIGNMENT
F2	LAB	TROUBLESHOOTING LOW TEMPERATURE EQUIPMENT
F3	25.15--25.22	BLACKBOARD ASSIGNMENT
F4	LAB	INSTALL CONTROLS/TROUBLESHOOTING COMMERCIAL EQUIPMENT
F5	25.23-25.38	BLACKBOARD ASSIGNMENT
F6	LAB	INSTALL CONTROLS/TROUBLESHOOTING COMMERCIAL EQUIPMENT
F7	25.39-25.48	HANDS ON FINAL EXAMS
F8	LAB	INSTALL CONTROLS/TROUBLESHOOTING COMMERCIAL EQUIPMENT
F9	LAB	INSTALL CONTROLS/TROUBLESHOOTING COMMERCIAL EQUIPMENT
F9	HANDS-ON FINAL	FINAL EXAM

H.A.R.T. 2343.130 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

INDUSTRIAL AIR CONDITIONING

Students will learn the basics of energy management using direct digital controls including installation,programming, and precision of installation along with theory and operation. Direct digital control language, symbols, logic, and computer assisted graphics to control sequence and operation of air conditioning & refrigeration equipment will be demonstrated. This course will serve as a basic entry level course into energy management for a greener global environment. Includes the theory and and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Theory and practical application in the maintenance of commercial refrigeration; medium and low temperature applications and ice machines.

As part of this course students are expected to practice each skill learned without prompting from the instructor especially concentrating o skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. Each day students will be require to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment Students must complete all work to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	TEXT	LAB
F1	INTRODUCTION	
F2	LAB	WINDOW UNIT CONVERSION/CONTROLS
F3	CHAPTER 4	BLACKBOARD ASSIGNMENT
F4	LAB	PROGRAMMING AND GRAPHICS
F5	CHAPTER 5	BLACKBOARD ASSIGNMENT
F6	LAB	PROGRAMMING AND GRAPHICS
F7	BLACKBOARD ASSIGNMENT	BLACKBOARD ASSIGNMENT
F8	LAB AND BLACKBOARD ASSN.	HANDS ON FINAL EXAMS

H.A.R.T. 2345.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

AIR CONDITIONING AND REFRIGERATION SYSTEM DESIGN

Properties of air and results of cooling, heating, humidifying or dehumidifying; ACCA Manual J heat gai heat loss calculations including equipment selection, ACCA Manual D duct design and balancing the ai

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION		
2	35.1-35.8	Practice with u-tube manometer.	Read Unit 35/Ch 35 Quiz Using lab Book
3		Practice checking air flow with velometer.	Read Unit 35/Ch 35 Quiz Using lab Book
4	35.9-35.10	Practice traversing duct with pitot tube.	Read Unit 35/Ch 35 Quiz Using lab Book
5		Practice traversing duct with pitot tube.	Read Unit 35/Ch 35 Quiz Using lab Book
6	35.11-35.12	Practice installing flex duct.	Read Unit 35/Ch 35 Quiz Using lab Book
7		Practice installing duct board.	Read Unit 35/Ch 35 Quiz Using lab Book
8	35.13	Practice sizing duct using friction chart.	Read Unit 35/Ch 35 Quiz Using lab Book
9		Practice sizing duct using friction chart.	Read Unit 35/Ch 35 Quiz Using lab Book
10	35.14	Practice sizing duct using duct calculator.	Read Unit 35/Ch 35 Quiz Using lab Book
11		Practice sizing duct using duct calculator.	Read Unit 35/Ch 35 Quiz Using lab Book
12	35.15	Practice evaluating building envelope R-values.	Read Unit 35/Ch 35 Quiz Using lab Book
13		Practice evaluating building envelope R-values.	Read Unit 35/Ch 35 Quiz Using lab Book
14	35.16	Practice taking off room dimensions and features.	Read Unit 35/Ch 35 Quiz Using lab Book/Ch 35 Test Using Blackboard
15	37.1-37.5	Practice with u-tube manometer.	Read Unit 37/Ch 37 Quiz Using lab Book

16		Practice checking air flow with velometer.	Read Unit 37/Ch 37 Quiz Using lab Book
17	37.6-37.10	Practice assembling round duct.	Read Unit 37/Ch 37 Quiz Using lab Book
18		Practice traversing duct with pitot tube.	Read Unit 37/Ch 37 Quiz Using lab Book
19			
20		Practice installing flex duct.	Read Unit 37/Ch 37 Quiz Using lab Book
21	37.11-37.15	Practice installing duct board.	Read Unit 37/Ch 37 Quiz Using lab Book
22		Practice sizing duct using friction chart.	Read Unit 37/Ch 37 Quiz Using lab Book
23	37.16-37.21	Practice sizing duct using friction chart.	Read Unit 37/Ch 37 Quiz Using lab Book
24		Practice sizing duct using duct calculator.	Read Unit 37/Ch 37 Quiz Using lab Book
25	TEST CH 37	Practice sizing duct using duct calculator.	Read Unit 37/Ch 37 Quiz Using lab Book/Ch 37 Test Using Blackboard
26	FRICTION CHART	Practice sizing duct using friction chart.	Read Man J/Answer Man J Questions/Manual J Load Calculations
27	FRICTION CHART	Practice sizing duct using friction chart.	Read Man J/Answer Man J Questions/Manual J Load Calculations
28	DUCT CALCULATOR	Practice sizing duct using duct calculator.	Read Man J/Answer Man J Questions/Manual J Load Calculations
29	MANUAL J	Practice evaluating building envelope R-values.	Read Man J/Answer Man J Questions/Manual J Load Calculations
30		Practice evaluating building envelope R-values.	Read Man J/Answer Man J Questions/Manual J Load Calculations
31	MANUAL D	Use static regain method to design extended plenum.	Read Man D/Answer Man D Questions/Manual D Load Calculations
32		Static regain method to design light commercial sys.	Read Man D/Answer Man D Questions/Manual D Load Calculations

H.A.R.T. 2345.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

AIR CONDITIONING AND REFRIGERATION SYSTEM DESIGN

Properties of air and results of cooling, heating, humidifying or dehumidifying; ACCA Manual J heat gai heat loss calculations including equipment selection, ACCA Manual D duct design and balancing the ai

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice with u-tube manometer.	Read Unit 35/Ch 35 Quiz Using lab Book
2	35.1-35.8	Practice with u-tube manometer.	Read Unit 35/Ch 35 Quiz Using lab Book
3		Practice checking air flow with velometer.	Read Unit 35/Ch 35 Quiz Using lab Book
4	35.9-35.10	Practice traversing duct with pitot tube.	Read Unit 35/Ch 35 Quiz Using lab Book
5		Practice traversing duct with pitot tube.	Read Unit 35/Ch 35 Quiz Using lab Book
6	35.11-35.12	Practice installing flex duct.	Read Unit 35/Ch 35 Quiz Using lab Book
7		Practice installing duct board.	Read Unit 35/Ch 35 Quiz Using lab Book
8	35.13	Practice sizing duct using friction chart.	Read Unit 35/Ch 35 Quiz Using lab Book
9		Practice sizing duct using friction chart.	Read Unit 35/Ch 35 Quiz Using lab Book
10	35.14	Practice sizing duct using duct calculator.	Read Unit 35/Ch 35 Quiz Using lab Book
11		Practice sizing duct using duct calculator.	Read Unit 35/Ch 35 Quiz Using lab Book
12	35.15	Practice evaluating building envelope R-values.	Read Unit 35/Ch 35 Quiz Using lab Book
13		Practice evaluating building envelope R-values.	Read Unit 35/Ch 35 Quiz Using lab Book
14	35.16	Practice taking off room dimensions and features.	Read Unit 35/Ch 35 Quiz Using lab Book/Ch 35 Test Using Blackboard
15	37.1-37.5	Practice with u-tube manometer.	Read Unit 37/Ch 37 Quiz Using lab Book

16		Practice checking air flow with velometer.	Read Unit 37/Ch 37 Quiz Using lab Book
17	37.6-37.10	Practice assembling round duct.	Read Unit 37/Ch 37 Quiz Using lab Book
18		Practice traversing duct with pitot tube.	Read Unit 37/Ch 37 Quiz Using lab Book
19			
20		Practice installing flex duct.	Read Unit 37/Ch 37 Quiz Using lab Book
21	37.11-37.15	Practice installing duct board.	Read Unit 37/Ch 37 Quiz Using lab Book
22		Practice sizing duct using friction chart.	Read Unit 37/Ch 37 Quiz Using lab Book
23	37.16-37.21	Practice sizing duct using friction chart.	Read Unit 37/Ch 37 Quiz Using lab Book
24		Practice sizing duct using duct calculator.	Read Unit 37/Ch 37 Quiz Using lab Book
25	TEST CH 37	Practice sizing duct using duct calculator.	Read Unit 37/Ch 37 Quiz Using lab Book/Ch 37 Test Using Blackboard
26	FRICTION CHART	Practice sizing duct using friction chart.	Read Man J/Answer Man J Questions/Manual J Load Calculations
27	FRICTION CHART	Practice sizing duct using friction chart.	Read Man J/Answer Man J Questions/Manual J Load Calculations
28	DUCT CALCULATOR	Practice sizing duct using duct calculator.	Read Man J/Answer Man J Questions/Manual J Load Calculations
29	MANUAL J	Practice evaluating building envelope R-values.	Read Man J/Answer Man J Questions/Manual J Load Calculations
30		Practice evaluating building envelope R-values.	Read Man J/Answer Man J Questions/Manual J Load Calculations
31	MANUAL D	Use static regain method to design extended plenum.	Read Man D/Answer Man D Questions/Manual D Load Calculations
32		Static regain method to design light commercial sys.	Read Man D/Answer Man D Questions/Manual D Load Calculations

H.A.R.T. 2345.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

AIR CONDITIONING AND REFRIGERATION SYSTEM DESIGN

Properties of air and results of cooling, heating, humidifying or dehumidifying; ACCA Manual J heat gai heat loss calculations including equipment selection, ACCA Manual D duct design and balancing the ai

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	INTRODUCTION	Practice with u-tube manometer.	Read Unit 35/Ch 35 Quiz Using lab Book
2	35.1-35.8	Practice with u-tube manometer.	Read Unit 35/Ch 35 Quiz Using lab Book
3		Practice checking air flow with velometer.	Read Unit 35/Ch 35 Quiz Using lab Book
4	35.9-35.10	Practice traversing duct with pitot tube.	Read Unit 35/Ch 35 Quiz Using lab Book
5		Practice traversing duct with pitot tube.	Read Unit 35/Ch 35 Quiz Using lab Book
6	35.11-35.12	Practice installing flex duct.	Read Unit 35/Ch 35 Quiz Using lab Book
7		Practice installing duct board.	Read Unit 35/Ch 35 Quiz Using lab Book
8	35.13	Practice sizing duct using friction chart.	Read Unit 35/Ch 35 Quiz Using lab Book
9		Practice sizing duct using friction chart.	Read Unit 35/Ch 35 Quiz Using lab Book
10	35.14	Practice sizing duct using duct calculator.	Read Unit 35/Ch 35 Quiz Using lab Book
11		Practice sizing duct using duct calculator.	Read Unit 35/Ch 35 Quiz Using lab Book
12	35.15	Practice evaluating building envelope R-values.	Read Unit 35/Ch 35 Quiz Using lab Book
13		Practice evaluating building envelope R-values.	Read Unit 35/Ch 35 Quiz Using lab Book
14	35.16	Practice taking off room dimensions and features.	Read Unit 35/Ch 35 Quiz Using lab Book/Ch 35 Test Using Blackboard
15	37.1-37.5	Practice with u-tube manometer.	Read Unit 37/Ch 37 Quiz Using lab Book

16		Practice checking air flow with velometer.	Read Unit 37/Ch 37 Quiz Using lab Book
17	37.6-37.10	Practice assembling round duct.	Read Unit 37/Ch 37 Quiz Using lab Book
18		Practice traversing duct with pitot tube.	Read Unit 37/Ch 37 Quiz Using lab Book
19			
20		Practice installing flex duct.	Read Unit 37/Ch 37 Quiz Using lab Book
21	37.11-37.15	Practice installing duct board.	Read Unit 37/Ch 37 Quiz Using lab Book
22		Practice sizing duct using friction chart.	Read Unit 37/Ch 37 Quiz Using lab Book
23	37.16-37.21	Practice sizing duct using friction chart.	Read Unit 37/Ch 37 Quiz Using lab Book
24		Practice sizing duct using duct calculator.	Read Unit 37/Ch 37 Quiz Using lab Book
25	TEST CH 37	Practice sizing duct using duct calculator.	Read Unit 37/Ch 37 Quiz Using lab Book/Ch 37 Test Using Blackboard
26	FRICTION CHART	Practice sizing duct using friction chart.	Read Man J/Answer Man J Questions/Manual J Load Calculations
27	FRICTION CHART	Practice sizing duct using friction chart.	Read Man J/Answer Man J Questions/Manual J Load Calculations
28	DUCT CALCULATOR	Practice sizing duct using duct calculator.	Read Man J/Answer Man J Questions/Manual J Load Calculations
29	MANUAL J	Practice evaluating building envelope R-values.	Read Man J/Answer Man J Questions/Manual J Load Calculations
30		Practice evaluating building envelope R-values.	Read Man J/Answer Man J Questions/Manual J Load Calculations
31	MANUAL D	Use static regain method to design extended plenum.	Read Man D/Answer Man D Questions/Manual D Load Calculations
32		Static regain method to design light commercial sys.	Read Man D/Answer Man D Questions/Manual D Load Calculations

H.A.R.T. 2349.185 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

HEAT PUMPS

Air-source and geo-thermal heat pumps, procedures and principles used in servicing heat pumps, heat pum control circuits, defrost controls, auxiliary heat, and air flow as they relate to heat pumps.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	43.1-43.4	Study heat pump piping and refrigerant flow with heat pump trainer.	Read Unit 43/Answer Unit 43 Questions
2		Practice using schematics to determine component operation in heat pump circuits.	Read Unit 43/Answer Unit 43 Questions
3	43.5-43.12	Practice wiring heat pump circuit with ICM defrost control.	Read Unit 43/Answer Unit 43 Questions
4		Practice wiring heat pump circuit with Ranco E-15 defrost control.	Read Unit 43/Answer Unit 43 Questions
5	43.5-43.12	Practice wiring heat pump circuit with ICM defrost control.	Read Unit 43/Answer Unit 43 Questions
6		Practice wiring heat pump circuit with Ranco E-15 defrost control.	Read Unit 43/Answer Unit 43 Questions
7	43.5-43.12	Practice wiring heat pump circuit with G.E./Carrier mechanical defrost timer.	Read Unit 43/Answer Unit 43 Questions
8		Practice troubleshooting reversing valve mechanically and electrically on assigned units.	Read Unit 43/Answer Unit 43 Questions
9	43.13-43.20	Practice charging heat pumps in heating mode with manufacturer's charging charts on assigned units.	Read Unit 43/Answer Unit 43 Questions
10		Practice charging heat pumps in cooling mode with manufacturer's charging charts on assigned units.	Read Unit 43/Answer Unit 43 Questions
11	43.21-43.24	Practice checking, troubleshooting and repairing defrost circuit on heat pumps.	Read Unit 43/Answer Unit 43 Questions
12		Practice calculating the balance point on assigned heat pumps.	Read Unit 43/Answer Unit 43 Questions
13	43.25-43.28	Study piping on geo-thermal heat pump unit assigned.	Read Unit 43/Answer Unit 43 Questions
14		Study wiring using schematic of geo-thermal heat pump.	Read Unit 43/Answer Unit 43 Questions
15	43.29-43.35	Study wiring using schematic of geo-thermal heat pump.	Read Unit 43/Answer Unit 43 Questions

H.A.R.T. 2349.185 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Study heat pump piping and refrigerant flow with heat pump trainer.	Read Unit 43/Answer Unit 43 Questions
17	Test Unit 43	Practice using schematics to determine component operation in heat pump circuits.	Read Unit 44/Answer Unit 44 Questions
18		Practice wiring heat pump circuit with ICM defrost control.	Read Unit 44/Answer Unit 44 Questions
19		Practice wiring heat pump circuit with ICM defrost control.	Read Unit 44/Answer Unit 44 Questions
20		Practice wiring heat pump circuit with ICM defrost control.	Read Unit 44/Answer Unit 44 Questions
21		Practice wiring heat pump circuit with ICM defrost control.	Read Unit 44/Answer Unit 44 Questions
22	44.3-44.6	Practice wiring heat pump circuit with G.E./Carrier mechanical defrost timer.	Read Unit 44/Answer Unit 44 Questions
23		Practice charging heat pumps in cooling mode with manufacturer's charging charts on assigned units.	Read Unit 44/Answer Unit 44 Questions
24		Practice charging heat pumps in cooling mode with manufacturer's charging charts on assigned units.	Read Unit 44/Answer Unit 44 Questions
25	44.7-44.8	Practice charging heat pumps in cooling mode with manufacturer's charging charts on assigned units.	Read Unit 44/Answer Unit 44 Questions
26		Practice checking, troubleshooting and repairing defrost circuit on heat pumps.	Read Unit 44/Answer Unit 44 Questions
27	44.9-44.12	Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
28		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
29	44.9-44.12	Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
30		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
31		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
32		FINAL TEST	

H.A.R.T. 2349.186 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

HEAT PUMPS

Air-source and geo-thermal heat pumps, procedures and principles used in servicing heat pumps, heat pum control circuits, defrost controls, auxiliary heat, and air flow as they relate to heat pumps.

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4		Practice wiring heat pump circuit with Ranco E-15 defrost control.	Read Unit 43/Answer Unit 43 Questions
5	43.5-43.12	Practice wiring heat pump circuit with ICM defrost control.	Read Unit 43/Answer Unit 43 Questions
6		Practice wiring heat pump circuit with Ranco E-15 defrost control.	Read Unit 43/Answer Unit 43 Questions
7	43.5-43.12	Practice wiring heat pump circuit with G.E./Carrier mechanical defrost timer.	Read Unit 43/Answer Unit 43 Questions
8		Practice troubleshooting reversing valve mechanically and electrically on assigned units.	Read Unit 43/Answer Unit 43 Questions
9	43.13-43.20	Practice charging heat pumps in heating mode with manufacturer's charging charts on assigned units.	Read Unit 43/Answer Unit 43 Questions
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12		Practice calculating the balance point on assigned heat pumps.	Read Unit 43/Answer Unit 43 Questions
13	43.25-43.28	Study piping on geo-thermal heat pump unit assigned.	Read Unit 43/Answer Unit 43 Questions
14		Study wiring using schematic of geo-thermal heat pump.	Read Unit 43/Answer Unit 43 Questions
15	43.29-43.35	Study wiring using schematic of geo-thermal heat pump.	Read Unit 43/Answer Unit 43 Questions

H.A.R.T. 2349.186 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Study heat pump piping and refrigerant flow with heat pump trainer.	Read Unit 43/Answer Unit 43 Questions
17	Test Unit 43	Practice using schematics to determine component operation in heat pump circuits.	Read Unit 44/Answer Unit 44 Questions
18		Practice wiring heat pump circuit with ICM defrost control.	Read Unit 44/Answer Unit 44 Questions
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21		Practice wiring heat pump circuit with ICM defrost control.	Read Unit 44/Answer Unit 44 Questions
22	44.3-44.6	Practice wiring heat pump circuit with G.E./Carrier mechanical defrost timer.	Read Unit 44/Answer Unit 44 Questions
23			Read Unit 44/Answer Unit 44 Questions
24			Read Unit 44/Answer Unit 44 Questions
25	44.7-44.8	Practice charging heat pumps in cooling mode with manufacturer's charging charts on assigned units.	Read Unit 44/Answer Unit 44 Questions
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27	44.9-44.12	Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
28		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
29	44.9-44.12	Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
30		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
31		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
32		FINAL TEST	

H.A.R.T. 2349.485 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

HEAT PUMPS

Air-source and geo-thermal heat pumps, procedures and principles used in servicing heat pumps, heat pum control circuits, defrost controls, auxiliary heat, and air flow as they relate to heat pumps.

As a part of this course students will be required to plan their work in such a way as to conserve material. Students are expected to practice each skill learned with out prompting from the instructor especially concentrating on skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. From time to time students will be required to read articles from technical journals and write a synopsis. Each day students will be asked to make operational checks and record the data on the proper forms to be turned in to the instructor. Each day students will be require to fill out a work order/ lab sheet describing and justifying the work performed on each piece of equipment Students must complete all assignments given to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	Text	LAB	Outside Reading/Writing Assignments
1	43.1-43.4	Study heat pump piping and refrigerant flow with heat pump trainer.	Read Unit 43/Answer Unit 43 Questions
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12		Practice calculating the balance point on assigned heat pumps.	Read Unit 43/Answer Unit 43 Questions
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14		Study wiring using schematic of geo-thermal heat pump.	Read Unit 43/Answer Unit 43 Questions
15	43.29-43.35	Study wiring using schematic of geo-thermal heat pump.	Read Unit 43/Answer Unit 43 Questions

H.A.R.T. 2349.485 SUMMER 2023			
HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY			
16		Study heat pump piping and refrigerant flow with heat pump trainer.	Read Unit 43/Answer Unit 43 Questions
17	Test Unit 43	Practice using schematics to determine component operation in heat pump circuits.	Read Unit 44/Answer Unit 44 Questions
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30		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
31		Study wiring using schematic of geo-thermal heat pump.	Read Unit 44/Answer Unit 44 Questions
32		FINAL TEST	

H.A.R.T. 2350.130 SUMMER 2023

HEATING AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

HVAC Zoning for Residential Structures

Theroy and application of HVAC residential Zone control devices and electromechanical devices.
Define a zone control system. Perform the installation of a zone control system.
Define the major components of a zone control system.
Benefits of a zone control system.

As part of this course students are expected to practice each skill learned without prompting from the instructor especially concentrating o skills where weakness exists. Students must work both independently and with other students to design and install working systems. Students must learn to make all calculations necessary to successfully complete assignments. Students must learn to take and record readings with instruments and then analyze these readings to determine problems and to decide which adjustments and corrections to make to the systems. The successful student will learn all systems thoroughly, learn to use all tools and instruments effectively, and learn to complete work professionally. Each day students will be require to fill out a work order/lab sheet describing and justifying the work performed on each piece of equipment Students must complete all work to the satisfaction of the instructor. Students are expected to record all data honestly and accurately.

DAY	TEXT	LAB
F1	BLACKBOARD ASSIGNMENT	Blackboard Assignment
F2	LAB	Introduction to residential zoning
F3		Blackboard Assignment
F4	LAB	Zoning Benefits
F5		Blackboard Assignment
F6	LAB	Installation of zoning equipment
F7		Blackboard Assignment
F8	LAB	Installation of zoning equipment
F9	FINAL TEST	

H.A.R.T. 2380.130 SUMMER 2023

HEATING, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

Cooperative Education -Heating, Air Conditioning, and Refrigeration Technology Technician

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience.

As outlined in the learning plan, students will apply the theories, concepts, and skills involving specialized skills, materialls, tools, and procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and social systems associated with the occupation and the business/industry. Students will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

DAY	TEXT	LAB
1	FIRST CLASS DAY	FIRST CLASS DAY ASSIGNMENT
2	BLACKBOARD	BLACKBOARD ASSIGNMENT
3	LAB	TBA
4	BLACKBOARD	BLACKBOARD ASSIGNMENT
5	LAB	TBA
6	BLACKBOARD	BACKBOARD ASSIGNMENT
7	LAB	LAB
8		FINAL TEST

H.A.R.T. 2381.130 SUMMER 2023

HEATING, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

Cooperative Education -Heating, Air Conditioning, and Refrigeration Technology Technician

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience.

As outlined in the learning plan, students will apply the theories, concepts, and skills involving specialized skills, materialls, tools, and procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and social systems associated with the occupation and the business/industry. Students will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

DAY	TEXT	LAB
1	FIRST CLASS DAY	FIRST CLASS DAY ASSIGNMENT
2	BLACKBOARD	BLACKBOARD ASSIGNMENT
3	LAB	TBA
4	BLACKBOARD	BLACKBOARD ASSIGNMENT
5	LAB	TBA
6	BLACKBOARD	BLACKBOARD ASSIGNMENT
7	LAB	TBA
8		FINAL TEST

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	140

Faculty	Michael Hinz
Office	Classroom
Phone	903 785-7661
email	mhinz@parisjc.edu

Course	HIST 1301
Title	US History to 1877

Description

A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human

Textbooks

Hewitt & Lawson, Exploring American Histories: A Survey with Sources, Second Edition, Plus LaunchPad with LearningCurve included PJC Custom Package or any Second Edition Combined version of this text with LaunchPad digital access code.
ISBN 9781319220662 for PJC Custom Package

Student Learning Outcomes (SLO)

- Create an argument through the use of historical evidence.
- Analyze and interpret primary and secondary sources.
- Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of United States history.

Schedule

Week 1-Chapter 1, Chapter 2, Chapter 3
Week 2- Chapter 4, Chapter 5, Chapter 6, Chapter 7
Week 3- Chapter 8, Chapter 9, Chapter 10
Week 4- Chapter 11, Chapter 12
Week 5- Chapter 13 & Chapter 14

Evaluation methods	Four Course Exams (50 points apiece) = 200 points (50% of course grade) Eight Class Quizzes (10 points apiece) = 80 points (20% of course grade) Attendance/Participation = 120 points (30% of course grade) Grading A=EXCELLENT 360-400 Points B=GOOD 320-359 Points C=AVERAGE 280-319 Points D=POOR 240-279 Points F=FAILURE less than 240 Points

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	200

Faculty	Micha Benjamin Flowers
Office	FGC 104C
Phone	903-782-0728
email	mflowers@parisjc.edu

Course	HIST 1301
Title	American History 1

Description

A survey of the political, social, economic, military, cultural, and intellectual history of the United States from the pre-Columbian period through Reconstructin. Core Curriculum satisfied for U.S. History

Textbooks

• Hewitt & Lawson, Exploring American Histories: A Survey with Sources, Third Edition, Plus LaunchPad with LearningCurve included PJC Custom Package or any Second Edition Combined version of the text with LaunchPad digital access code.
• ISBN9781319236496 for PJC Custom Package

Student Learning Outcomes (SLO)

Create an argument through the use of historical evidence. *Analyze and interpret primary and secondary sources. *Analyze the effects of historical, social, political, economic, and global forces in this period of United States history.

Schedule

Week 1- Introduction, Chapters 1 through 3, Examination 1
Week 2- Chapter 4 through 6, Examination 2
Week 3- Chapter 7 through 10, Examination 2
Week 4- Chapter 11 and 12
Week 5- Chapter 13 and 14
Week 6- Final Exam

Evaluation methods	Chapter Lectures- 20% Chapter Quizzes- 20% Chapter Assignments- 30% Examinations- 30% TOTAL: 100%

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	440

Faculty	Michael Hinz
Office	Classroom
Phone	903 785-7661
email	mhinz@parisjc.edu

Course	HIST 1301
Title	US History to 1877

Description

A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human

Textbooks

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ISBN 9781319220662 for PJC Custom Package

Student Learning Outcomes (SLO)

- Create an argument through the use of historical evidence.
- Analyze and interpret primary and secondary sources.
- Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of United States history.

Schedule

Week 1-Chapter 1, Chapter 2, Chapter 3
Week 2- Chapter 4, Chapter 5, Chapter 6, Chapter 7
Week 3- Chapter 8, Chapter 9, Chapter 10
Week 4- Chapter 11, Chapter 12
Week 5- Chapter 13 & Chapter 14

Evaluation methods	Four Course Exams (50 points apiece) = 200 points (50% of course grade) Eight Class Quizzes (10 points apiece) = 80 points (20% of course grade) Attendance/Participation = 120 points (30% of course grade) Grading A=EXCELLENT 360-400 Points B=GOOD 320-359 Points C=AVERAGE 280-319 Points D=POOR 240-279 Points F=FAILURE less than 240 Points

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	540

Faculty	Michael Hinz
Office	Classroom
Phone	903 785-7661
email	mhinz@parisjc.edu

Course	HIST 1301
Title	US History to 1877

Description

A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human

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ISBN 9781319220662 for PJC Custom Package

Student Learning Outcomes (SLO)

- Create an argument through the use of historical evidence.
- Analyze and interpret primary and secondary sources.
- Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of United States history.

Schedule

Week 1-Chapter 1, Chapter 2, Chapter 3
Week 2- Chapter 4, Chapter 5, Chapter 6, Chapter 7
Week 3- Chapter 8, Chapter 9, Chapter 10
Week 4- Chapter 11, Chapter 12
Week 5- Chapter 13 & Chapter 14

Evaluation methods	Four Course Exams (50 points apiece) = 200 points (50% of course grade) Eight Class Quizzes (10 points apiece) = 80 points (20% of course grade) Attendance/Participation = 120 points (30% of course grade) Grading A=EXCELLENT 360-400 Points B=GOOD 320-359 Points C=AVERAGE 280-319 Points D=POOR 240-279 Points F=FAILURE less than 240 Points

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	200

Faculty	Kelly Watltman-Payne
Office	Greenville #204
Phone	903-457-8726
email	kpayne@parisjc.edu

Course	HIST 1302
Title	US HISTORY

Description

HIST 1302 United States History II (54.0102.51 25) 3.3.0
A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes that may

Textbooks

Required Textbook(s) and Materials

Exploring American Histories, Combined, 4th edition Digital Access to Achieve/learning curve
ISBN: 9781319381752

Student Learning Outcomes (SLO)

1. Create an argument through the use of historical evidence.
2. Analyze and interpret primary and secondary sources.
3. Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of United States history.

Schedule

Week 1 -Industrialization, workers/farmers, cities, immigration; Achieve, Summative Quiz , Map Quiz, Essay Response
Week 2 Progressivism, Empire, Depresssion Achieve, Summative Quiz , Map Quiz, Essay Response
Week 3 -WWII, Cold War, Achieve, Summative Quiz, Map Quiz, Essay response, Mid-term Exam
Week 4 -Social and Cultural, Vietnam Achieve, Summative Quiz, Map Quiz, Short response paragraph
Week 5 - Conservativism, Liberalism Achieve, Summative Quiz, Map Quiz, Essay response, Final Exam

Evaluation methods	This is a fully online course 1000 points possible. 14 Learning Curves, 14 Summative Assessments; 14 map quizzes; 5 essay response; 2 exams; 1 Intro Discussion Board; Syllabus Quiz 540-600 points = A 480-539 points = B 420-479 points = C 360-419 points = D Less than 360 = F

Paris Junior College Syllabus

Year	2023	Faculty	Jennifer Washington
Term	Summer Flex B	Office	1048 WTC
Section		Phone	903-782-0731
		email	jwashington@parisjc.edu

Course	HITT1301
Title	Healthcare Delivery Systems

Description	Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies. Prerequisite: Completion of support courses listed on the Medical Records Coding degree plan with a grade of "C" or better. SCH= 3.3.0
Textbooks	Health Information Management Student Membership Bundle with Adaptive Learning 1. ISBN: 9781584268079
Student Learning Outcomes (SLO)	Upon completion of the course the student will be able to: Compute routine institutional statistics; analyze and interpret health care data; identify medical office systems and administrative procedures.
Schedule	Week Beginning: 1.07/12 – Chapter 1- you must finish chapter 1 by 7/18 or be dropped from class 2.07/19 – Chapter 3 3.07/26 – Chapter 4 4.08/02– Chapter 5 5.08/09 – Chapter 6– Chapter 7 6.08/16 – Final Exam Due by 08/17/2023 8:00am – no exceptions
Evaluation methods	Chapter Practice - 30% Chapter Test - 60% Final Exam - 10%

Paris Junior College Syllabus

Year	2023	Faculty	Jennifer Washington
Term	Summer 2023	Office	WTC 1048
Section	205	Phone	903 782 0731
		email	jwashington@parisjc.edu

Course HITT 1305

Title Medical Terminology

Description

Study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties

Textbooks

Medical Terminology: Learning Through Practice
Paula Bostwick
McGraw-Hill
9781260470741

Student Learning Outcomes (SLO)

Recognize and know the meaning of common medical terms and the ability to use medical research/resource materials to apply medical terminology in appropriate context when completing allied health documentation, medical transcription reports, or medical billing information.

Schedule

All assignments below are due on the following Sunday by midnight

Week #:	Start Date:	Assignment:
0	6/05	Chapter 1
		Chapter 2
		Chapter 3
		O SmartBook
		O Test 1-3
		□
		□
0	6/12	Catch up week
		Chapter 1-3 Review
0	6/19	Chapter 5
		Chapter 6
		□ O SmartBook
		□ O Test 5/6
		□
0	6/26	Chapter 7
		Chapter 8
		Chapter 9
		O SmartBook
		O Test 7 8 9

Evaluation methods	Grade Breakdown: SmartBook: 40% Tests: 40% Final Exam: 20%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 1319 185 223L
Title	Basic Horology I

Description

Introduction to watchmaking profession and customer service concepts. Emphasis on tool preparation, component handling, metrology, and product identification.

Prerequisite: None. Fee charged.

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Identify various tools and their functions; commission workbench and tools for efficient workflow; manipulate small parts with hand tools; measure miniature components with calipers and micrometers; classify various timepieces into technological groups; and identify various styles of encasing components by style and function.

Schedule

Week 1
- Orientation/Intro to profession
- Safety/Workshop organization
- Tool identification/Commission bench and toolkit
- Metrology

Week 2
- Tool commisioning
- Equipment maintenance

Week 3
- Component Handling
- Commission hand tools

Week 4
- Technology of timekeeping
- Product identification
- Commission hand tools

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 1320 185 223L
Title	Basic Horology II

Description

Continuation of Basic Horology I with emphasis on efficient execution of service process; knowledge of parts nomenclature; identification of preexisting aesthetic and functional conditions; and, discussion of fault analysis principles as applied to timepieces.

Prerequistie: HRGY 1319

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Understand and apply service process theory; recognize aesthetic and functional faults of manual and quartz timepiece technologies; apply knowledge of power–flow to analyze faulty components of mechanical watch; and, critically evaluate the aesthetic condition of case, bracelet, dial, and hands.

Schedule

Week 1
Service process theory

Week 2
Nomenclature

Week 3
Asthetic control

Week 4
Fault analysis

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 1321 185 223L
Title	Basic Horology III

Description

Continuation of Basic Horology II. Emphasis on encasing component identification and manipulation techniques; regulating principles of mechanical timepieces; and, changing power cells in quartz watches.

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Identify service techniques for one, two, and three piece cases; demonstrate opening and closing techniques for snap, screw–down and screw–on case backs; differentiate between acrylic, mineral glass, and sapphire watch crystals; identify crowns by aesthetics and function; remove and install attachments using a variety of fixing methods; use timing machine to regulate mechanical watches; and, operate quartz tester to judge condition of movement and power cell.

Schedule

Week 1
Encasing

Week 2
Encasing

Week 3
Encasing

Week 4
Encasing

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 1322 185 223L
Title	Basic Horology IV

Description

Continuation of Basic Horology III. Emphasis on dismantling and reassembly of encasing components; basic refinishing techniques; fitting new movement (movement exchange); fitting new stem; waterproof testing; and, delivery of finished repairs.

Prerequisite: HRGY 1321

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Disassemble watch head; demonstrate operational understanding of encasing equipment by applying a variety of techniques for removing and replacing case backs, bezels, and crystals; demonstrate safe usage of polishing equipment by refinishing watch cases, bezels, case backs, and bracelets; fit a new movement to a watch; fit a new stem; compare and contrast water resistant requirements for various timepieces; and, critique various methods of presentation of finished repair to client.

Schedule

Week 1
- Encasing

Week 2
- Encasing

Week 3
- Encasing

Week 4
- Encasing

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Ashton Henderson
Office	AS 108
Phone	903-782-0249
email	ahenderson@parisjc.edu

Course	HRGY 1371.185 223T
Title	Introduction to Computer Aided Design

Description	Study of the programs operations, characteristics, modeling, and machining techniques of computer aided design. Computer aided manufacturing are explored in this course. Applications and visualization, rendering, animation, 2D design, 3D design and solid modeling as it relates to jewelry design. Credits:3= 1 lecture and 8 laboratory hours per week
Textbooks	Matrix Software for Jewelry Artisans
Student Learning Outcomes (SLO)	Demonstrate knowledge of the interface of the Matrix 9 and Rhino 7 screen. Know how to create, split, trim, duplicate, rotate, mirror, copy and join lines. Knowledge of Revo stratigies Auto Flat Milling (2ops) and Rotary ring (1ops).
Schedule	May 15th thru June 6th Creating beginning projects for jewelry articles.

Evaluation methods	Final Course Grades: DESIGN ASSIGNMENTS 90% FINAL TEST 10%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Ashton Henderson
Office	AS 108
Phone	903-782-0249
email	ahenderson@parisjc.edu

Course	HRGY 1372.185 223T
Title	TECHNICAL ILLUSTRATION for JEWELRY DESIGN

Description

Continuation of HRGY 1371, topics include pictorial drawing, shading and rendering of jewelry articles
Credits: 3= 1 lecture and 8 laboratory hours per week
TSI Requirement: xxx M, xxx R, xxx W.
Prerequisite(s): HRGY 1371

Textbooks

Matrix Software for Jewelry Artisans

Student Learning Outcomes (SLO)

Demonstrate knowledge of producing simple jewelry articles. Knowledge of Surfaces, Polysurfaces and Meshes. Knowledge of 3D print strategies

Schedule

June 7th thru June 28th
An intermediate introduction of Matrix
Beginning introduction of Rhino 7 & JewelBeetle
3D Printing

Evaluation methods	Final Course Grades: DESIGN ASSIGNMENTS 90% FINAL TEST 10%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Ashton Henderson
Office	AS 108
Phone	903-782-0249
email	ahenderson@parisjc.edu

Course	HRGY 1373.185 223T
Title	BASIC COMPUTER AIDED DRAFTING for JEWELRY DESIGN

Description

Continuation of HRGY 1372 with focus on more advanced modeling, identifying and solving of problems in 3 – D jewelry design applications.
Credits: 3= 1 lecture and 8 laboratory hours per week
TSI Requirement: xxx M, xxx R, xxx W.
Prerequisite(s): HRGY 1372

Textbooks

Matrix Software for Jewelry Artisans

Student Learning Outcomes (SLO)

Demonstrate skill of producing and changing jewelry articles into a more complex model.
Demonstrate knowledge of STL files and 3D printing.

Schedule

June 29th thru July 24th

Creating intermediate projects for jewelry articles.
3D Printing

Evaluation methods	Final Course Grades: DESIGN ASSIGNMENTS 90% FINAL TEST 10%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Ashton Henderson
Office	AS 108
Phone	903-782-0249
email	ahenderson@parisjc.edu

Course	HRGY 1374.185 223T
Title	SOLID MODELING DESIGN for JEWELRY

Description	Continuation of HRGY 1373 conversion of 3 – D models for computer aided milling processes. Credits: 3= 1 lecture and 8 laboratory hours per week TSI Requirement: xxx M, xxx R, xxx W. Prerequisite(s): HRGY 1373
Textbooks	Handouts on Blackboard
Student Learning Outcomes (SLO)	Demonstrate skill of modeling Advanced Surfaces and Pave'. Knowledge of Advanced 3D printing stratigies.
Schedule	July 25th thru August 16th Design intermediate and advanced projects for articles of jewelry. 3D Printing

Evaluation methods	Final Course Grades: DESIGN ASSIGNMENTS 90% FINAL TEST 10%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2301 185 223L
Title	Intermediate Horology I

Description

Introduction to the functional theory of both mechanical and quartz watches with emphasis on movement fault analysis using a systematic approach as required by each technology.

Prerequisite: HRGY 1322

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Analyze in detail the eight effects on isochronism; sketch power flow diagram; compare and contrast precision and accuracy as they apply to service process; examine multiple systems to determine faults; evaluate movement condition using industry standard testing and analyzing equipment on both mechanical and quartz watches; compare and contrast fault analysis of mechanical and quartz timepieces; and, distinguish faults according to their effects on isochronism.

Schedule

Week 1
- Mechanical Watches - applied theory

Week 2
- Mechanical Watches - applied theory

Week 3
- Quartz Watches - applied theory

Week 4
- Quartz Watches - applied theory

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2302 185 223L
Title	Intermediate Horology II

Description

Continuation of Intermediate Horology I with emphasis on disassembly and reassembly of mechanical and quartz movements; clean and careful handling of movement components; work–holding; tool selection and application; enhanced kinesthetic skills; tribology and the effect of friction on mechanical and quartz technologies; and, lubrication techniques.

Prerequisite: HRGY 2301

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Identify components responsible for each system function in mechanical and quartz timepieces; identify winding and setting components by name and function; identify parts using industry standard nomenclature for mechanical and quartz timepieces; compare and contrast discrete components by function for mechanical and quartz timepieces; judge lubrication requirements based on pressure, torque, and speed; and, select proper lubricant according to friction demands with functional consideration of effect of lubricant choice on amplitude in mechanical watches and consumption in quartz watches.

Schedule

Week 1
- Tribology – mechanical and quartz

Week 2
- Tribology – mechanical and quartz

Week 3
- Tribology – mechanical and quartz

Week 4
- Tribology – mechanical and quartz

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2303 185 223L
Title	Intermediate Horology III

Description

Continuation of Intermediate Horology II with emphasis on winding/setting mechanism; mainspring and barrel; and gear train.

Prerequisite: HRGY 2302

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Demonstrate understanding of various winding and setting mechanisms as implemented on a variety of mechanical and quartz movements; demonstrate safe removal and replacement of mainspring; evaluate condition of mainspring; examine train wheels for trueness and manipulate as necessary; evaluate safe functionality of gear train; distinguish effective cannon pinion friction – adjusting as necessary; and demonstrate ability to move jewels to effect gear train end–shake.

Schedule

Week 1
- Mechanical watches – winding/setting

Week 2
- Mechanical watches – accumulator

Week 3
- Mechanical watches – transmission

Week 4
- Mechanical watches – applied tribology

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2304 185 223L
Title	Intermediate Horology IV

Description

Continuation of Intermediate Horology III with emphasis on escapement functions and adjustment.

Prerequisite: HRGY 2303

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Construct and deliver a lesson on an instructor selected topic related to escapements; judge condition and demonstrate ability to replace shellac on impulse pin and pallet stone; and, analyze and adjust various escapement components for maximum chronometry.

Schedule

Week 1
Mechanical watches – distribution

Week 2
Mechanical watches – distribution

Week 3
Mechanical watches – distribution

Week 4
Mechanical watches – distribution

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2305 185 223L
Title	Intermediate Horology V

Description

Continuation of Intermediate Horology IV with emphasis on oscillator function, repair, and adjustment.

Prerequisite: HRGY 2304

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Examine condition of various balance wheel elements for fault analysis; demonstrate ability to use a variety of tools and techniques to remove and replace a balance staff; statically poise a balance wheel; and adjust regulating pins to effect improvements in the isochronal characteristics of regulating unit.

Schedule

Week 1
Mechanical watches – regulation

Week 2
Mechanical watches – regulation

Week 3
Mechanical watches – regulation

Week 4
Mechanical watches – regulation

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2306 185 223L
Title	Intermediate Horology VI

Description

Continuation of Intermediate Horology V with emphasis on balance spring manipulation to improve chronometry.

Prerequisite: HRGY 2305

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Evaluate condition of balance spring in watch to determine manipulations needed for correction; and demonstrate ability to true a balance spring in the flat and the round at the stud and collet.

Schedule

Week 1
Mechanical watches – regulation/hairspring manipulation

Week 2
Mechanical watches – regulation/hairspring manipulation

Week 3
Mechanical watches – regulation/hairspring manipulation

Week 4
Mechanical watches – regulation/hairspring manipulation

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2307 185 223L
Title	Intermediate Horology VII

Description

Continuation of Intermediate Horology VI with emphasis on complete service of manual wind, automatic wind, and quartz watches with a variety of complications.

Prerequisite: HRGY 2306

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Evaluate movement condition to determine service parameters via aesthetic and functional faults; operate equipment necessary for advanced fault analysis; distinguish lubrication requirements for specialized automatic device components; and dismantle, service, and reassemble watches with a variety of automatic and calendar mechanisms.

Schedule

Week 1
Complete service of manual wind, automatic wind, and quartz watches

Week 2
Complete service of manual wind, automatic wind, and quartz watches

Week 3
Complete service of manual wind, automatic wind, and quartz watches

Week 4
Complete service of manual wind, automatic wind, and quartz watches

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2308 185 223L
Title	Intermediate Horology VIII

Description

A continuation of Intermediate Horology VII with emphasis on precision timing, efficient workflow, and attention to detail throughout the service process from customer drop–off to customer pick–up.

Prerequisite: HRGY 2307

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Demonstrate comprehensive ability to fully service quartz and mechanical timepieces including encasing; evaluate encasing and movement components for functional condition and ascertain need for replacement; demonstrate understanding of eight effects on isochronism by performing precision timing manipulations on mechanical watches; demonstrate time management skills by working on multiple timepieces simultaneously; and, demonstrate attention to detail by producing repair work that is clean and with all pre–existing conditions noted or corrected.

Schedule

Week 1
Precision timing/workflow/full service on manual wind, automatic wind and quartz watches

Week 2
Precision timing/workflow/full service on manual wind, automatic wind and quartz watches

Week 3
Precision timing/workflow/full service on manual wind, automatic wind and quartz watches

Week 4
Precision timing/workflow/full service on manual wind, automatic wind and quartz watches

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2341 185 223L
Title	Advanced Horology Systems I

Description

Introduction to the functional theory and service principles of modern chronograph watches with emphasis on nomenclature and knowledge of the wide variety of functions available in the marketplace.

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Apply sound service fundamentals to the chronograph basic movement; identify systems for chronograph operation, including start; stop; and return to zero functions; and apply knowledge of tribology of horological mechanisms to lubricate the various components of the chronograph complication.

Schedule

Week 1
- Chronograph theory and practical

Week 2
- Chronograph theory and practical

Week 3
- Chronograph theory and practical

Week 4
- Chronograph theory and practical

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2342 185 223L
Title	Advanced Horology Systems II

Description

A continuation of Advanced Horology Systems I with emphasis on chronographs with additional complications such as automatic winding and calendar mechanisms.

Prerequisite: HRGY 2341

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Demonstrate comprehensive ability to fully service modern chronographs with automatic and/or calendar complications to current industry standards; distinguish between horizontal clutch and vertical clutch chronograph mechanisms; and distinguish between cam operated chronograph mechanisms and column wheel mechanisms.

Schedule

Week 1
- Chronograph theory and practical

Week 2
- Chronograph theory and practical

Week 3
- Chronograph theory and practical

Week 4
- Chronograph theory and practical

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, assessment instruments for practical evaluations. A grade of "C" (70%), or higher is required to complete a project and advance to the next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and applied theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of "A" will be recorded for work completed to a level of: 90 - 100% Grade of "B" will be recorded for work completed to a level of: 80 - 89% Grade of "C" will be recorded for work completed to a level of: 70 - 79% Grade of "F" will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professional industry experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quantity of work done. Students have until the end of the semester to complete all assigned projects. All project course work must be completed in assigned order and during allocated classroom hours according to the classroom meeting times and days schedule. Students may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Student will have until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Student Handbook. Students who are behind on their projects are expected to avail themselves of any provided supplemental working hours, should they be made available – at the discretion of the instructor,

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Stanley McMahan
Office	AS 132
Phone	903–782–0361
email	smcmahan@parisjc.edu

Course	HRGY 2343 185 223L
Title	Advanced Horology Systems III

Description

A continuation of Advanced Horological Systems II, emphasis on advanced electronic theory related to quartz watches and full service of chronograph, automatic, and quartz watches with the constraint of time.

Prerequisite: HRGY 2342

Textbooks

Theory of Horology - Reymondin

Student Learning Outcomes (SLO)

Demonstrate time management skills, practical skills, and knowledge necessary to fully service chronograph, a and quartz watches with time constraints modeled after modern working environment production goals; demon technical skills via practical component of final exam; and demonstrate theoretical knowledge of horological p written component of final exam.

Schedule

Week 1
Full service of manual wind, automatic wind, quartz, and chronograph with constraints of time

Week 2
Full service of manual wind, automatic wind, quartz, and chronograph with constraints of time

Week 3
Full service of manual wind, automatic wind, quartz, and chronograph with constraints of time

Week 4
Capstone Project - Full service of manual wind, automatic wind, quartz, and chronograph with constraints o mid–term exam

Evaluation methods	Assessment of learning may include, but not limited to: Written examinations, oral examinations, rubrics, asses instruments for practical evaluations. A grade of “C” (70%), or higher is required to complete a project and ad next project. a. Composite grade on all projects (practical bench work or demonstration of practical working knowledge and theory) = 60% b. Composite grade on all homework assignments = 15% c. Composite grade on all assessments (practical or theoretical) = 15% d. Work ethics = 10% Grade of “A” will be recorded for work completed to a level of: 90 - 100% Grade of “B” will be recorded for work completed to a level of: 80 - 89% Grade of “C” will be recorded for work completed to a level of: 70 - 79% Grade of “F” will be recorded for work completed to a level of: 69% and below Project Grading: Project grades are based on, first and foremost, the quality of workmanship assessed according to the professio experience, education, and knowledge of the instructor of watchmaking, and, when applicable, speed and quan done. Students have until the end of the semester to complete all assigned projects. All project course work must be c assigned order and during allocated classroom hours according to the classroom meeting times and days sched may receive an INCOMPLETE upon failure to finish every project assigned by the end of the semester. Studer until the end of the next long semester to clear any INCOMPLETE grades according to the policy in the Stude Students who are behind on their projects are expected to avail themselves of any provided supplemental work

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Paris Junior College Syllabus

Year	2022-2023	Faculty	Bobby Fields
Term	Summer	Office	WTC 1111
Section	190	Phone	903-782-0722
		email	bfields@parisjc.edu

Course	HYDR 1345
Title	Hydraulics/Pneumatics

Description	Discussion of the fundamentals of hydraulics and pneumatics, components of each system and the operations, Maintenance, and analysis of each system.
Textbooks	Textbook/lab manual will be provided via the NC3 online certification program.
Schedule	We will follow the guidelines established by NC3.
Evaluation methods	Two certification tets 50%, Labs 50%. A grade of D will not be given. An average of 70 or above will be considered passing while a grade of below 70 will be failing.

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	100

Faculty	Carey Gable
Office	ADM 133, by appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	IRWS 0302 - AD 128
Title	Integrated Reading and Writing: MRWR - 8 to 10:10 AM

Description

"Integration of critical reading and academic writing skills. Successful completion of this intervention fulfills TSI requirements for reading and/or writing. Students are placed into the course by test scores. The course may not be used to fulfill degree requirements," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week
TSI Requirement: 339 or below Essay 3 or below.

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717
Novel as required for English 1301.

Student Learning Outcomes (SLO)

Course Goals and Objectives:
1. Locate explicit textual information, draw complex inferences, and analyze and evaluate the information within and across multiple texts of varying lengths.
2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)
ALL ESSAY EDITS ARE DUE BEFORE SUBMISSION TO ENGL 1301 – Due Dates Vary

Week 1:
June 5 - 11
Syllabus and Introductions
How to Navigate the Course
Assignment: Essay Struggles Self Evaluation
Lesson 1 – Academic Writing and MLA Formatting
Lesson 1 – MLA Formatting and Prewriting (Outlining/Brainstorming)
Lesson 1 – Writing the Intro and Conclusion
Developing a Thesis
Assignments – Write an Intro, Write a Conclusion

Week 2:
June 12 - 18

Evaluation methods	Course Requirements and Evaluation: Grades will be determined by your writing, participation, online components, and reading assessments. Extra credit may be given at the instructor's discretion. Essay Struggles Self-Assessment5 points Introduction Assignment5 points Conclusion Assignment5 points Draft of Essay 1 (1301 Descriptive)10 points Draft of Essay 2 (1301 Narrative)10 points Draft of Essay 3 (1301 Variable)10 points Letter from Birm. Jail Discussion5 points Harrison Bergeron Discussion5 points

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	400

Faculty	Carey Gable
Office	ADM 133, by appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	IRWS 0302 - GC 123
Title	Integrated Reading and Writing: MRWR - 8 to 10:10 AM

Description

"Integration of critical reading and academic writing skills. Successful completion of this intervention fulfills TSI requirements for reading and/or writing. Students are placed into the course by test scores. The course may not be used to fulfill degree requirements," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week
TSI Requirement: 339 or below Essay 3 or below.

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717
Novel as required for English 1301.

Student Learning Outcomes (SLO)

Course Goals and Objectives:
1. Locate explicit textual information, draw complex inferences, and analyze and evaluate the information within and across multiple texts of varying lengths.
2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)
ALL ESSAY EDITS ARE DUE BEFORE SUBMISSION TO ENGL 1301 – Due Dates Vary

Week 1:
June 5 - 11
Syllabus and Introductions
How to Navigate the Course
Assignment: Essay Struggles Self Evaluation
Lesson 1 – Academic Writing and MLA Formatting
Lesson 1 – MLA Formatting and Prewriting (Outlining/Brainstorming)
Lesson 1 – Writing the Intro and Conclusion
Developing a Thesis
Assignments – Write an Intro, Write a Conclusion

Week 2:
June 12 - 18

Evaluation methods	Course Requirements and Evaluation: Grades will be determined by your writing, participation, online components, and reading assessments. Extra credit may be given at the instructor's discretion. Essay Struggles Self-Assessment5 points Introduction Assignment5 points Conclusion Assignment5 points Draft of Essay 1 (1301 Descriptive)10 points Draft of Essay 2 (1301 Narrative)10 points Draft of Essay 3 (1301 Variable)10 points Letter from Birm. Jail Discussion5 points Harrison Bergeron Discussion5 points

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	500

Faculty	Carey Gable
Office	ADM 133, by appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	IRWS 0302 - SSC 108
Title	Integrated Reading and Writing: MRWR - 8 to 10:10 AM

Description

"Integration of critical reading and academic writing skills. Successful completion of this intervention fulfills TSI requirements for reading and/or writing. Students are placed into the course by test scores. The course may not be used to fulfill degree requirements," (Catalog).
Credits: 3 Credit Hours, 3 Hours of class each week
TSI Requirement: 339 or below Essay 3 or below.

Textbooks

Kirszner, Laurie G. and Stephen R. Mandell. Patterns for College Writing: A Rhetorical Reader and Guide. 15th ed. Bedford/St. Martin's, 2021, packaged with Achieve (for labs) and Hacker A Pocket Manual with Writing about Literature. ISBN: 9781319447717
Novel as required for English 1301.

Student Learning Outcomes (SLO)

Course Goals and Objectives:
1. Locate explicit textual information, draw complex inferences, and analyze and evaluate the information within and across multiple texts of varying lengths.
2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.

Schedule

Course Schedule:
Tentative (Subject to change at instructor's discretion)
ALL ESSAY EDITS ARE DUE BEFORE SUBMISSION TO ENGL 1301 – Due Dates Vary

Week 1:
June 5 - 11
Syllabus and Introductions
How to Navigate the Course
Assignment: Essay Struggles Self Evaluation
Lesson 1 – Academic Writing and MLA Formatting
Lesson 1 – MLA Formatting and Prewriting (Outlining/Brainstorming)
Lesson 1 – Writing the Intro and Conclusion
Developing a Thesis
Assignments – Write an Intro, Write a Conclusion

Week 2:
June 12 - 18

Evaluation methods	Course Requirements and Evaluation: Grades will be determined by your writing, participation, online components, and reading assessments. Extra credit may be given at the instructor's discretion. Essay Struggles Self-Assessment5 points Introduction Assignment5 points Conclusion Assignment5 points Draft of Essay 1 (1301 Descriptive)10 points Draft of Essay 2 (1301 Narrative)10 points Draft of Essay 3 (1301 Variable)10 points Letter from Birm. Jail Discussion5 points Harrison Bergeron Discussion5 points

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	290

Faculty	Wanda Duncan
Office	AS 155
Phone	(903) 782-0378
email	wduncan@parisjc.edu

Course	ITSC 1309
Title	Integrated Software Applications I

Description

Introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software. End-of-Course Outcomes: Use word processing, spreadsheet, database, and/or presentation software; and integrate applications to produce documents.

Textbooks

Shelly Cashman Series: Microsoft Office 365 & Office 2019: Introductory
Cable/Freund/Monk/Sebok/Vermaat
Loose-leaf Version + MindTap Computing, 1 term (6 months) Printed Access Card
Cengage Learning
ISBN: 978-0-357-26003-6

Microsoft Office 365 software (includes Word, Excel, Access, and PowerPoint) must be installed on your home computer if you work on your assignments at home. If you work on your assignments on campus, the software is already installed on those computers.

Student Learning Outcomes (SLO)

Utilize industry standard application software to produce personal, business, and academic reports and presentations.

Schedule

Week 1: IceBreaker Discussion Board, Syllabus Quiz, Register for MindTap
Week 2: Word Module 1
Week 3: Word Module 2
Week 4: Word Capstone
Week 5: PowerPoint Module 1
Week 6: PowerPoint Module 2
Week 7: PowerPoint Capstone
Week 8: Excel Module 1
Week 9: Excel Module 2
Week 10: Excel Capstone
Week 11: Outlook Module 1 & 2

This schedule is a rough guide only and is subject to change as the semester progresses.

Evaluation methods	Grades are based on a point system for completion of assessments which include Projects, Exams, Capstones, BlackBoard Discussion Forum, and a BlackBoard Syllabus Quiz. All work will be graded for completeness, accuracy, and punctuality. All work must be submitted by the due date schedule. A grade of zero (0) will be recorded for any assessment which is not submitted. No late assignments accepted. No make-up or extra credit is awarded. Successful online learners are good at scheduling their time in an organized manner. Remember that your work can be done from anywhere on any computer that has Internet access and Microsoft Excel 2016. Letter grades will be assigned based on the following point scale: 2340 - 2600 = A 2080 - 2339 = B 1820 - 2079 = C 1560 - 1819 = D 0 - 1559 = F The assessments are broken-down as follows: Syllabus Quiz = 1 assessment BlackBoard Discussion Board Forum = 1 assessment Outlook Training = 2 assessments Projects = 12 assessments Exams = 8 assessments Capstones = 3 assessments Checking your Grade: To check your grades, click “My Grades” tab. BlackBoard may show only the total number of points possible for each assessment and your score. The total points possible for the course may include work which you have not been assigned yet. To turn any score into a percentage, divide the number of points you received by the number of points possible. Viewing Grades: Grades as usually posted in BlackBoard within one week following the due date.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	290

Faculty	Wanda Duncan
Office	AS 155
Phone	903.782.0378
email	wduncan@parisjc.edu

Course	ITSW 1304
Title	Introduction to Spreadsheets

Description	Instruction in the concepts, procedures, and application of electronic spreadsheets. End-of-Course Outcomes: Define spreadsheet terminology and concepts; create formulas and functions; use formatting features; and generate charts, graphs, and reports.
Textbooks	Shelly Cashman Series Microsoft Office 365 & Excel 2019: Comprehensive Loose-leaf Version + MindTap Computing, 1 term (6 months) Printed Access Card Fruend/Starks/Schemieder Cengage Learning ISBN: 978-0-357-26010-4
Student Learning Outcomes (SLO)	Utilize industry standard application software to produce personal, business, and academic reports and presentations. Demonstrate knowledge of computer industry terminology and jargon. Define spreadsheet terminology and concepts, create formulas and functions, use formatting features, and generate charts, graphs, and reports.
Schedule	Week 1: IceBreaker Discussion Board and Syllabus Quiz Week 2/3: Module 1 Week 4/5: Module 2 Week 6/7: Module 3 Week 8: Capstone Week 9: Module 4 Week 10: Module 5 Week 11: Module 6

Evaluation methods	Grades are based on a point system for completion of assessments which include Training, Projects, Exams, Capstone, BlackBoard Discussion Forum, and a BlackBoard Syllabus Quiz. All work will be graded for completeness, accuracy, and punctuality. All work must be submitted by the due date schedule. A grade of zero (0) will be recorded for any assessment which is not submitted. No late assignments accepted. No make-up or extra credit is awarded. Successful online learners are good at scheduling their time in an organized manner. Remember that your work can be done from anywhere on any computer that has Internet access and Microsoft Excel 365. Letter grades will be assigned based on the following point scale: 1710 - 1900 = A 1520 - 1709 = B 1330 - 1519 = C 1140 - 1329 = D 0 - 1139 = F The assessments are broken-down as follows: Syllabus Quiz = 1 assessment BlackBoard Discussion Board Forum = 1 assessment Training = 6 assessments Textbook Projects: 5 assessments Project 1 = 5 assessments Exams = 5 assessments Capstone = 1 assessment Checking your Grade: To check your grades, click “My Grades” tab. BlackBoard may show only the total number of points possible for each assessment and your score. The total points possible for the course may include work which you have not been assigned yet. To turn any score into a percentage, divide the number of points you received by the number of points possible. Viewing Grades: Grades as usually posted in BlackBoard within one week following the due date.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer I
Section	200

Faculty	Cedric Crawford
Office	AS 141
Phone	903-782-0359
email	ccrawford@parisjc.edu

Course	ITSY 1300
Title	Fundamentals of Information Security

Description

An introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed. 3 Credit Hours 2 Lecture Hours and 4 Lab Hours

Textbooks

Cengage Unlimited
Whitman/Mattord's Principles of Information Security, 6th Edition
ISBN-13: 978-1-337-28164-5
Michael E. Whitman; Herbert J. Mattord

Student Learning Outcomes (SLO)

Outline best practices for the information security goals of confidentiality.
Integrity and availability; explain ethical practices.
Define vocabulary/terminology related to information security.
Explain the importance of planning and administrative controls.

Schedule

Week 1- Module 1: Introduction to Information Security & Module 2: The Need for Security & Module 3: Legal, Ethical, and Professional Issues in Information Security
Week 2 - Module 4: Planning for Security, Module 5: Risk Management & Module 6: Security Technology: Access Controls, Firewalls, and VPNs
Week 3 - Module 7: Security Technology: Intrusion Detection and Prevention Systems, and Other Security Tools, Module 8: Cryptography & Module 9: Physical Security.
Week 4 - Module 10: Implementing Information Security & Module 11: Security and Personnel
Week 5 - Module 12: Information Security Maintenance & Final Exam Review
Week 6- Final Exam

Evaluation methods	To ensure academic integrity, this course requires students to take a proctored Midterm or Final Exam at a Paris Junior College testing facility. The following formula/criteria will be used to determine your Final Course Grade: 25% EXAMS 50% Labs and Assignments 25% Quizzes COURSE GRADE = (Average Exams * 25%) + (Average Assignments * 50%) + (Average Quizzes *25%) GRADE SCALE is based on calculated Course average: A = 90-100 B = 80-89 C = 70-79 D = 60-69 F = 0-59

Paris Junior College Syllabus

Year	2022 - 2023
Term	Summer II
Section	265

Faculty	Cedric Crawford
Office	AS 141
Phone	903-782-0359
email	ccrawford@parisjc.edu

Course	ITSY-2345
Title	Network Defense and Countermeasures

Description

This is a practical application and comprehensive course that includes the planning, design, and construction of defenses fora complex network that will sustain an attack, document events, and mitigate the effects of the attack.

Textbooks

Cengage Unlimited
Hands-On Ethical Hacking and Network Defense
by Rob S. Wilson
4th Edition | Copyright 2023

Student Learning Outcomes (SLO)

Assemble network defense tools; differentiate between authorized and unauthorized activity on a network; respond to a breach in security through the use of countermeasures designed to minimize the impact of the breach on the network; document network events; and present an analysis of network breach and plan for remediation.

Schedule

Week 1 – Ch.1 Ethical Hacking Overview, Ch. 2 TCP/IP Concepts Review & Ch. 3 Network and Computer Attacks
Week 2 – Ch. 4 Footprinting and Social Engineering, Ch. 5 Port Scanning & Ch. 6 Enumeration
Week 3 – Ch. 7 Programming for Security Professionals, Ch. 8 Desktop and Server OS Vulnerabilities & Ch.9 Embedded Operating Systems: The Hidden Threat
Week 4 – Ch. 10 Hacking Web Servers & Ch. 11 Hacking Wireless Networks
Week 5 – Ch. 12 Cryptography, Ch. 13 Network Protection Systems & Final Exam Review
Week 6 – Final Exam

Evaluation methods	To ensure academic integrity, this course requires students to take a proctored Midterm or Final Exam at a Paris Junior College testing facility. The following formula/criteria will be used to determine your Final Course Grade: 25% EXAMS 50% Labs and Assignments 25% Quizzes COURSE GRADE = (Average Exams * 25%) + (Average Assignments * 50%) + (Average Quizzes *25%) GRADE SCALE is based on calculated Course average: A = 90-100 B = 80-89 C = 70-79 D = 60-69 F = 0-59

Paris Junior College Syllabus

Year	2022
Term	Summer
Section	185

Faculty	Arby Magill
Office	AS 107A
Phone	903-782-0383
email	amagill@parisjc.edu

Course	HRGY 1313
Title	Fundimentals of Gemology I (Diamonds)

Description	This course is designed to familiarize the student in the study of diamonds associated with the gemological process. Emphasis is given to the development of diamond grading skills using industry nomenclature and protocol
Textbooks	Gemology for the Jeweler by O. Paddock and M. Heuser, The Dealer's Book of Gems and Diamonds by M. Sevdermish and A. Mashiah, Gemstone of the World by W. Schumann, The Gem Merchant by David Epstein
Student Learning Outcomes (SLO)	1. Demonstrate knowledge of diamond formation, history and folklore of famous diamond, mining/processing, and distribution. 2. Demonstrate skills in the use and proper care of laboratory instruments including the loupe, gemological binocular microscope, Leveridge gauge, and table gauge/measuring devises. 3. Demonstrate skills in diamond protocols using the 4 c's (carat weight/color/cut evaluation/clarity). 4. Demonstrate skills in observation skills for clarity enhanced diamonds and man-made lab created diamonds. 5. Demonstrate skills in use of market monitors to determine the current market evaluations for diamonds. 6. Demonstrate skills in 4 c's quality evaluation of fancy shape cut diamonds.
Schedule	Week 1 – Introduction to the gemological microscope, its use and care. Study of the physical/chemical/optical properties of diamond and the history and background associated with its recovery. Study of the occurrence and processing of kimberlite to separate diamond crystals. Study of the development/history of the diamond fashioning industry. Week 2 – Study of the specifics of the round brilliant cut ideal proportioned diamond. Study also of the clarity grade systems for diamond evaluation. Study of the master color comparison qualifications for round brilliants used for grading diamonds for color/tint. Study of the protocol for quality grading of a fancy shape cut diamond. Week 3 - Study of the use of diamond simulants, clarity enhanced, and man-made manufactured diamonds for the diamond industry as retail jewelry. Study of the methods for re-cutting/fashioning of damaged diamonds and the protocol for evaluating diamonds “set” in jewelry mountings.
Evaluation methods	Instructor use of lecture, demonstrations, visual aids, and reading assignments; students will demonstrate proficiency in use of industry standards of diamond 4C's evaluation. The student will competently use the gemological binocular microscope, leveridge gauge, table gauge, master color comparison diamonds and other gemological tools to successfully evaluate round brilliant and fancy shape cut diamonds. End of course written test used to confirm familiarity of the subjects taught during the course. A students practical performance, work ethic, and test scores are all integral to their final course grade.

Paris Junior College Syllabus

Year	2022
Term	Summer
Section	185

Faculty	Arby Magill
Office	AS 107A
Phone	903-782-0383
email	amagill@parisjc.edu

Course	HRGY 1314
Title	Fundamentals of Gemology II (Colored Stones)

Description	Development of skills in gemstone identification. Emphasis on colored stones including synthetics, enhancement and treatments, and the proper care of laboratory instruments.
Textbooks	A Students Guide to Spectroscopy by Colin H. Winter; Gemstones of the World by Walter Schumann; Dealer's Book of Gems by M. Sevdermish and A. Mashiah; Phenominal Gems by Fred and Charlotte Ward; The Gem Merchant by David Stanley Epstein
Student Learning Outcomes (SLO)	1. Demonstrate knowledge of gem formation, recovery, species and variety of gems, and lore. 2. Demonstrate skills in the use and proper care of laboratory instruments including loupe, microscope, polariscope, spectroscope, refractometer, dichroscope, scales, and measuring devises. 3. Demonstrate skills in gem identification of colored gemstones, synthetics, enhanced, and treated gemstones.
Schedule	Week 1 – Classroom orientation; Gemology vocabulary; basic classification of gemstones, durability of gemstones; crystallography, crystal systems, behavior of light with gemstones; Specific gravity testing methods; colored stone specific use of the gemological binocular microscope, polariscope, refractometer, and dichroscope; gemological lab protocol. Week 2 – Development of skills and application of lab protocol with the gem equipment. Introduction to the observation of internal characteristics of gemstones. Introduction of methods of gemstone enhancements, gemstone formation and crystalography Week 3 – Introduction to the synthetic gemstone production methods and the tests necessary to separate natural from synthetic gemstones. Practical application of laboratory protocol and classification of Corundum, Chrysoberyl, Beryl, Tourmaline, and Turquoise.
Evaluation methods	Instructor use of lecture, demonstrations, slide presentations, videos, and reading assignments the student will demonstrate profiency in use of the industry wide gemological protocol in gem and mineral classification with an emphasis on forensic observation skills. The student will competently use the gemological binocular microscope, polariscope, refractometer, and other gemological tools to successfully identify colored gemstones during the lab portion of the class. End of course written test used to confirm familiarity of the subjects taught during the course. A students practical performance, work ethic, and test scores are all integral to their final course grade.

Paris Junior College Syllabus

Year	2022
Term	Summer
Section	185

Faculty	Arby Magill
Office	AS 107A
Phone	903-782-0383
email	amagill@parisjc.edu

Course	HRGY 1350
Title	Intermediate Gemology

Description	Continued development of skills in gemstone identification. Emphasis on colored stones including synthetics, gemstone enhancements/treatments and the proper care of laboratory instruments.
Textbooks	A Students Guide to Spectroscopy by Colin H. Winter; Gemstones of the World by Walter Schumann; Dealer's Book of Gems by M. Sevdermish and A. Mashiah; Phenominal Gems by Fred and Charlotte Ward; The Gem Merchant by David Stanley Epstein
Student Learning Outcomes (SLO)	1. Demonstrate knowledge of gem formation, recovery, species and variety of gems, lore and superstition. 2. Demonstrate skills in the use and proper care of laboratory instruments including loupe, microscope, polariscope, spectroscope, refractometer, calcite dichroscope, scales, and measuring devises. 3. Demonstrate skills in gem identification of colored gemstones, synthetics, enhanced, and treated gemstones.
Schedule	Week 1 – detailed overview of the industry recognized enhancement procedures that are associated with gemstones. Comprehensive study of the following mineralogical classification for Peridot, Garnets, Lapis Lazuli, and Jades formed as nephrite and jadeite. Week 2 – Comprehensive study of the following mineralogical classes of Spinel, Feldspars, Spodumene, and Quartz/Crystalline- Quartz/Chalcedonies. Week 3 – Comprehensive study of the following mineralogical classes of Diopside, Opal, Zoisite/Tanzanite, and Iolite. Week 4 – Comprehensive study of the following mineralogical classes of Zircon, Andalusite, and Apatite.
Evaluation methods	Instructor use of lecture, demonstrations, visual aids, and reading assignments; students will demonstrate profiency in use of gemological protocol in gemstone classification. The student will competently use the gemological binocular microscope, polariscope, refractometer, and other gemological tools to successfully identify colored gemstones during the lab portion of the class. End of course written test used to confirm familiarity of the subjects taught during the course. A students practical performance, work ethic, and test scores are all integral to their final course grade.

Paris Junior College Syllabus

Year	2021-2022	Faculty	Stanley McMahan
Term	Summer	Office	AS 132
Section	185	Phone	903–782–0361
		email	smcmahan@parisjc.edu

Course	HRGY 2301 185 213L
Title	Intermediate Horology I

Description

Introduction to the theory, function and repair of watch escapements. Emphasis on roller jewel, pallet stones, g pallet arbors and adjustments of the detached lever escapement in watches.

Prerequisite: HRGY 1322

Textbooks

The Watch Repairer's Manual – Henry B. Fried
Bench Practices for Watch and Clockmakers – Henry B. Fried
Bestfit Encyclopedia of Watch Materials #1 and #2 – B. Jadow/Vigor

Student Learning Outcomes (SLO)

Demonstrate repair and replacement of roller jewels, guard fingers, pallet jewels, pallet arbors; and perform es adjustment on basic mechanical watches.

Schedule

Weeks 1 – 2
Roller jewels

Weeks 2 – 3
Pallet jewels and guard fingers, pallet arbors

Weeks 3 – 4
Escapements

Evaluation methods

Roller jewel selection, removal, installation and alignment. Pallet jewel selection, removal, installation and alig finger selection, removal, installation and adjustment. Guard fingers will be removed and installed. Timekeepi finished watches will be considered the ultimate test of a satisfactory installation. Neatness of the work area an of the project will affect the grade, as will scratches, damage, broken and lost parts. Having performed sequent escapement components, the student will perform matched escapement set–ups using a large scale model of the lever escapement. After satisfactory sequential adjustment of the escapement model, the student will perform e repairs/adjustments on three (3) watches: One 11 1/2 ligne; one 10 ligne; one 6 3/4 ligne. Timekeeping of the f watches will be considered the ultimate test of a satisfactory repair.

a. Composite grade on all projects = 80%
b. Work ethics = 10%
c. Composite grade on written final exam = 10%

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Paris Junior College Syllabus

Year	2023	Faculty	Jan Elmore
Term	Summer I	Office	
Section	100	Phone	
		email	jelmore@parisjc.edu

Course	MATH 0300
Title	Elementary Algebra

Description	The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. This course is not for college-level credit.
Textbooks	This course has MathXL integrated directly into Blackboard which includes an e-text. A hard copy of the textbook is optional and will be an additional expense. Developmental Mathematics, 4th edition, ISBN 978-0-13-453981-2,Lial, Pearson Education.
Student Learning Outcomes (SLO)	This course is designed to assist students in the following objectives: To develop conceptual understanding mathematics with a focus on underlying structures. Development of ideas and problem solving.

Schedule	Week 1- Chapter 1: Sections 1.1-1.10 Week 2-Chapter 2: Sections 2.1-2.8 Chapter 1 Exam - Tuesday, June 13 Week 3- Chapter 3: Sections 3.1-3.5 Chapter 2 Exam on Tuesday, June 20 Week 4-Chapter 4: Sections 4.1-4.6 Chapter 3 Exam on Tuesday, June 27 Week 5-Chapter 4 Exam on Wednesday, July 5 Semester Exam Review Thursday, July 06 Week 6- Final Exam on Tuesday, July 11
Evaluation methods	Homework: 25% Exams: 50% Final Exam: 25%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer I
Section	140

Faculty	Chastity Woodson
Office	MS 111G
Phone	903-782-0234
email	cwoodson@parisjc.edu

Course	MATH 0401
Title	Foundation Algebra Reasoning

Description

Topics in mathematics including study of relations and funtions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. Recommended STEM-majors who are not college ready in mathematics based on placement test scores. This course is not for college-level and may not be used to satisfy degree requirements.

Textbooks

This course has MATHXL integrated directly into Blackboard which includes an e-text. A hard copy of the textbook is optional and will be an additional expense. Intermediate Algebra for College Students,8th edition, ISBN 9780136553434, Blitzer, Pearson Education.

Student Learning Outcomes (SLO)

1. The student is expected to interpret and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.
2. The student is expected to demonstrate proficiency with polynomials and rational expressions in evaluating, simplifying, and factoring.

Schedule

Week 1-Syllabus, Discuss Chapters 1.2, 1.3, 1.4, 1.6
Week 2-Exam 1, Discuss Chapters 5.1, 5.2, 5.3
Week 3-Discuss Chapters 5.4, 5.5, 5.6, Exam 2, Discuss Chapters 2.1, 2.2
Week 4- Discuss Chapters 2.3, 2.4, 2.5, Exam 3
Week 5- Discuss Chapters 6.4, 6.5, 6.6, 8.1, Review for Final
Week 6-Discuss Chapter 8.2, Review for Final, Take Comprehensive Final Exam

Evaluation methods	Grading: Your grade in this course will be calculated as follows: Daily Work 15% Exams 45% Final Exam 20% Homework 20%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer I
Section	540

Faculty	Chastity Woodson
Office	MS 111G
Phone	903-782-0234
email	cwoodson@parisjc.edu

Course	MATH 0401
Title	Foundation Algebra Reasoning

Description

Topics in mathematics including study of relations and funtions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. Recommended STEM-majors who are not college ready in mathematics based on placement test scores. This course is not for college-level and may not be used to satisfy degree requirements.

Textbooks

This course has MATHXL integrated directly into Blackboard which includes an e-text. A hard copy of the textbook is optional and will be an additional expense. Intermediate Algebra for College Students,8th edition, ISBN 9780136553434, Blitzer, Pearson Education.

Student Learning Outcomes (SLO)

1. The student is expected to interpret and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.
2. The student is expected to demonstrate proficiency with polynomials and rational expressions in evaluating, simplifying, and factoring.

Schedule

Week 1-Syllabus, Discuss Chapters 1.2, 1.3, 1.4, 1.6
Week 2-Exam 1, Discuss Chapters 5.1, 5.2, 5.3
Week 3-Discuss Chapters 5.4, 5.5, 5.6, Exam 2, Discuss Chapters 2.1, 2.2
Week 4- Discuss Chapters 2.3, 2.4, 2.5, Exam 3
Week 5- Discuss Chapters 6.4, 6.5, 6.6, 8.1, Review for Final
Week 6-Discuss Chapter 8.2, Review for Final, Take Comprehensive Final Exam

Evaluation methods	Grading: Your grade in this course will be calculated as follows: Daily Work 15% Exams 45% Final Exam 20% Homework 20%

Paris Junior College Syllabus

Year	2023
Term	Summer I 2023
Section	140/440/540

Faculty	Robert Talley
Office	SSC 110
Phone	903-885-1232
email	rtalley@parisjc.edu

Course	MATH 1314
Title	College Algebra

Description	In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Credits: 3 Lecture Hours per Week TSI Requirement: Mathematics if you have not met the requirements regarding STAAR testing
Textbooks	Blitzer Algebra and Trigonometry, 7th Edition ISBN: 0-13-692217-1 (Book is included in Homework)
Student Learning Outcomes (SLO)	Upon successful completion of this course, students will: 1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses. 2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and

Schedule	Week 1- Chapter 1 Chapter 2 Week 2- Chapter 2 Chapter 3 Chapter 1 Test on Wednesday, June 14 Week 3- Chapter 3 Chapter 4 Chapter 2 Test on Tuesday, June 20 Week 4- Chapter 4 Chapter 8 Chapter 9 Chapter 3 Test on Tuesday, June 27 Week 5- Semester Review
Evaluation methods	Homework: 50% Tests: 50%

Paris Junior College Syllabus

Year	2023	Faculty	John Fornof
Term	Summer I	Office	MS 111L
Section	200	Phone	903-782-0331
		email	jfornof@parisjc.edu

Course	Math 1314
Title	College Algebra

Description

Topics covered in this online course normally include, but are not limited to, equations, inequalities, mathematical models, functions, graphs, polynomial functions, rational functions, exponential functions, and logarithmic functions, system of equations and determinants. Prerequisite for this course is MATH 0401 or a satisfactory score on the placement test

Textbooks

Text: eText loaded in Blackboard: Algebra & Trigonometry, Blitzer, 6th Edition,
You will need a scientific calculator or a graphing calculator for this course.

Student Learning Outcomes (SLO)

1. The student is expected to demonstrate proficiency in solving equations of the quadratic form.
2. The student is expected to analyze and interpret polynomials, rational, and exponential functions.
3. The student is expected to compare and evaluate exponential and logarithmic equations using the inverse relationship between the two.

Schedule	MathLab Review, 1.2 Linear Equations and Rational Equations 1.4 Complex Numbers 1.5 Quadratic Equations 1.6 Other Types of Equations 1.7 Linear Inequalities and Absolute Value Inequalities Test 1 2.1 Basics of Functions and Their Graphs 2.2 More on Functions and Their Graphs 2.3 Linear Functions and Slope 2.4 More on Slope 2.6 Combinations and Composite Functions 2.7 Inverse Functions 2.8 Distance, Midpoint, Circles Test 2 3.1 Quadratic Functions 3.2 Polynomial Functions and Their Graphs 3.3 Dividing Polynomials 3.5 Rational Functions and Inequalities Test 3 4.1 Exponential Functions 4.2 Logarithmic Functions 4.3 Properties of Logarithms 4.4 Exponential and Logarithmic Functions 8.1 Systems in Two Variables 8.2 Systems in Three Variables 9.5 Determinants Review Final Final Exam
Evaluation methods	There will be three tests. Each test will contribute 18% to the final grade making a total of 54%. The final exam will be worth another 18%, leaving 28% for home work. Grades will be determined by overall percentage at the end of the course. 90 – 100 A 80 – 89 B 70 – 79 C 60 – 69 D < 60 F

Paris Junior College Syllabus

Year	2023
Term	Summer I 2023
Section	140/440/540

Faculty	Robert Talley
Office	SSC 110
Phone	903-885-1232
email	rtalley@parisjc.edu

Course	MATH 1314
Title	College Algebra

Description	In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Credits: 3 Lecture Hours per Week TSI Requirement: Mathematics if you have not met the requirements regarding STAAR testing
Textbooks	Blitzer Algebra and Trigonometry, 7th Edition ISBN: 0-13-692217-1 (Book is included in Homework)
Student Learning Outcomes (SLO)	Upon successful completion of this course, students will: 1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses. 2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and

Schedule	Week 1- Chapter 1 Chapter 2 Week 2- Chapter 2 Chapter 3 Chapter 1 Test on Wednesday, June 14 Week 3- Chapter 3 Chapter 4 Chapter 2 Test on Tuesday, June 20 Week 4- Chapter 4 Chapter 8 Chapter 9 Chapter 3 Test on Tuesday, June 27 Week 5- Semester Review
Evaluation methods	Homework: 50% Tests: 50%

Paris Junior College Syllabus

Year	2023
Term	Summer I 2023
Section	140/440/540

Faculty	Robert Talley
Office	SSC 110
Phone	903-885-1232
email	rtalley@parisjc.edu

Course	MATH 1314
Title	College Algebra

Description	In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Credits: 3 Lecture Hours per Week TSI Requirement: Mathematics if you have not met the requirements regarding STAAR testing
Textbooks	Blitzer Algebra and Trigonometry, 7th Edition ISBN: 0-13-692217-1 (Book is included in Homework)
Student Learning Outcomes (SLO)	Upon successful completion of this course, students will: 1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses. 2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and

Schedule	Week 1- Chapter 1 Chapter 2 Week 2- Chapter 2 Chapter 3 Chapter 1 Test on Wednesday, June 14 Week 3- Chapter 3 Chapter 4 Chapter 2 Test on Tuesday, June 20 Week 4- Chapter 4 Chapter 8 Chapter 9 Chapter 3 Test on Tuesday, June 27 Week 5- Semester Review
Evaluation methods	Homework: 50% Tests: 50%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer I
Section	200

Faculty	Jeff Norris
Office	GC - 210
Phone	(903)457-8713
email	jnorris@parisjc.edu

Course	MATH 1324
Title	Math For Business and Social Sciences I

Description

A study of mathematical skills that apply to important areas in management, life and social sciences with emphasis on concepts and problem solving rather than theory. Applications allow students to view math in a setting relevant to their intended careers and includes the study of linear equations, functions, matrices, inequalities, linear programming, quadratic functions, exponential and logarithmic functions, mathematics of finance, and probability.

Textbooks

College Mathematics for Business, Economics, Life Sciences and Social Sciences, Barnett/Ziegler?Byleen/Stocker, 14th ed., included with MATHXL.

Student Learning Outcomes (SLO)

Apply algebraic and higher-order thinking to modeling and solving real-world situations..
Analyeevaluate mathematical information verbally, numerically, graphically and symbolically.
Apply formulas of finance to real-world scenarios such as retirement plans, mortgages, and annuities

Schedule

Week 1-Introduction & Chapter 1 sections 1.2, 1.4, 4.1 - 4.5 Linear Equations, Inequalities, Lines, Graphs, Systems of Linear Equations, Matrix Operations, Test 1
Week2-5.1 - 5.3 Systems of Linear Inequalities, Linear Programming, Test 2
Week 3-2.1 - 2.6 Functions, Graphs of Functions, Quadratic and other Polynomial Functions, Rational Functions, Exponential Functions, Logarithmic Functions, Test 3
Week 4- 3.1 - 3.4 Simple and Compound Interest, Annuities and Sinking Funds, Amortization, Test 4
Week 5-Final Review, Final Exam

Evaluation methods

Homework	25%
4 Major Tests	60%
Comprehensive Final Exam	15%

Final course grades are assigned based on overall course average as follows:

Course Average	Course Grade
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	140

Faculty	John Fornof
Office	MS 111L
Phone	(903) 782-0331
email	jfornof@parisjc.edu

Course	Math 2413
Title	ANAL GEO/CALCULUS I

Description

This is a lecture course and the first in a sequence of three calculus courses. Calculus is a collection of mathematical ideas used to describe and analyze phenomena that are in a state of flux or change, for example, moving objects and population growth. Topics covered in this course include: functions, limits, continuity, derivatives and applications, integration, inverse functions.

Textbooks

Thomas' Calculus: Early Transcendentals, 14th edition; ISBN:13:9780137399185. A graphing calculator is also required for the course.

Student Learning Outcomes (SLO)

To apply arithmetic, algebraic and higher-order thinking to modeling and solving real-world situations. To represent and evaluate mathematical information verbally, numerically, graphically, and symbolically. To use technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the result.

Schedule

Chapter 2 Limits, Techniques for Computing Limits, Infinite Limits, Limits at Infinity, and Continuity
Exam 1

Chapter 3 Definition of Derivative, Rules of Differentiation, Product and Quotient Rules, Derivatives of Trig Functions, The Chain Rule, Implicit Differentiation, Derivatives of Log and Exponential Functions, Derivatives of Inverse Trig Functions, Related Rates
Exam 2

Chapter 4 Maxima and Minima, Mean Value Theorem, What Derivatives Tell Us About Graphs, Optimization Problems, L'Hopital's Rule, Antiderivatives
Exam 3

Chapter 5 Sigma Notation and Limits of Finite Sums, Definite Integrals, Area Under Curves, Fundamental Theorem of Calculus, Substitution Rule
Final Exam

Evaluation methods	There will be three exams. Each exam will contribute 20% to the final grade making a total of 60%. The final exam will be worth another 20%, leaving 20% for class work. Grades will be determined by overall percentage at the end of the course. 90 – 100 A 80 – 89 B 70 – 79 C 60 – 69 D < 60 F

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	440

Faculty	John Fornof
Office	MS 111L
Phone	(903) 782-0331
email	jfornof@parisjc.edu

Course	Math 2413
Title	ANAL GEO/CALCULUS I

Description

This is a lecture course and the first in a sequence of three calculus courses. Calculus is a collection of mathematical ideas used to describe and analyze phenomena that are in a state of flux or change, for example, moving objects and population growth. Topics covered in this course include: functions, limits, continuity, derivatives and applications, integration, inverse functions.

Textbooks

Thomas' Calculus: Early Transcendentals, 14th edition; ISBN:13:9780137399185. A graphing calculator is also required for the course.

Student Learning Outcomes (SLO)

To apply arithmetic, algebraic and higher-order thinking to modeling and solving real-world situations. To represent and evaluate mathematical information verbally, numerically, graphically, and symbolically. To use technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the result.

Schedule

Chapter 2 Limits, Techniques for Computing Limits, Infinite Limits, Limits at Infinity, and Continuity
Exam 1

Chapter 3 Definition of Derivative, Rules of Differentiation, Product and Quotient Rules, Derivatives of Trig Functions, The Chain Rule, Implicit Differentiation, Derivatives of Log and Exponential Functions, Derivatives of Inverse Trig Functions, Related Rates
Exam 2

Chapter 4 Maxima and Minima, Mean Value Theorem, What Derivatives Tell Us About Graphs, Optimization Problems, L'Hopital's Rule, Antiderivatives
Exam 3

Chapter 5 Sigma Notation and Limits of Finite Sums, Definite Integrals, Area Under Curves, Fundamental Theorem of Calculus, Substitution Rule
Final Exam

Evaluation methods	There will be three exams. Each exam will contribute 20% to the final grade making a total of 60%. The final exam will be worth another 20%, leaving 20% for class work. Grades will be determined by overall percentage at the end of the course. 90 – 100 A 80 – 89 B 70 – 79 C 60 – 69 D < 60 F

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	540

Faculty	John Fornof
Office	MS 111L
Phone	(903) 782-0331
email	jfornof@parisjc.edu

Course	Math 2413
Title	ANAL GEO/CALCULUS I

Description

This is a lecture course and the first in a sequence of three calculus courses. Calculus is a collection of mathematical ideas used to describe and analyze phenomena that are in a state of flux or change, for example, moving objects and population growth. Topics covered in this course include: functions, limits, continuity, derivatives and applications, integration, inverse functions.

Textbooks

Thomas' Calculus: Early Transcendentals, 14th edition; ISBN:13:9780137399185. A graphing calculator is also required for the course.

Student Learning Outcomes (SLO)

To apply arithmetic, algebraic and higher-order thinking to modeling and solving real-world situations. To represent and evaluate mathematical information verbally, numerically, graphically, and symbolically. To use technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the result.

Schedule

Chapter 2 Limits, Techniques for Computing Limits, Infinite Limits, Limits at Infinity, and Continuity
Exam 1

Chapter 3 Definition of Derivative, Rules of Differentiation, Product and Quotient Rules, Derivatives of Trig Functions, The Chain Rule, Implicit Differentiation, Derivatives of Log and Exponential Functions, Derivatives of Inverse Trig Functions, Related Rates
Exam 2

Chapter 4 Maxima and Minima, Mean Value Theorem, What Derivatives Tell Us About Graphs, Optimization Problems, L'Hopital's Rule, Antiderivatives
Exam 3

Chapter 5 Sigma Notation and Limits of Finite Sums, Definite Integrals, Area Under Curves, Fundamental Theorem of Calculus, Substitution Rule
Final Exam

Evaluation methods	There will be three exams. Each exam will contribute 20% to the final grade making a total of 60%. The final exam will be worth another 20%, leaving 20% for class work. Grades will be determined by overall percentage at the end of the course. 90 – 100 A 80 – 89 B 70 – 79 C 60 – 69 D < 60 F

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	140

Faculty	LaRue
Office	NS 120
Phone	903-782-0334
email	llarue@parisjc.edu

Course	Math 2415
Title	Calculus III

Description

A continuation of the integrated study of analytic geometry and calculus with an emphasis on an understanding of fundamental concepts. Topics include: paremetric equations and polar coordinates, vectors, applications of vectors, motion, partial derivatives and applications, mutliple integrals and applications.

Textbooks

Required Text: Briggs, Cochran, and Gillett, MyMathLab for Calculus, Early Transcendental Functions, 3rd Ed., Pearson Pub. Co., ISBN-13: 978-0134763644. PLEASE BUY YOUR ACCESS CODE AT PJC BOOKSTORE to be sure you get the correct materials. It contains an access code for My Math Lab and parts of the textbook embedded in the problem sets.

Student Learning Outcomes (SLO)

The goals for this course include the following:
1. To apply arithmetic, algebraic and higher-order thinking to modeling and solving real-world situations.
2. To represent and evaluate mathematical information verbally, numerically, graphically,and

Schedule

Week 1 -- Polar Coordinates and Parametric Equations, Intro to vectors
Week 2 -- More on vectors, vector-valued functions; Test I
Week 3 -- Functions of several variables, partial derivatives, applications; Test II
Week 4 -- Multiple integrals, applications; Test III
Week 5 -- More on multiple integrals; Final Exam

Evaluation methods	Students will take three Major Tests and one Final Exam. Homework will be turned in for each chapter and the average of the homework will count equivalent to a Major Test. Tests (3 at 20% each) 60% Homework 20% Final Exam 20% Total 100%

Paris Junior College Syllabus

Year	2023	Faculty	LaRue
Term	Summer I	Office	NS 120
Section	440	Phone	903-782-0334
		email	llarue@parisjc.edu

Course	Math 2415
Title	Calculus III

Description

A continuation of the integrated study of analytic geometry and calculus with an emphasis on an understanding of fundamental concepts. Topics include: paremetric equations and polar coordinates, vectors, applications of vectors, motion, partial derivatives and applications, mutliple integrals and applications.

Textbooks

Required Text: Briggs, Cochran, and Gillett, MyMathLab for Calculus, Early Transcendental Functions, 3rd Ed., Pearson Pub. Co., ISBN-13: 978-0134763644. PLEASE BUY YOUR ACCESS CODE AT PJC BOOKSTORE to be sure you get the correct materials. It contains an access code for My Math Lab and parts of the textbook embedded in the problem sets.

Student Learning Outcomes (SLO)

The goals for this course include the following:
1. To apply arithmetic, algebraic and higher-order thinking to modeling and solving real-world situations.
2. To represent and evaluate mathematical information verbally, numerically, graphically,and

Schedule

Week 1 -- Polar Coordinates and Parametric Equations, Intro to vectors
Week 2 -- More on vectors, vector-valued functions; Test I
Week 3 -- Functions of several variables, partial derivatives, applications; Test II
Week 4 -- Multiple integrals, applications; Test III
Week 5 -- More on multiple integrals; Final Exam

Evaluation methods	Students will take three Major Tests and one Final Exam. Homework will be turned in for each chapter and the average of the homework will count equivalent to a Major Test. Tests (3 at 20% each) 60% Homework 20% Final Exam 20% Total 100%

Paris Junior College Syllabus

Year	2023	Faculty	LaRue
Term	Summer I	Office	NS 120
Section	540	Phone	903-782-0334
		email	llarue@parisjc.edu

Course	Math 2415
Title	Calculus III

Description

A continuation of the integrated study of analytic geometry and calculus with an emphasis on an understanding of fundamental concepts. Topics include: paremetric equations and polar coordinates, vectors, applications of vectors, motion, partial derivatives and applications, mutliple integrals and applications.

Textbooks

Required Text: Briggs, Cochran, and Gillett, MyMathLab for Calculus, Early Transcendental Functions, 3rd Ed., Pearson Pub. Co., ISBN-13: 978-0134763644. PLEASE BUY YOUR ACCESS CODE AT PJC BOOKSTORE to be sure you get the correct materials. It contains an access code for My Math Lab and parts of the textbook embedded in the problem sets.

Student Learning Outcomes (SLO)

The goals for this course include the following:
1. To apply arithmetic, algebraic and higher-order thinking to modeling and solving real-world situations.
2. To represent and evaluate mathematical information verbally, numerically, graphically,and

Schedule

Week 1 -- Polar Coordinates and Parametric Equations, Intro to vectors
Week 2 -- More on vectors, vector-valued functions; Test I
Week 3 -- Functions of several variables, partial derivatives, applications; Test II
Week 4 -- Multiple integrals, applications; Test III
Week 5 -- More on multiple integrals; Final Exam

Evaluation methods	Students will take three Major Tests and one Final Exam. Homework will be turned in for each chapter and the average of the homework will count equivalent to a Major Test. Tests (3 at 20% each) 60% Homework 20% Final Exam 20% Total 100%

Paris Junior College Syllabus

Year	2023	Faculty	JENNIFER WASHINGTON
Term	Summer Extended	Office	WTC 1048
Section	205	Phone	903 782 0731
		email	jwashington@parisjc.edu

Course	MDCA 1309
Title	Anatomy And Physiology for Medical Assistants

Description

Emphasis on structure and function of human cells, tissues, organs, and systems with overview of common pathophysiology. The student will identify and correlate cells, tissues, organs, and systems of the human body; differentiate normal from abnormal structure and function; and differentiate all body systems, their organs, and relevant pathophysiology.

Textbooks

Herlihy The Human Body In Health and Illness 7th Edition and workbook
ISBNs: 9780323711265 and 9780323711258

Student Learning Outcomes (SLO)

1. Apply knowledge of anatomy and physiology, and clinical disease processes
2. Identify and correlate cells, tissues, organs, and systems of the human body
3. Differentiate normal from abnormal structure and function
4. Identify all body systems, their organs, and relevant physiology

Schedule

All assignments below are due on the following MONDAY by 8:00am
Week 1 06/05 – Chapter 1,2,3,5 Reading and Choice Board
Week 2 06/12 – Chapter 6,7 Reading and Choice Board
Week 3 06/19 – Chapter 8, 9 Reading and Choice Board
Week 4 06/26 – Chapter 10,11,12 Reading and Choice Board
Week 5 07/03 – Chapter 13,14 Reading and Choice Board
Week 6 07/10 – Chapter 15,16,17,18 Reading and Choice Board
Week 7 07/17 – Chapter 20,21 Reading and Choice Board
Week 8 07/24 – Chapter 22,23 Reading and Choice Board
Week 9 07/31 – Chapter 24,25 Reading and Choice Board
Week 10 08/07 – Chapter 26 Reading, Choice Board, and Catch-Up
Week 11 08/14 – Final Exam due THURSDAY MORNING by 8:00am 8/17

Evaluation methods	In order to pass MDCA 1309.200, the student must achieve a final average grade of 70 or higher. The final grade average will be calculated as follows: Quizzes/Tests – 30% Workbook/Study Guide – 30% Choice Boards – 40%

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	200

Faculty	Dr. Michael Holderer
Office	Music Building Room 107
Phone	903-782-0343
email	mholderer@parisjc.edu

Course	MUSI 1306
Title	Music Appreciation

Description

Music Appreciation (MUSI 1306) is Understanding music through the study of cultural periods, major con

Textbooks

Hansen, Bethanie; Whitehouse, David; and Silverman, Cathy, "Introduction to Music Appreciation" (2014). ePress Course Materials.This is a ***free*** online textbook. It is available as a PDF through BlackBoard.

Schedule

Week 1 **Introduction to Music Appreciation / Exam 1**
Week 2 **Music of the Middle Ages / Exam 2**
Week 3 **The Baroque Period / Exam 3**

Week 4-5 **The Classical Period / Exam 4**
Week 6-7 **The Romantic Period / Exam 5**
Week 8 **The Twentieth Century and Beyond**
FINAL EXAM

Evaluation methods	**EXAM 1** **50** **EXAM 2** **50** **EXAM 3** **50** **MID-TERM** **100** **EXAM 4** **50** **EXAM 5** **100** **FINAL EXAM** **100** **CONCERT REVIEW 1** **100** **CONCERT REVIEW 2** **100** **Attendance** **300**

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	100

Faculty	Carey Gable
Office	ADM 133 - By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	NCBI 0004.100, Online
Title	Non-Course Based Remediation in Writing and Reading

Description

Non-Course Based Remediation in Reading and Writing is designed to fast-track students into college courses by allowing them to take those college-level courses with remediation as a co-requisite rather than requiring a full semester of remediation before allowing students to enter a college-level course.
Credits: 1 Credit Hours, 1 Hour of class each week

Textbooks

No textbook.

Student Learning Outcomes (SLO)

NCBI is designed to assist students by developing the skills needed to successfully complete the associated college-level course. Students, the Instructor of Record in the NCBI, and the instructor in the college-level course will work together to assist the student in gaining the skills needed to be successful in college-level work.

Schedule

Variable schedule based upon student. You are expected to be in class prior to the designated start time. Students are expected to complete course work in an honest manner, using their own intellects and resources designated as allowable by the course instructor. All essays must be typed following MLA (12-point font, Arial or Times New Roman), and will not be accepted in any other form. You can reference the Purdue OWL for further assistance in this regard.

Evaluation methods	Grades in this course are Pass/Fail. Students are required to complete 4 hours of instruction with 70% accuracy in order to pass the course. Students who fail to complete the required number of hours, but who pass the paired college-level course will also pass the course. The whole idea behind this course is that students will gain the skills needed to pass the college-level course. The NCBO will end in the 8th week of the regular spring and fall semesters, and it may be repeated once if needed.

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	400

Faculty	Carey Gable
Office	ADM 133 - By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	NCBI 0004 Online
Title	Non-Course Based Remediation in Writing and Reading

Description

Non-Course Based Remediation in Reading and Writing is designed to fast-track students into college courses by allowing them to take those college-level courses with remediation as a co-requisite rather than requiring a full semester of remediation before allowing students to enter a college-level course.
Credits: 1 Credit Hours, 1 Hour of class each week

Textbooks

No textbook.

Student Learning Outcomes (SLO)

NCBI is designed to assist students by developing the skills needed to successfully complete the associated college-level course. Students, the Instructor of Record in the NCBI, and the instructor in the college-level course will work together to assist the student in gaining the skills needed to be successful in college-level work.

Schedule

Variable schedule based upon student. You are expected to be in class prior to the designated start time. Students are expected to complete course work in an honest manner, using their own intellects and resources designated as allowable by the course instructor. All essays must be typed following MLA (12-point font, Arial or Times New Roman), and will not be accepted in any other form. You can reference the Purdue OWL for further assistance in this regard.

Evaluation methods	Grades in this course are Pass/Fail. Students are required to complete 4 hours of instruction with 70% accuracy in order to pass the course. Students who fail to complete the required number of hours, but who pass the paired college-level course will also pass the course. The whole idea behind this course is that students will gain the skills needed to pass the college-level course. The NCBO will end in the 8th week of the regular spring and fall semesters, and it may be repeated once if needed.

Paris Junior College Syllabus

Year	2023
Term	Summer 1
Section	500

Faculty	Carey Gable
Office	ADM 133 - By Appointment
Phone	903-782-0237
email	cgable@parisjc.edu

Course	NCBI 0004.100, Online
Title	Non-Course Based Remediation in Writing and Reading

Description

Non-Course Based Remediation in Reading and Writing is designed to fast-track students into college courses by allowing them to take those college-level courses with remediation as a co-requisite rather than requiring a full semester of remediation before allowing students to enter a college-level course.
Credits: 1 Credit Hours, 1 Hour of class each week

Textbooks

No textbook.

Student Learning Outcomes (SLO)

NCBI is designed to assist students by developing the skills needed to successfully complete the associated college-level course. Students, the Instructor of Record in the NCBI, and the instructor in the college-level course will work together to assist the student in gaining the skills needed to be successful in college-level work.

Schedule

Variable schedule based upon student. You are expected to be in class prior to the designated start time. Students are expected to complete course work in an honest manner, using their own intellects and resources designated as allowable by the course instructor. All essays must be typed following MLA (12-point font, Arial or Times New Roman), and will not be accepted in any other form. You can reference the Purdue OWL for further assistance in this regard.

Evaluation methods	Grades in this course are Pass/Fail. Students are required to complete 4 hours of instruction with 70% accuracy in order to pass the course. Students who fail to complete the required number of hours, but who pass the paired college-level course will also pass the course. The whole idea behind this course is that students will gain the skills needed to pass the college-level course. The NCBO will end in the 8th week of the regular spring and fall semesters, and it may be repeated once if needed.

Paris Junior College Syllabus

Year	2023	Faculty	Donald R Bates
Term	Summer 1st term	Office	133B
Section	NCBI 0116 100	Phone	903.782.0317
		email	dbates@parisjc.edu

Course	NCBI 0116 100
Title	Non-Course Based Remediation in Reading and Writing

Description

Non-Course Based Remediation in Reading and Writing is designed to fast-track students into college courses by allowing them to take those college-level courses with remediation as a co-requisite rather than requiring a full semester of remediation before allowing students to enter a college-level course.
Students who score within two-three points of entry into a college-level reading and or writing course are allowed to take the college-level course with the NCBI as a co-requisite.

Textbooks

None. However, the Macmillan Solo Learning Labs must be purchased and completed to finish this course.

Student Learning Outcomes (SLO)	NCBI is designed to assist students by developing the skills needed to successfully complete the associated college-level course. Students, the Instructor of Record in the NCBI, and the instructor in the college-level course will work together to assist the student in gaining the skills needed to be successful in college-level work.
Schedule	ONLINE

Evaluation methods	Student must successfully complete the Macmillan Solo Labs.

Paris Junior College Syllabus

Year	2023	Faculty	Donald R Bates
Term	Summer 1st term	Office	133B
Section	NCBI 0116 400	Phone	903.782.0317
		email	dbates@parisjc.edu

Course	NCBI 0116 400
Title	Non-Course Based Remediation in Reading and Writing

Description

Non-Course Based Remediation in Reading and Writing is designed to fast-track students into college courses by allowing them to take those college-level courses with remediation as a co-requisite rather than requiring a full semester of remediation before allowing students to enter a college-level course.
Students who score within two-three points of entry into a college-level reading and or writing course are allowed to take the college-level course with the NCBI as a co-requisite.

Textbooks

None. However, the Macmillan Solo Learning Labs must be purchased and completed to finish this course.

Student Learning Outcomes (SLO)	NCBI is designed to assist students by developing the skills needed to successfully complete the associated college-level course. Students, the Instructor of Record in the NCBI, and the instructor in the college-level course will work together to assist the student in gaining the skills needed to be successful in college-level work.
Schedule	ONLINE

Evaluation methods	Student must successfully complete the Macmillan Solo Labs.

Paris Junior College Syllabus

Year	2023	Faculty	Donald R Bates
Term	Summer 1st term	Office	133B
Section	NCBI 0116 500	Phone	903.782.0317
		email	dbates@parisjc.edu

Course	NCBI 0116 500
Title	Non-Course Based Remediation in Reading and Writing

Description

Non-Course Based Remediation in Reading and Writing is designed to fast-track students into college courses by allowing them to take those college-level courses with remediation as a co-requisite rather than requiring a full semester of remediation before allowing students to enter a college-level course.
Students who score within two-three points of entry into a college-level reading and or writing course are allowed to take the college-level course with the NCBI as a co-requisite.

Textbooks

None. However, the Macmillan Solo Learning Labs must be purchased and completed to finish this course.

Student Learning Outcomes (SLO)	NCBI is designed to assist students by developing the skills needed to successfully complete the associated college-level course. Students, the Instructor of Record in the NCBI, and the instructor in the college-level course will work together to assist the student in gaining the skills needed to be successful in college-level work.
Schedule	ONLINE

Evaluation methods	Student must successfully complete the Macmillan Solo Labs.

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	200

Faculty	Shelby Shelton
Office	SC 215
Phone	903-782-0348
email	sshelton@parisjc.edu

Course	PHED 1301
Title	Foundations of Kinesiology

Description

The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities.

Textbooks

Fundamentals of Kinesiology
3rd edition by Stanley P. Brown (2nd will work as well if needed)
ISBN: 978-1-7924-5134-8

Student Learning Outcomes (SLO)

Upon successful completion of this course, students will:
•Distinguish between and identify terminology and research within the sub-disciplines in the field of Kinesiology and their application to diverse careers.
•Summarize the historical and philosophical approaches to physical activity, physical education,

Schedule

Schedule is tentative and may change. It is the student's responsibility to check Blackboard for all class announcements and assignments. Grades, except for participation, will also be posted on Blackboard. Final grades will be submitted via My PJC portal. All units are due by 11:59pm on due dates.
UNIT 1: The nature and scope of physical education and sport – terminology, philosophy and objectives, and the role of physical education and sport are explored. In addition, historical figures & periods through the 1920s and their influences on physical education and sport are discussed. (June 11) (June 7-Intro Post)
UNIT 2: Exploring the basic concepts of sport, as well as, various sports programs and professions. (June 18)
UNIT 3: Issues and patterns in sport, fitness, and physical education are presented. (June 25)
UNIT 4: Current issues impacting the future of physical education and sport are discussed, as well as, foundations of physical education and sport, the sub-disciplines of exercise physiology, biomechanics, sport psychology, and sport sociology are explored. (July 2)
UNIT 5:Exploring the sub-disciplines supporting the profession and social-science professions (July 9)
Readings:

Evaluation methods	Assignment point value 12 chapters Quizzes - 2 per chapter (T/F & M/C) 20 points each 480 points Exams – 5 total 1 each Unit 100 points each 500 points Article reviews -5 total 20 points each 100 points Introduction Post 100 points Total = Possible 1180 Points Grading policy A 1180 – 1062 points B 1061 – 944 points C 943 – 876 points D 875 – 708 points

Paris Junior College Syllabus

Year	2023-2024	Faculty	Fernando Arellano
Term	Summer I	Office	AS 143
Section	200	Phone	903-785-0398
		email	farellano@parisjc.edu

Course PHED 1304.200 ONLINE

Title Personal and Community Health

Description

This course provides an introduction to the fundamentals, concepts, strategies, applications and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ablilty to practice healthy living, promote ealthy lifestyles and enhance individual well-being.

Textbooks

Core Conceptions in Health- 16th Edition- ISBN # 978-1-260-07409-3

Student Learning Outcomes (SLO)

Evaluate the dimensions of health and how they relate to personal/community wellness.
Explain the importance of nutrition, a healthy lifestyle and staying physically actice in preventinf premature disease and promoting wellness. Describe the leading health problems, trends and needs to diverse populations.
Identify major agencies, foundations and associating supporting health at local, state, national and international levels as well as data tools and resources.
Evaluate sources of health informations, including the internet to determine reliability.
Develop and implement a plan of healthy behavior to meet personal and community needs to

Schedule

Week 1- Unit 1-3
Week 2- Unit 4-6
Week 3- Unit 7-9
Week 4- Unit 10-12
Week 5- Unit 13-15
Week 6-
Week 7-
Week 8-
Week 9-
Week 10-
Week 11-
Week 12-
Week 13-
Week 14-
Week 15-
Week 16-

Evaluation methods	Course Requirements and Evaluation: 15 Chapter Quizzes - 20 points each - 300 points total Discussions/Board Assignments - 60 points each - 300 points total unit Exams - 100 points each - 500 points total Total Points - 1100 Possible Points Grading Scale: 990-1100 - A 880-989 - B 770-879 - C 660-769- D Below 660- F	5

Paris Junior College Syllabus

Year	2023
Term	Summer
Section	200

Faculty	Brittany Christian
Office	Hunt 104
Phone	903-782-0207
email	bchristian@parisjc.edu

Course	PHED 1306
Title	First Aid

Description

This course is designed to develop the knowledge and skills necessary to be effective as a civilian NON-CERTIFIED first responder to minor accidents, injuries, and sudden illness. Caregiving skills while formal medical response is enroute will be taught as well as accident prevention principles will be also included. THIS COURSE IS NOT A CERTIFICATION OF FORMAL MEDICAL TRAINING AND AS SUCH, DOES NOT AUTHORIZE THE PRACTICE OF ANY MEDICAL

Textbooks

Responding to Emergencies, New and Revised edition, 2012 Publisher: American Red Cross, Krames Stay Well Publishers ISBN Number 978-1-58480-554-0

Student Learning Outcomes (SLO)

1.Develop the knowledge and skills needed to meet many different types of situations when emergency first aid care is needed and, medical assistance is not excessively delayed.
2.Develop the knowledge and skills needed to aid the infant, the child or the adult who is experiencing a breathing emergency.

Schedule

Exam 1: June 10, 2023
Exam 2: June 17, 2023
Exam 3: June 24, 2023
Exam 4: July 1, 2023
Exam 5: July 8, 2023

Evaluation methods	15 Chapter Quizzes @ 20 pts. Each = 300 Points 5 Discussion Board Assignments (Class Participation) @ 60 pts. Each = 300 Points 5 Unit Exams @ 100 pts. Each = 500 Points Total = 1100 Possible Points Grading Scale: 990-1100 = A 880-989 = B 770-879 = C 660-769 = D Below 660 = F

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	200

Faculty	Lee H. LaRue
Office	MS 210G
Phone	903-782-0334
email	llarue@parisjc.edu

Course	PHYS 1303
Title	Astronomy I Online

Description

The first half of a general survey of astronomy. Topics will include: review of basic terminology of astronomy, gravity, light, brief overview of the solar system, stars, galaxies, and cosmology. Lab is contained within the course.

Textbooks

Required Text and materials:
Bennett, Donahue, Schneider, Voit, The Essential Cosmic Perspective, with Mastering Astronomy, 9th ed., Addison- Wesley/Pearson Pub. Co., ISBN 9780135795798.

Student Learning Outcomes (SLO)

1. The student will demonstrate an understanding of the scientific method by applying it in a lab setting.
2. The student will demonstrate an understanding of the structure of the universe, from atom to solar system to galaxy to cosmos.

Schedule

Week 1 Review of Terminology and Theories forAstronomy I;
Motion, Light, Spectroscopy
Week 2 Planetary Motion;
Formation of the Solar System;
Stars
Week 3 More on Stars
Week 4 Galaxies
Week 5 Cosmology
Final Exam

Evaluation methods	Chapter Tests: 25% Mid Term Exam: 25% Labs: 25% Final Exam: 25% Total 100%

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	200

Faculty	LaRue
Office	MS210G
Phone	903-782-0334
email	llarue@parisjc.edu

Course	PHYS 1401
Title	College Physics

Description

This course is the first half of a general survey of physics requiring a background in algebra and trigonometry. Topics will include: measurement, motion in one dimension, vectors, motion in two dimensions, Newton's Laws of Motion, work, power, and energy, momentum and collisions, rotational motion, gravitation, Kepler's Laws of Planetary Motion, torque and angular momentum, thermodynamics, oscillations and waves. Topics from astronomy will be included to show the

Textbooks

Required reading: 1. OpenStax College Physics -- free pdf at https://openstax.org/details/books/college-physic; if you want a paperback copy use ISBN 978-1-938168-00-0.
2. Expert TA online homework system ISBN 978-099-616-4696 .

Student Learning Outcomes (SLO)

Student Learner Objectives
1. The student will demonstrate an understanding of the scientific method through laboratory work.
2. The student will demonstrate an understanding of the study of kinematics and dynamics, including the equations of motion and Newton's Laws of Motion, both in terms of linear and

Schedule

Week 1 Ch 1-3, and Test 1 (Ch. 13); begin Ch. 4.
Week 2 Ch. 4-6 and Test 2 over Ch 1-6
Week 3 Ch 7-8 and Test 3 over Ch. 7-8.
Week 4 Ch 9, 10, 13-15 and Test 4 (over Ch 9, 10, 13-15)
Week 5 Ch 16-17
Final Exam (Exam is comprehensive)

Evaluation methods	Grades will be determined as follows: Tests I, II, III, IV 40% (10% each) Homework 15% Labs 25% Final Exam 20% Total 100%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer 1
Section	200

Faculty	Marla Cox
Office	Greenville Campus #209
Phone	903-454-9333
email	mcox@parisjc.edu

Course	PSYC 2301
Title	General Psychology

Description

General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.
Credits: 3 SCH
TSI Requirement: Reading Complete, or minimum score of 351 on TSI placement test.

Textbooks

ISBN # 9781319472399. This provides the Hockenbury, S. E. & Nolan, S. A. (2022). Discovering Psychology (9th Ed.). New York: Worth Publishers, loose-leaf edition of Discovering Psychology and Read and Practice access code.

Student Learning Outcomes (SLO)

Required Core Objectives: Students successfully completing this course will demonstrate competency in the following Core Objectives:
1. Critical Thinking Skills -- to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

Schedule

Week 1-Course introduction; Reading and online assignments for Chapters' 1 & 2.
Week 2-Reading and online assignment for Chapter 4, Section 1 Essay Exam, Self-Evaluation & Reading and online assignments for Chapter 5.
Week 3-Reading and online assignments for Chapters' 6, 11, & 12.
Week 4-Section 2 Essay Exam. Reading and online assignments for Chapters' 13 & 14.
Week 5-Reading and online assignments for Chapters' 11, 13, & 14.
Week 6-Reading and online assignments for Chapter 15. Fourth of July holiday. Section 3 Essay Exam,
Week 7-SLO Exit Quiz & Final Comprehensive Exam.

Evaluation methods	• Students will be given the following opportunities to demonstrate knowledge of class material: 200 points-Comprehensive Final Exam: Students will complete an objective final comprehensive examination covering reading and daily work assignments over chapters 1, 2, 4, 5, 6, 9, 10, 11, 13, & 14. 150 points-Section Essay Exams: Students will complete three essay exams over each section in the course. Section 1 will cover chapters 1, 2, & 4; Section 2 will cover chapters 5, 6, 9, & 10; Section 3 will cover chapters 11, 13, & 14. Students are encouraged to use their textbooks and materials while completing the essay exams. 100 points-Chapter Quizzes: Students will complete 10 online (timed) chapter quizzes. Students can use their textbooks and materials and each quiz is worth 10 points. 50 points-Participation/Discussions: Students will be required to participate in online discussions

Paris Junior College Syllabus

Year	2022-2023
Term	Summer 1
Section	200

Faculty	Marla Cox
Office	Greenville Campus #209
Phone	903-454-9333
email	mcox@parisjc.edu

Course	PSYC 2314.200
Title	Psychology of Lifespan Growth & Development

Description

Life-Span Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death.
Credits: 3 SCH; TSI Requirement: Reading Complete or minimum score of 351 on TSI placement test.

Textbooks

Feldman, R.S. (2020). Life Span Development: A Topical Approach (4th Ed.). New Jersey: Pearson Education, Inc. ISBN # 9780135178751
The ISBN # is for the REVEL E-book, which includes access to all REVEL work.

Student Learning Outcomes (SLO)

Required Core Objectives: Students successfully completing this course will demonstrate competency in the following Core Objectives:
1. Critical Thinking Skills -- to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

Schedule

Week 1-Course introduction and introductory assignments. Reading and online assignments for Chapters' 1, 2, & 3.
Week 2-Reading and online assignments for Chapter 4. Section 1 Essay Exam. Reading and online assignment for Chapters 5, 6, & 7.
Week 3-Reading and online assignments for Chapter 8. Section 2 Essay Exam. Mid-term Exam. Reading and online assignments for Chapter 9.
Week 4-Reading and online assignments for Chapters' 10, 11, 12. Section 3 Essay Exam. Reading and online assignments for Chapter 13.
Week 5-Reading and online assignments for Chapters 14 & 15. Section 4 Essay Exam. SLO Exit Quiz.
Week 6-Final Exam.

Evaluation methods	• Students will be given the following opportunities to demonstrate knowledge of class material: 200 points-Major Exams: Students will complete two objective Major Exams. The Mid-term Exam (over Sections 1 & 2) and the Final Exam (over Sections 3 & 4). 100 points- Essay Exams: Students will complete 4 online essay exams (over Sections 1, 2, 3, & 4). These exams can be worked on, progressively, are not timed, and are worth 25 points each. 125 points-Revel- Students will have the opportunity to earn points by logging into the REVEL course space and completing reading comprehensive quizzes as they read through the e-book in REVEL, and Chapter Quizzes, after they have completed reading each chapter. Students will need a REVEL access code to access the REVEL course space and materials. 75 points-Discussions-Studentts will participate in a Discussion Forum, for each Chapter covered. _____

Paris Junior College Syllabus

Year	2022
Term	Summer
Section	190

Faculty	Laura Fendley
Office	WTC 1066
Phone	903-782-0765
email	lfendley@parisjc.edu

Course	RADR 1213
Title	Principles of Radiographic Imaging I

Description

Understand and apply concepts and theories of equipment operations and their integration for medical diagnosis.

Textbooks

1. Radiologic Science for Technologists Physics, Biology, & Protection, Bushong, 12th edition, 2021, ISBN: 978-0-323-66134-8
2. Principles of Radiologic Imaging: An Art and A Science, Carlton, Alder, 6th edition, 2018, ISBN: 978-1-337-71106-7

Student Learning Outcomes (SLO)

Upon completion of this program, it is expected that a graduate will be able to:
1. Apply the basic principles of radiographic image acquisition to image quality
2. Analyze the effects of exposure variables upon image quality.
3. Identify Radiation Production and Characteristics

Schedule

Week 1-Orientation
Week 2-Radiation Concepts, Tube, Assignment
Week 3-X-ray Production & Interactions, Assignment, Quiz
Week4- Exam, Assignment
Week 5-Density/Image Receptor Exposure, Assignment
Week 6- Contrast, Imaging Process, Assignment
Week 7 - Exam, Assignment
Week 8- Spatial Resolution/Recorded Detail, Distortion, Assignment
Week 9- Grids, Beam Restriction, Digital Imaging - Image Receptors, Assignment
Week 10- Exam, Final Exam Review
Week 11- Final Exam

Evaluation methods

Exams 50%
Quizzes 25%
Assignments 15%
Final Exam 10%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	190

Faculty	Heather Unruh
Office	WTC 1064
Phone	903-782-0743
email	hunruh@parisjc.edu

Course	RADR 1267
Title	Practicum (or Field Exeperience) - Radiologic Technology/Science - Radiographer

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and the student.

Textbooks

1. Introduction to Radiologic Science and Patient Care, Adler, Carlton, 7th edition, 2019, Saunders-Elsevier, ISBN: 978-0-3233-56671-1
2. Merrill's Atlas of Radiographic Positions & Radiologic Procedures Volume I, Frank, Long, Smith,14th edition, 2018, Mosby-Elsevier, ISBN-13:978-0-3235-6768-8
3. Merrill's Atlas of Radiographic Positions & Radiologic Procedures Volume II, Frank, Long, Smith, 14th edition, 2018, Mosby-Elsevier, ISBN-13: 978-0-3235-6767-1
4. The Workbook - Merrill's Atlas of Radiographic Positioning, & Procedures, Frank, Long, Smith, 14th edition, 2018, ISBN: 978-0-3235-9704-3
5. Merrill's Pocket Guide to Radiography, Frank, Long, Smith, 14th edition, 2018, Mosby-Elsevier, ISBN-13: 978-0-3236-1213-5

Student Learning Outcomes (SLO)

Upon completion of this program, it is expected that a graduate will be able to
1. Promote Exemplary Customer Service.
2. Evaluate radiographic images effectively.
3. Utilize critical thinking in trauma situations.

Schedule

Week 1-Clinical Orientation/Review
Week 2-10: 16 hours weekly Precepted Clinical Experience at facilities and 6 hours weekly in labs/case studies.
Week 11-Final Evaluations/Paperwork

Evaluation methods

Based on the number of mastered competencies 49%
Based on an average of all clinical instructor' evaluation forms:
- PT Care 15%
- Professional 15%
- Knowledge/Skills 16%
- Attendance 5%

Paris Junior College Syllabus

Year	2023
Term	Summer
Section	190

Faculty	Laura Fendley
Office	WTC 1066
Phone	903-782-0765
email	lfendley@parisjc.edu

Course	RADR 2205
Title	Principles of Radiographic Imaging II

Description

Radiographic image quality and the effects of exposure variables, and the synthesis of all variables in image production. Radiographic image technique formulation including quality control and assurance.

Textbooks

1. Radiologic Science for Technologists Physics, Biology, & Protection, Bushong, 11th edition, 2017, ISBN: 978-0-323-35377-9
2. Principles of Radiographic Imaging, Adler & Carlton, 6th edition, 2018, ISBN: 978-1-337-71106-7

Student Learning Outcomes (SLO)

After completion of the course, the graduate will be able to:
1. Analyze image quality standards.
2. Evaluate images.
3. Identify Characteristics of Image Receptors
4. Define the imaging process
5. Adapt technical variables to changing conditions.
6. Identify image equipment quality control standards
7. Identify image quality assurance.
8. Identify effects of exposure variables
9. Analyze techniques for procedures to minimize patient exposure

Schedule

Week 1-Orientation, Minimizing Patient Dose, Prime Factors, Imaging Quality Standards
Week 2 - Radiation Protection Concepts and Equipment
Week 3 - Beam Restriction, Patient as Emitter, Pathology
Week 4 - Exam, Grids
Week 5 - Digital Radiography - Technical Considerations
Week 6 - Digital Radiography Processing, CR, DR
Week 7 - Exam, PACS, Imaging Process
Week 8 - Exposure, Characteristics of Image Receptors & Exposure - (D/C)
Week 9 - Image Processing, Critque, & Analysis
Week 10 - Exam, Final Exam Review
Week 11 - Final Exam

Evaluation methods

Exams 50%
Quizzes 25%
Assignments 15%
Final Exam 10%

Paris Junior College Syllabus

Year	2023	Faculty	Laura Fendley
Term	Summer	Office	WTC 1066
Section	190	Phone	903-782-0765
		email	lfendley@parisjc.edu

Course RADR 2267

Title Practicum (or Field Exeperience) - Radiologic Technology/Science - Radiographer

Description

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and the student.

Textbooks

1. Introduction to Radiologic Science and Patient Care, Adler, Carlton, 7th edition, 2019 ISBN: 978-0-323-56671-1
2. Merrill's Atlas of Radiographic Positions & Radiologic Procedures Volume 1, Frank, Long, Smith, 14th edition, 2018, ISBN: 978-0-3235-6768-8
3. Merrill's Atlas of Radiographic Positions & Radiologic Procedures Volume 2, Frank, Long, Smith, 14th edition, 2018, ISBN: 978-0-3235-6767-1
4. Merrill's Atlas of Radiographic Positions & Radiologic Procedures Volume 3, Frank, Long, Smith, 14th edition, 2018, ISBN: 978-0-3235-6766-4
5. Merrill's Atlas of Radiographic Positioning, & Procedures Workbook, Frank, Long, Smith, 14th edition, 2018, ISBN: 978-0-3235-9704-3
6. Principles of Radiologic Imaging: An Art and A Science, Carlton, Alder, 6th edition, 2019, ISBN: 978-1-337-71106-7
7. Merrill's Pocket Guide to Radiography, Frank, Long, Smith, 14th edition, 2018, ISBN:978-0-3236-1213-5

Student Learning Outcomes (SLO)

Upon completion of this program, it is expected that a graduate will be able to
1. Promote Exemplary Customer Service.
2. Evaluate radiographic images effectively.
3. Utilize critical thinking in trauma situations.

Schedule

Week 1-Clinical Orientation
Week 2-10: 24 hours weekly Precepted Clinical Experience at facilities and 1.5 hour weekly clinical discussion, case studies
Week 11-Final Evaluations

Evaluation methods

Based on the number of mastered competencies 49%
Based on an average of all clinical instructor' evaluation forms:
- Patient Care 15%
- Professional 15%
- Knowledge/Skills 16%
- Attendance 5%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	190

Faculty	Heather Unruh
Office	WTC 1064
Phone	903-782-0734
email	hunruh@parisjc.edu

Course	RADR 2301
Title	Intermediate Radiographic Procedures

Description

A continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of anatomy.

Textbooks

1. Introduction to Radiologic Science and Patient Care, Adler, Carlton, 7th edition, 2019, Saunders-Elsevier, ISBN: 978-0-3233-56671-1
2. Merrill's Atlas of Radiographic Positions & Radiologic Procedures Volume I, Frank, Long, Smith,14th edition, 2018, Mosby-Elsevier, ISBN-13:978-0-3235-6768-8
3. Merrill's Atlas of Radiographic Positions & Radiologic Procedures Volume II, Frank, Long, Smith, 14th edition, 2018, Mosby-Elsevier, ISBN-13: 978-0-3235-6767-1
4. The Workbook - Merrill's Atlas of Radiographic Positioning, & Procedures, Frank, Long, Smith, 14th edition, 2018, ISBN: 978-0-3235-9704-3
5. Merrill's Pocket Guide to Radiography, Frank, Long, Smith, 14th edition, 2018, Mosby-Elsevier, ISBN-13: 978-0-3236-1213-5

Student Learning Outcomes (SLO)

Upon completion of this program, it is expected that a graduate will be able to
1. Promote Exemplary Customer Service.
2. Evaluate radiographic images effectively.
3. Utilize critical thinking in trauma situations.

Schedule

Week 1-Orientation
Week 2-Outline Ch 11
Week 3-Skull
Week 4-Exam Unit I
Week 5-Facial bones, Nasal Bones, Zygomatic Arches
Week 6--Procedures Asssignment
Week 7-Mandible, TMJs
Week 8-Exam Unit II
Week 9-Paranasal, Sinuses
Week 10-Exam Unit III
Week 11- Review Final Exam
Week 12--Final Exam

Evaluation methods

Quizzes 20%
Assignments 10%
Exams 60%
Final Exam 10%

Paris Junior College Syllabus

Year	2023
Term	Summer I
Section	200

Faculty	Sarah Latham-Staton
Office	Online/Email
Phone	(903) 473-4580
email	slatham@parisjc.edu

Course	SOCI 1301
Title	Introduction to Sociology

Description

This course is designed as an introduction to the science of sociology. Emphasis is given to the foundations of foundations of social life, social inequality, and social change.

The objective of this course is to provide a basic understanding of sociology concepts and theories. Throughou this course will provide opportunities for the student to expand their ability to think critically through a range o interactions and assignments.

Textbooks

Society: The Basics, John J. Macionis, 15th Edition; ISBN 9780134711409 (Older editions will also work.)

Student Learning Outcomes (SLO)

1. Demonstrate a basic understanding of the three major sociological concepts (structural functionalism, confli symbolic interaction) exhibited through weekly assignments and course exams.
2. Demonstrate an understanding and application of sociological theories to discussion topics measured by wri assignments.
3. Demonstrate the ability to think critically as measured by chapter assignments, writing assignment and exam

Schedule	Tentative Course Schedule: Section One •Introduction Discussion (10 pts) •Introductory Assignment (20 pts) Section Two •Introduction to Influential Sociologists •Chapter Assignment (20 pts) •Chapter Discussion (10 pts) Section Three •Chapter 1: Perspective, Theory, and Method •Chapter Assignment (20 pts) •Chapter Discussion (10 pts) Section Four •Chapter 2: Culture •Chapter Assignment (20 pts) •Chapter Discussion (10 pts) Section Five •Chapter 4: Social Interaction •Chapter Assignment (20 pts) •Chapter Discussion (10 pts) Section Six •Chapter 7: Deviance •Chapter Assignment (20 pts) •Chapter Discussion (10 pts) Section Seven •Chapter 14: Education, Health, and Medicine •Chapter Assignment (20 pts) •Chapter Discussion (10 pts) Section Eight
Evaluation methods	Students are expected to read the assigned chapters and supplemental material in the above listed text and parti exercises. There will be one cumulative exam worth 100 points. The exam will consist of multiple-choice questions cove from the assigned readings and class discussions. Chapter assignments will be worth a total of 200 points. Cou roughly two chapters per week and assignments will be completed online. Chapter discussions will be worth a points. The writing assignment will be worth 100 points. You must accumulate 300 points to pass the course. S will be calculated by percentage in Blackboard.

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total of 100
Student grade

Paris Junior College Syllabus

Year	2023
Term	Summer
Section	200

Faculty	Mayra Camacho Cummings
Office	PJC SSC Office 111
Phone	903.885.1232 ext. 2209
email	mcummings@parisjc.edu

Course	SPAN 1411
Title	Beginning Spanish I

Description

Basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. HYBRID ITV COURSE/ONLINE COMPONENT Must submit audio/video attachments.

Textbooks

Becher, Anne, Dorwick, Thalia, lsabelli, Casilde, Pérez-Gironés, Ana . Puntos de Partida. Boston: McGraw-Hill, 2011.
ISBN: 0073385417 / ISBN-13: 9780073385419 9th ed.

Student Learning Outcomes (SLO)

Student Learning Outcomes:
Upon successful completion of this course, students will:
1. Engage in conversations using level appropriate grammatical structures
including narrating events that take place in the present and producing questions and responses on a

Schedule

Unit #1 -
Ante Todo
Capítulo 1 En la universidad Exam #1
Capítulo 2 La familia
Unit #2
Capítulo 3 De Compras
Capítulo 4 En Casa
Unit #3
Capítulo 6 Las estaciones y el tiempo
Capítulo 7 !A Comer! Exam #3
Presentaions
Unit #4
De Viaje/REPASO FINAL Capítulos Preliminar, 1, 2, 3, 4, 5, 6
Review-Presentation II Final Exam

Evaluation methods

Paris Junior College Syllabus

Year	2022-2023
Term	Sum 1
Section	200

Faculty	Alex Peevy
Office	AD 158
Phone	903-782-0321
email	apeevy@parisjc.edu

Course	SPCH 1315
Title	Fundamentals of Public Speaking

Description

Description:
Application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students' speaking abilities, as well as ability to effectively evaluate oral presentations.

Textbooks

Textbook/Materials

The Public Speaking Project. United States, Public Speaking Project, 2011. (Included in the course in PDF format, with a link to the online edition)

Student Learning Outcomes (SLO)

Required Core Objectives
Student Learning Outcomes (Core Curriculum-Level):
1. Demonstrate Critical Thinking Skills--to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

Schedule

Week 1 First Assignment 6/5 Ch. 1 & 3 Module 1

Week 2 Unit 1 test 6/12 Ch. 7, 8, & 13 Module 2
Unit 1 Speech

Week 3 Unit 2 test 6/19 Ch. 11, 6, & 10 Module 3
Unit 2 Speech
Critical Analysis Essay

Week 4 Unit 3 test 6/26 Ch. 4, 9, & 5 Module 4
Unit 3 Speech

Week 5 Unit 4 test 7/3 Ch. 12 & 2 Module 5
Unit 4 Speech
Unit 5 test 7/6
Unit 5 Speech

Evaluation methods	Evaluation Methods: During the course, students will complete five (5) major Performance Exams, one of which includes a group project, and one of which is the Final Exam for the course. Students will also complete writing assignments based on course readings and presentations on TED.com. Lastly, students will complete chapter quizzes contained in each unit and a syllabus quiz. Grade Evaluation: Speech of Introduction 10% Speech to Entertain 10% Speech of Demonstration 15% Group Projec 15% Persuasive Speech (Final) 20%

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Norman Gilbert
Office	WTC 1046
Phone	903-782-0734
email	ngilbert@parisjc.edu

Course	SRGT 1405
Title	Introduction to Surgical Technology

Description

Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts.

Textbooks

Surgical Technology for the Surgical Technologist: A Positive Care Approach (5th ed., 2017), and Study Guide (workbook) to accompany the textbook, Surgical Technology for the Surgical Technologist: A Positive Care Approach, Cengage Delmar publisher.
Available as bundle, ISBN: 978-133-758-4876
Phillips and Sedlak (2018), Surgical Instrumentation, (2nd ed.) Delmar Cengage,
ISBN: 978-1-285-18253-7
Choose one of two Dictionaries:
Mosby, (2013), Mosby's Dictionary of Medicine, Nursing & Health Professions, (9th ed. or newer) Mosby-Elsevier, ISBN: 978-0-3230-7403-3-2
Venes, (2013), Taber's Cyclopedic Medical Dictionary, (22nd ed. or newer), FA Davis,
ISBN: 978-0-8036-2977-6

Student Learning Outcomes (SLO)

Upon completion of this program, it is expected that a graduate will be able to:
1. Explain the physical, interpersonal, and ethical aspects of the operating room environment.
2. Relate basic concepts of surgical pharmacology and anesthesia.
3. Identify and demonstrate patient care concepts including the psychosocial needs of the client.
4. Identify and describe terminology and theories associated with the surgical environment.
5. Distinguish varied job roles of surgical personnel and their responsibilities including professional, legal and ethical aspects.
6. Identify and demonstrate an understanding of different types of health care facilities.

Schedule

Week 1: Orientation/Syllabus/Handbook/Physical
Week 2-3: Unit I (textbook Chapters 1 and 2) Orientation to Surgical Technology; History of Surgery; Surgical Team Members; Standards of Conduct, Professionalism; and Hospital Organization, Legal Environment; Risk Management; Ethics; Scope of Practice
Week 4-5: Unit II (textbook Chapters 5); Physical Environment and Safety Standards
Week 6: Hospital Tour and Clinical Observation
Week 7-8: Unit III (textbook Chapters 3-4); The Surgical Patient and Special Populations
Week 9-10: Unit IV (textbook Chapter 8 & 13); Emergency Situations and All-Hazard Preparation, Diagnostic Procedures; Vital Signs; Laboratory Studies; and Surgical Specimens
Week 11: Unit V (textbook Chapter 9); Surgical Pharmacology and Anesthesia
Week 12: Skills Lab; Competency Evaluation
Week 13: Skills Lab; Competency Evaluation
Week 14: FINAL EXAM

Evaluation methods	5 Unit Examinations (averaged) 65% of course grade Daily Grades (avg.): workbook assignments, quizes, etc. 20% of course grade Comprehensive Final Examination 15% of course grade

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Norman Gilbert
Office	WTC 1046
Phone	903-782-0734
email	ngilbert@parisjc.edu

Course	SRGT 1409
Title	Perioperative Concepts and Asceptic Technique

Description

In-depth coverage of perioperative concepts such as aseptic/sterile principles and practices, infectious processes, wound healing, and creation and management of the sterile field.

Textbooks

Same as used in concurrent course, SRGT1405:
Surgical Technology for the Surgical Technologist: A Positive Care Approach (5th ed., 2017), and Study Guide (workbook) to accompany the textbook, Surgical Technology for the Surgical Technologist: A Positive Care Approach, Cengage Delmar publisher.
Available as bundle, ISBN: 978-133-758-4876
Phillips and Sedlak (2018), Surgical Instrumentation, (2nd ed.) Delmar Cengage,
ISBN: 978-1-285-18253-7
Choose one of two Dictionaries:
Mosby, (2013), Mosby's Dictionary of Medicine, Nursing & Health Professions, (9th ed. or newer) Mosby-Elsevier, ISBN: 978-0-3230-7403-3-2
Venes, (2013), Taber's Cyclopedic Medical Dictionary, (22nd ed. or newer), FA Davis,
ISBN: 978-0-8036-2977-6

Student Learning Outcomes (SLO)

Upon completion of this program, it is expected that a graduate will be able to:
1. Identify and demonstrate principles and practices of aseptic techniques.
2. Explain infectious processes and concepts of wound healing.
3. Maintain a sterile field utilizing basic case preparation and procedures.
4. Identify basic instruments, equipment and supplies by type and function.
5. Demonstrate the care, handling and assembly of basic instruments, equipment and supplies in the operating room.

Schedule

Week 1- Orientation; Syllabus/Handbook Review
Week 2-3: Unit I (textbook Chapter 10); Instrumentation, Equipment and Supplies, Skills LAB
Week 4-5: Unit II (textbook Chapter 7); Preventing Perioperative Disease Transmission; Microbiology of Surgical Site Infection; Decontamination and Sterilization; Principles of Asepsis, Skills LAB
Week 6: Hospital Tour and Clinical Observation
Week 7-8: Unit III (textbook Chapter 12); Surgical Case Management; Perioperative Routines; Patient Transport and Positioning; Skin Prep; OR Attire; Sterile Fields; Draping; Turnover, Skills LAB
Week 9-10: Unit IV (textbook Chapter 11); Wound Healing, Sutures/Needles and Stapling Devices, Skills LAB; Clinical Observation
Week 11: Unit V (textbook Chapter 6); Biomedical Sciences; Minimally Invasive Surgery; LASER applications; Robotics, Skills LAB; Clinical Observation
Week 12: Skills Lab; Clinical Observation
Week 13: Skills Lab; Skills Competency Evaluation
Week 14: Skills Competency Evaluation; FINAL Exam

Evaluation methods	4-5 Unit Examinations (averaged) 50% of course grade Lab Skills and Daily Grades (avg.): workbook assignments, quizes, etc. 10% of course grade Two-part Comprehensive Final Examination, 40% of course grade, including Pre-Clinical Skills Practicum requiring 75% minimum score.

Paris Junior College Syllabus

Year	2022-2023	Faculty	Norman Gilbert
Term	SUMMER	Office	WTC 1046
Section	185	Phone	903-782-0734
		email	ngilbert@parisjc.edu

Course	SRGT 1441
Title	Surgical Procedures I

Description	Introduction to surgical procedures and related pathologies. Emphasis on surgical procedures related to general, obstetrics/gynecology, genitourinary, otorhinolaryngology and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for perioperative patient care.
Textbooks	Surgical Technology for the Surgical Technologist A Positive Care Approach and Study Guide, 2017, 5th ed. Caruthers, Delmar Publishing. ISBN: 978-1-305-95641-4 (includes Textbook w/Study guide workbook) Differentiating Surgical Instruments, 2nd ed., 2012. Rutherford, FA Davis Publishing. ISBN: 978-0-8036-2545-7 Medical Dictionary: Either, Mosby's Medical, Nursing, & Allied Health Dictionary, ISBN: 0-323-01430-5, or Taber's Cyclopedic Medical Dictionary, ISBN: 0-8036-1207-9 (any recent edition).
Student Learning Outcomes (SLO)	Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care.
Schedule	Week 1: Orientation, General Surgery Week 2: General Surgery continued Week 3: General Surgery continued Week 4: Exam General Surgery, Begin Orthopedics Week 5: Orthopedics continued Week 6: Exam Orthopedics, Begin OB/GYN Week 7: OB/GYN continued Week 8: Exam OB/GYN, Begin Eye/ENT Week 9: Eye/ENT continued Week 10: Exam Eye/ENT, Begin Urology Week 11: Urology continued Week 12: Exam Urology Week 13: Review Topics Week 14: FINAL Exam

Evaluation methods	In order to pass SRGT 1441, the student must achieve a final-grade computation of 75% or higher. The final grade average will consist of: 5 Exams (averaged) 60% Daily Grades (averaged) 20% Comprehensive Final Exam 20% Daily grades may consist of written assignments, critical thinking exercises, lab exercises, and unannounced quizzes (if you are absent, an unannounced quiz can not be made up) and computer exercises. Late assignments will have 10 points deducted for every class day that it is late, unless excused absence is documented. If you miss an exam, you must contact the instructor as soon as possible. Make-up exams will be fill-in the blank or essay. Students who have unsatisfactory progress in classroom will be given written notification and a plan for remediation will be completed.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Norman Gilbert
Office	WTC 1046
Phone	903-782-0734
email	ngilbert@parisjc.edu

Course	SRGT 2461
Title	Clinical - Surgical Technology/Technologist

Description

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

Textbooks

Surgical Technology for the Surgical Technologist A Positive Care Approach and Study Guide, 2017, 5th ed. Caruthers, Delmar Publishing. ISBN: 9781337584876 (includes Textbook w/Study guide workbook and electronic Access Code)
Differentiating Surgical Instruments, 2nd ed., 2012. Rutherford, FA Davis Publishing. ISBN: 978-0-8036-2545-7
Medical Dictionary: Either, Mosby's Medical, Nursing, & Allied Health Dictionary, ISBN: 0-323-01430-5, or Taber's Cyclopedic Medical Dictionary, ISBN: 0-8036-1207-9 (any recent edition).

Student Learning Outcomes (SLO)

As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal

Schedule

Week 1	No clinical attendance (orientation site-visits)
Week 2-5	Clinical site attendance (rotation 1) per student schedule
Week 6-9	Clinical site attendance (rotation 2) per student schedule
Week 10-13	Clinical attendance (rotation 3) per student schedule
Week 14	Clinical attendance/ make-up days; FINAL Exam

Evaluation methods

Clinical grade computation is determined by over-all participation (number of cases scrubbed, minimum 120), reported scrub-roles (observation, with-assistance, solo), observation-based skills-evaluation (preceptor/instructor), and average of graded assignments (instructor). In order to pass SRGT 2461, the student must achieve a final average-grade of 75 or higher. The final grade average will consist of:
Instructor evaluation of skills 35% of course grade
Preceptor evaluation of skills 45% of course grade
Instructor assignments (avg.) 20% of course grade

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	190

Faculty	Dani Gerhardt-Gilbreath
Office	WTC 1058
Phone	903.782.0745
email	dgilbreath@parisjc.edu

Course	VNSG 1160
Title	Clinical-Licensed Practical/Vocational Nurse Training

Description

A health-related work-based learning experience enabling the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional and will guide the vocational student into their independent practice under the direct supervision of an RN or other licensed health-care professional.

Textbooks

Required Summer 2023:
Lippincott CoursePoint+ Enhanced for Ricci, Kyle & Carman's Maternity and Pediatric Nursing
ISBN: 9781975156879
Required Fall 2023:

Student Learning Outcomes (SLO)

1. Demonstrate competency in basic nursing skills.
2. Compare and contrast normal physiology of body systems to pathologic variations in the client with common medical-surgical health care problems.
3. Apply nursing knowledge of evaluation and treatment to the care of clients with common medical-

Schedule

Week 1- Syllabi Review and ATI training
Week 4 - Community Service Request Due
Week 6, 8, and 9- Clinical Paperwork
Week 9-Hospital Clinicals and "Stop The Bleed" Workshop
Week 10- Hopsital Clinicals and Pediatric Teaching Project Presentations
Week 11- Community Service Project Presentations and Med Term Quiz

Evaluation methods	Direct observation by clinical instructors, graded paperwork, evaluations from community service managers, skills and clinical objective sheets

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	190

Faculty	Dani Gerhardt-Gilbreath
Office	WTC 1058
Phone	903.782.0745
email	dgilbreath@parisjc.edu

Course	VNSG 1222
Title	Vocational Nursing Concepts

Description

Introduction to the nursing profession and its responsibilities. Includes legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. The course will also include an introduction to the personal adjustments essential to the vocational nurse's development.

Textbooks

Required Summer 2023:
Lippincott CoursePoint+ Enhanced for Ricci, Kyle & Carman's Maternity and Pediatric Nursing
ISBN: 9781975156879
Required Fall 2023:

Student Learning Outcomes (SLO)

1. Demonstrate knowledge of the Texas Nurse Practice Act, Texas BON rules, and all federal, state, and local government and accreditation organization requirements that emphasizes safety.
2. Identify the role of the licensed vocational nurse.
3. Identify the relationship between the standards of nursing practice and the role of the vocational

Schedule

Week 1-Nursing History/Healthcare Systems
Week 2- Legal/Ethical
Week 3- Communication
Week 4- Culture and Spirituality
Week 5- Exam
Week 6- Clinical Decision Making
Week 7- Nursing Process
Week 9- Patient Education
Week 11-Exam 2

Evaluation methods	Direct observation, active learning assignments in class, poster project

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	550

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 2406
Title	Intermediate Pipe Welding

Description

A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Position of welds will be 2G, 5G, and 6G using E6010 and E7018 electrodes. Topics covered include electrode selection, equipment setup, and safe shop practices.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to describe equipment and required pipe preparation.

2. Have the ability perform 2G welds using E6010 and E7018 electrodes.

Schedule

Week 4-6
Skill sets learned in this course will be revisited as needed in the remainder of the semester. Scheduled projects will be S-O-Weld/Butt weld projects on the 2G/5G/6G positions utilizing the GMAW/FCAW/SMAW processes.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	SUMMER
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 1307
Title	Introduction to Multi Processes

Description	Basic welding techniques using some of the following processes: Flux Cored Arc Welding (FCAW), and Gas metal arc welding (GMAW)
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Have the ability to setup and operate a semi-automatic wire feed machine. 2. Have the ability to identify basic weld joints.
Schedule	Week 1-13 Skills obtained in this course will be revisited as needed during the remainder of the semester. Scheduled projects will be fillet/butt weld projects utilizing the SMAW/GMAW/FCAW processes in the vertical position.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	550

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	Jplemons@parisjc.edu

Course	WLDG 1307
Title	Introduction to Multi Processes

Description

Basic welding techniques using some of the following processes: Flux Cored Arc Welding (FCAW), and Gas metal arc welding (GMAW)

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to setup and operate a semi-automatic wire feed machine.

2. Have the ability to identify basic weld joints.

Schedule

Week 1-15 Skills obtained in this course will be revisited as needed during the remainder of the semester. Scheduled projects will be fillet/butt weld projects utilizing the SMAW/GMAW/FCAW processes in the vertical position.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	SUMMER
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 1313
Title	Blue Print Reading for Welders

Description

A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to, safely setup, turn on, and adjust an oxygen/fuel cutting rig.

2. Have the ability to, safely, make quality cuts in all positions using an oxygen/fuel cutting rig.

Schedule

Week 1- 13
The skills obtained in this course will be utilized in preparation for for reading industrial blueprints.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	550

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 1313
Title	Blue Print Reading for Welders

Description

A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to, safely setup, turn on, and adjust an oxygen/fuel cutting rig.

2. Have the ability to, safely, make quality cuts in all positions using an oxygen/fuel cutting rig.

Schedule

Week 1- 15
The skills obtained in this course will be utilized in preparation for for reading industrial blueprints.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 1327
Title	Codes and Standards

Description

An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and nondestructive test methods.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Categorize major codes; identify welding procedures; identify welding and NDT symbols; list responsibilities of inspectors; evaluate destructive testing; list alloys/phases of metals; state the effects of heating and cooling; and shop inspection standards; develop welding procedures; and identify NDT test methods and welding discontinuities.

Schedule

Week 4-13
Students will practice safe welding concepts while learning the SMAW process in the 1G, 2G,5G, and 6G welding positions. Emphasis will be on the E6010/E7018 electrodes. Emphasis will be put on the GMAW/FCAW process in these positions also.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	565

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 1327
Title	Codes and Standards

Description

An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and nondestructive test methods.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Categorize major codes; identify welding procedures; identify welding and NDT symbols; list responsibilities of inspectors; evaluate destructive testing; list alloys/phases of metals; state the effects of heating and cooling; and shop inspection standards; develop welding procedures; and identify NDT test methods and welding discontinuities.

Schedule

Week 4-13
Students will practice safe welding concepts while learning the SMAW process in the 1G, 2G,5G, and 6G welding positions. Emphasis will be on the E6010/E7018 electrodes. Emphasis will be put on the GMAW/FCAW process in these positions also.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023	Faculty	Matt Siddens
Term	SUMMER	Office	AS 119
Section	185	Phone	903-782-0449
		email	msiddens@parisjc.edu

Course	WLDG 1417
Title	Introduction to Layout and Fabrication)

Description	A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Identify welding symbols; 2. identify and select measuring instruments and tools for fabricating projects; 3. recognize correct layout and fabrication terminology; 4. identify structural shapes and materials.
Schedule	Week 1- 15 Students will use various types of layout and fabrication exercises to mirror real job shop/construction site atmospheres, both on paper and hands on with emphasis being on all types of pipe fitting and fabrication. Group projects as well as individual projects are required.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	565

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 1417
Title	Introduction to Layout and Fabrication)

Description

A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Identify welding symbols;
2. identify and select measuring instruments and tools for fabricating projects;
3. recognize correct layout and fabrication terminology;
4. identify structural shapes and materials.

Schedule

Week 1- 15

Students will use various types of layout and fabrication exercises to mirror real job shop/construction site atmospheres, both on paper and hands on with emphasis being on all types of pipe fitting and fabrication. Group projects as well as individual projects are required.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	SUMMER
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 1428
Title	Introduction to SMAW (Sheilded Metal Arc Welding)

Description	An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions.
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Have the ability to set up, turn on, and operate welding equipment safely. 2. Have the ability to select the correct equipment to weld with.
Schedule	Week 2-4 with subjects/topics to be revisited as needed throughout semester. Scheduled projects will be fillet/butt weld projects utilizing the SMAW/GMAW/FCAW processes in the flat position.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	550

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 1428
Title	Introduction to SMAW (Sheilded Metal Arc Welding)

Description	An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions.
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Have the ability to set up, turn on, and operate welding equipment safely. 2. Have the ability to select the correct equipment to weld with.
Schedule	Week 2-4 with subjects/topics to be revisited as needed throughout semester. Scheduled projects will be fillet/butt weld projects utilizing the SMAW/GMAW/FCAW processes in the flat position.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 1434
Title	Introduction to Gas Tungsten Arc Welding (GTAW)

Description

Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to setup and adjust a TIG welding outfit for different applications.

2. Have the ability to properly select the proper tungsten, filler rod, and shielding gas for different TIG welding applications.

Schedule

Week 4-13
Students will practice safe welding concepts while learning the GTAW process in the 1G, 2G,5G, and 6G welding positions. Emphasis will be on the ER70S2 electrodes. Emphasis will be put on the FCAW/SMAW process in these positions also.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	565

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 1434
Title	Introduction to Gas Tungsten Arc Welding (GTAW)

Description

Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to setup and adjust a TIG welding outfit for different applications.

2. Have the ability to properly select the proper tungsten, filler rod, and shielding gas for different TIG welding applications.

Schedule

Week 4-13
Students will practice safe welding concepts while learning the GTAW process in the 1G, 2G,5G, and 6G welding positions. Emphasis will be on the ER70S2 electrodes. Emphasis will be put on the FCAW/SMAW process in these positions also.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 1435
Title	Introduction to Pipe Welding

Description

An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to translate API codes.

2. Have the ability to select the right rod for the job.

Schedule

Week 1- 3
Students will practice safe welding concepts while learning the SMAW process in the 1G & 2G welding positions. Emphasis will be on the E6010 & E7018 electrodes. Some emphasis will be put on the FCAW process in these positions also.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	550

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 1435
Title	Introduction to Pipe Welding

Description

An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to translate API codes.

2. Have the ability to select the right rod for the job.

Schedule

Week 1- 3
Students will practice safe welding concepts while learning the SMAW process in the 1G & 2G welding positions. Emphasis will be on the E6010 & E7018 electrodes. Some emphasis will be put on the FCAW process in these positions also.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023	Faculty	Matt Siddens
Term	Summer	Office	AS119
Section	185	Phone	903-782-0449
		email	msiddens@parisjc.edu

Course	WLDG 1453
Title	INTERMEDIATE LAYOUT AND FABRICATION

Description

An intermediate course in layout and fabrication. Includes design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, and written specifications.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

. Identify auxiliary views and calculate steel and pipe dimensions using layout tools and construction templates.

2. Identify fittings, weldments, templates, and tools

Schedule

Week 1-13

Students will participate in layout and fabrication exercises to increase skill sets in various methods of field measurement and field verification to include field sketching and interpretation. Emphasis being placed on pipe fitting and fabrication. Group projects as well as individual projects will be required. These skill sets will be utilized and revisited throughout the remainder of the semester.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023	Faculty	John Plemons
Term	Summer	Office	103
Section	565	Phone	903-782-0385
		email	jplemons@parisjc.edu

Course	WLDG 1453
Title	INTERMEDIATE LAYOUT AND FABRICATION

Description	An intermediate course in layout and fabrication. Includes design and production of shop layout and fabrication. Emphasis placed on symbols, blueprints, and written specifications.
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	. Identify auxiliary views and calculate steel and pipe dimensions using layout tools and construction templates. 2. Identify fittings, weldments, templates, and tools
Schedule	Week 1-13 Students will participate in layout and fabrication exercises to increase skill sets in various methods of field measurement and field verification to include field sketching and interpretation. Emphasis being placed on pipe fitting and fabrication. Group projects as well as individual projects will be required. These skill sets will be utilized and revisited throughout the remainder of the semester.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	SUMMER
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 1457
Title	Intermediate SMAW

Description	A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Identify principles of arc welding; 2. describe arc welding operations of fillet and groove joints 3. explain heat treatments of low alloy steels 4. explain weld size and profiles
Schedule	Week 8-15 Skills learned in this course will prepare students for certification to AWS D1.1

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	565

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 1457
Title	Intermediate SMAW

Description

A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Identify principles of arc welding;
2. describe arc welding operations of fillet and groove joints
3. explain heat treatments of low alloy steels
4. explain weld size and profiles

Schedule

Week 8-15 Skills learned in this course will prepare students for certification to AWS D1.1

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 2406
Title	Intermediate Pipe Welding

Description

A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Position of welds will be 2G, 5G, and 6G using E6010 and E7018 electrodes. Topics covered include electrode selection, equipment setup, and safe shop practices.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to describe equipment and required pipe preparation.

2. Have the ability perform 2G welds using E6010 and E7018 electrodes.

Schedule

Week 4-6
Skill sets learned in this course will be revisited as needed in the remainder of the semester. Scheduled projects will be S-O-Weld/Butt weld projects on the 2G/5G/6G positions utilizing the GMAW/FCAW/SMAW processes.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023	Faculty	Matt Siddens
Term	Summer	Office	AS119
Section	185	Phone	903-782-0449
		email	msiddens@parisjc.edu

Course	WLDG 2413
Title	INTERMEDIATE WELDING USING MULTIPLE PROCESSES

Description

Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Identify proper safety equipment and tools and identify and select the proper welding process for a given application.

Schedule

Week 1- 13
Students will use various welding processes during layout and fabrication exercises to mirror real job shop/construction site atmospheres, emphasis being equally placed on safety, layout and fabrication. Group projects as well as individual projects are required.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	550

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 2413
Title	INTERMEDIATE WELDING USING MULTIPLE PROCESSES

Description

Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Identify proper safety equipment and tools and identify and select the proper welding process for a given application.

Schedule

Week 1- 15

Students will use various welding processes during layout and fabrication exercises to mirror real job shop/construction site atmospheres, emphasis being equally placed on safety, layout and fabrication. Group projects as well as individual projects are required.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 2435
Title	ADVANCED LAYOUT AND FABRICATION

Description

An advanced course in layout and fabrication. Includes production and fabrication of layout, tools, and processes. Emphasis on application of fabrication and layout skills..

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

Apply appropriate techniques of fabrication.

2. Design welding projects.

Schedule

Week 1- 13
Students will use various types of layout and fabrication exercises to mirror real job shop/construction site atmospheres, both on paper and hands on with emphasis being on all types of pipe fitting and fabrication. Group projects as well as individual projects are required and will evaluated with safety being priority.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	565

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 2435
Title	ADVANCED LAYOUT AND FABRICATION

Description

An advanced course in layout and fabrication. Includes production and fabrication of layout, tools, and processes. Emphasis on application of fabrication and layout skills..

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

Apply appropriate techniques of fabrication.

2. Design welding projects.

Schedule

Week 1- 15
Students will use various types of layout and fabrication exercises to mirror real job shop/construction site atmospheres, both on paper and hands on with emphasis being on all types of pipe fitting and fabrication. Group projects as well as individual projects are required and will evaluated with safety being priority.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 2443
Title	Advanced SMAW

Description

Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to make quality welds in the overhead position using various welding techniques.

2. Have the ability to pass the AWS overhead welding test using an E6010 electrode.

Schedule

Week 11-13
Students in this course are utilizing all of the skills learned during the semester in preparation for the AWS Certification test which is taken the following week. Scheduled projects will be fillet/butt weld projects utilizing the SMAW process in the all position.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	550

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 2443
Title	Advanced SMAW

Description

Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to make quality welds in the overhead position using various welding techniques.

2. Have the ability to pass the AWS overhead welding test using an E6010 electrode.

Schedule

Week 11-13
Students in this course are utilizing all of the skills learned during the semester in preparation for the AWS Certification test which is taken the following week. Scheduled projects will be fillet/butt weld projects utilizing the SMAW process in the all position.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 2451
Title	Advanced Gas Tungsten Arc Welding (GTAW)

Description	Advanced topics in GTAW welding, including welding in various positions and directions.v
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Demonstrate proficiency in various welding positions; 2. describe safety rules and equipment used; 3. describe the effects of welding parameters in GTAW; 4. weld various joint designs; 5. diagnose welding problems; 6. perform visual inspection.
Schedule	Week 4-13 Students will practice safe welding concepts while learning the GTAW process in the 1G, 2G,5G, and 6G welding positions. Emphasis will be on the ER70S2 filler metal.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	565

Faculty	John J Plemons
Office	103
Phone	903-782-0385
email	jplemons@parisjc.edu

Course	WLDG 2451
Title	Advanced Gas Tungsten Arc Welding (GTAW)

Description	Advanced topics in GTAW welding, including welding in various positions and directions.v
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Demonstrate proficiency in various welding positions; 2. describe safety rules and equipment used; 3. describe the effects of welding parameters in GTAW; 4. weld various joint designs; 5. diagnose welding problems; 6. perform visual inspection.
Schedule	Week 4-13 Students will practice safe welding concepts while learning the GTAW process in the 1G, 2G,5G, and 6G welding positions. Emphasis will be on the ER70S2 filler metal.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023
Term	Summer
Section	185

Faculty	Matt Siddens
Office	AS119
Phone	903-782-0449
email	msiddens@parisjc.edu

Course	WLDG 2453
Title	Advanced Pipe Welding

Description

dvanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.

Textbooks

No Text book required, class hand outs will be given on an as needed basis

Student Learning Outcomes (SLO)

1. Have the ability to translate ASME and AWS codes.

2. Have the ability to weld pipe in the 2G position using SMAW process.

Schedule

Week 7-9
Skill sets learned in this course will be revisited as needed in the remainder of the semester. Scheduled projects will be S-O-Weld/Butt weld projects on the 5G/6G positions utilizing the GTAW/GMAW/FCAW/SMAW processes.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.

Paris Junior College Syllabus

Year	2022-2023	Faculty	John J Plemons
Term	Summer	Office	103
Section	550	Phone	903-782-0385
		email	jplemons@parisjc.edu

Course	WLDG 2453
Title	Advanced Pipe Welding

Description	dvanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.
Textbooks	No Text book required, class hand outs will be given on an as needed basis
Student Learning Outcomes (SLO)	1. Have the ability to translate ASME and AWS codes. 2. Have the ability to weld pipe in the 2G position using SMAW process.
Schedule	Week 7-9 Skill sets learned in this course will be revisited as needed in the remainder of the semester. Scheduled projects will be S-O-Weld/Butt weld projects on the 5G/6G positions utilizing the GTAW/GMAW/FCAW/SMAW processes.

Evaluation methods	All projects, tests (written/hands on), and daily attendance grades are averaged on an equal part basis for the semester grade.