

# **SAMUEL CLEMENS HIGH SCHOOL**



**2021 Spring Syllabus**  
Aerospace Science  
Leadership  
Wellness

# SYLLABUS

Spring 2021

**COURSE NAME:** Air Force Junior ROTC (JROTC)

**CREDIT HOURS:** One Elective Credit Hour

*(PE for AS 100/General Elective for AS 200, 300, 400)*

**INSTRUCTORS:** *Senior Aerospace Science Instructor:*

Lt. Colonel Eric R. Bass, USAF (Ret)

*Aerospace Science Instructor:*

CMSgt Jeffrey M. Gideon, USAF (Ret)

*Aerospace Science Instructor:*

SMSgt Catherine L. Butler, USAF (Ret)

*Instructors are located in the room R105; standard hours are 7:30 a.m. – 5:30 p.m.*

## REQUIRED TEXT:

### *Aerospace:*

AS 100: Milestones in Aviation History (2016)

AS 200: The Science of Flight: Gateway to New Horizons (2012)

AS 300: An Introduction to Global Awareness (2010)

AS 400: Management of the Cadet Corps (No Textbook)

### *Leadership Education:*

TX-82<sup>ND</sup> CADET GUIDE FOR 2019-2020

LE 100: Leadership Education 100 (2015)

LE 200: Communication, Awareness, and Leadership (2017)

LE 300: Life Skills and Career Opportunities (2013)

LE 400: Fundamentals of Management (2018)

LE 100, 200, 300, 400: Drill and Ceremonies

## COURSE DESCRIPTION:

AFJROTC is a three- or four-year program for high school students. The fourth year is available in schools that have ninth through twelfth grade. The curriculum includes Aerospace Science (AS), Leadership Education (LE) and Wellness. All students will be given credit towards graduation for successful completion of the AFJROTC program per the Air Force School Agreement. Each academic course consists of an AS component (40%), an LE component (40%), a Wellness component (20%), except in Aviation Honors Ground School classes, and stand-alone drill courses. The chapters and lessons for each week are listed in the “Course Flow” portion of the syllabus.

### Aerospace Science (AS)

AS acquaints students with the elements of aerospace, aerospace environment, and cultural awareness. It introduces them to the principles of aircraft flight and navigation, the history of aviation, development of air power, contemporary aviation, and study of world affairs, regional studies. AS IV is the fourth year

**cadet corps which gives these cadets the opportunity to plan and manage cadet corps activities throughout the school year.**

**AS100—Milestones In Aviation History:** This is the recommended first AS course for all new cadets. It is an aviation history course focusing on the development of flight throughout the centuries. It starts with ancient civilizations and flight, then progresses through time to future developments in aerospace, with an introduction into cyber technologies. The intent of this textbook is to bring alive the significant discoveries in flight a reality. This book tells the story of why we are so proud of our Air Force heritage—laying the foundation for future Air Force JROTC aerospace science courses. Throughout the course 21st century learning is adopted with readings, video clips, hands-on learner centered activities, and chapter project-based learning opportunities.

**The Course Outcomes are:**

1. Describe historical facts and impacts of the early attempts of heavier-than-air flight.
2. Analyze the impact World War I aviation had on commercial aviation.
3. Examine the role aerial bombing had on the outcome of World War II.
4. Investigate the impact commercial jet aviation has had on US travel.
5. Analyze the lessons learned from global use of US airpower.
6. Evaluate developing technology that will affect the US Air Force of the future.

**AS 200--The Science of Flight:** A Gateway to New Horizons is an introductory course and customized textbook that focuses on how airplanes fly, how weather conditions affect flight, flight and the human body, and flight navigation. The course is designed to complement materials taught in math, physics, and other science related courses and is aligned with the National Science Education Standards, the Math Standards and Expectations, and ISTE National Educational Technology Standards for Students.

**The course objectives are:**

1. Analyze the elements of flight
2. Evaluate how atmospheric conditions affect flight
3. Evaluate how flight affects the human body
4. Analyze flight navigation and the purpose of aerial navigation.

**AS 300—Cultural Studies: An Introduction to Global Awareness:** This is a customized course about the world's cultures. The course is specifically created for the US Army, Marine Corps, Navy, and Air Force Junior ROTC programs. It introduces students to the world's cultures through the study of world affairs, regional studies, and cultural awareness. The course delves into history, geography, religions, languages, culture, political systems, economics, social issues, environmental concerns, and human rights. It looks at major events and significant figures that have shaped each region. Throughout the course, there are readings, video segments, hands-on activities, other optional activities, technology enrichment, and assessments to guide in the reinforcement of the materials.

Twenty First Century Skills as defined by the Partnership for 21st Century Skills are integrated into the course. These include learning and innovation (thinking) skills—critical thinking and problem solving, creativity and innovation, and communication and collaboration; information, media and technology skills—information literacy, media literacy, and ICT (information, communications and technology) literacy; and life and career skills—flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility. Again, the content of this course is correlated using the National Geography and Social Studies Standards. These include the National Geography Standards - *Geography for Life*; and the *National Council for the Social Studies* (NCSS) standards. In addition, the technology enrichment activities are correlated to the *National Education Technology Standards for Students* (NETS•S).

**The course objectives are:**

1. Know how historical, geographic, religious, and ethnic factors have shaped the six major regions of the world.
2. Know how economic, political, and social factors impact cultures.
3. Know how environmental resources influence global economic development.
4. Know how population density, famine, war, and immigration influence the world.
5. Know how the economic systems of communism and capitalism have shaped the six major regions of the world.
6. Comprehend how cultural perspectives of time, space, context, authority, interpersonal relationships, and orientation to community affect interactions among people.

**AS 400—Management of the Cadet Corps:** The cadets manage the entire corps during their fourth year in the Air Force Junior ROTC program. This hands-on experience affords the cadets the opportunity to put the theories of previous leadership courses into practice. All the planning, organizing, coordinating, directing, controlling, and decision-making will be done by the cadets. They will put into practice their communication, decision-making, personal-interaction, managerial, and organizational skills.

**The course objectives are:**

1. Apply the theories and techniques learned in previous leadership courses.
2. Know how to develop leadership and management competency through participation.
3. Apply strengthened organizational skills through active incorporation.
4. Know how to develop confidence in ability by exercising decision-making skills.
5. Apply Air Force standards, discipline, and conduct.

**Leadership Education (LE)**

**LE is the portion of the AFJROTC curriculum that develops leadership skills and acquaints students with the practical application of life skills. The leadership education curriculum emphasizes discipline, responsibility, leadership, followership, citizenship, customs and courtesies, cadet corps activities, study habits, time management, communication skills, career opportunities, life skills, financial literacy, management skills, and drill and ceremonies.**

**LE 100: Traditions, Wellness, and Foundations of Citizenship**

LE 100 is the component of JROTC leadership education. It is intended for students who are entering the AFJROTC program and beginning their high school studies. It will introduce cadets to history, organization, mission, traditions, goals, and objectives of JROTC for all services. It introduces key military customs and courtesies, how to project a positive attitude, and exam the principles of ethical and moral behavior. It provides strategies for effective note taking and study skills for academic success. Lessons will cover how to be emotionally, mentally, and physically healthy. Avoiding and preventing violence in today's society will also be covered. How to recognize types of bullying and how to advocate for prevention of this type of behavior. It will cover healthy living, physical fitness, and how to make safe, drug-free, and responsible decisions. This textbook will also examine the negative effects of air and water pollution, and how to help keep the environment safe. Cadets will be introduced to civics and our national government, including a historical understanding of the American flag and other important national symbols. The final chapter will also cover how the US Constitution protects our rights and freedoms as American citizens.

**Course Outcomes**

1. Analyze the heritage, organization, and tradition of service programs.
2. Analyze the benefits of positive personal behavior.
3. Evaluate healthy living through physical activity and good nutrition.
4. Apply safe, drug-free decisions.
5. Analyze the importance of citizenship in the United States.

## **LE 200: Communication, Awareness, and Leadership**

*Leadership Education 200: Communication, Awareness, and Leadership, Second Edition*, is a customized course designed to improve communication, enhance awareness of self and others, and provide fundamentals of leadership and followership. The course focuses on the Air Force Junior Reserve Officer Training Corps (AFJROTC) mission to “develop citizens of character dedicated to serving their nation and community.” Woven throughout is the underlying theme of developing personal integrity. The course also emphasizes leadership and values such as service and excellence. This update incorporates 21st century teaching, learning, and skills of critical thinking, communication, collaboration, and creativity.

Each lesson includes a “Quick Write” reading and writing activity related to the lesson; a “Learn About” that tells students what they will learn from the lesson; a list of vocabulary words in the lesson; “Talking Points” that highlight specific and interesting facts; and many stories, biographies, and profiles. The lessons close with a “Checkpoints Lesson Review” that will allow students to review what they have learned. At the end of the “Checkpoints” is an “Applying Your Learning” section with a discussion question that will give students a chance to use what they have learned and provides another way to reinforce their understanding of the lesson’s content. The text has eight chapters; each chapter contains three lessons.

### **Course Outcomes**

1. Analyze the key factors in communication and critical thinking.
2. Apply the elements of effective writing and public speaking.
3. Analyze the importance of attitude in daily life.
4. Evaluate the ways in which personality and behavior affect relationships with others.
5. Analyze the foundation for an effective team.
6. Apply effective problem-solving and consensus-building methods.
7. Analyze the Air Force leadership model.
8. Evaluate effective leadership and followership.

## **LE 300: Life Skills and Career Opportunities**

*Life Skills and Career Opportunities, Second Edition* provides an essential component of leadership education for today’s high school students. This course is designed to prepare students for life after high school in the high-tech, globally oriented, and diverse workplace of the 21st century. Students will learn how to become a more confident financial planner and to save, invest, and spend money wisely, as well as how to avoid the credit trap. They will learn about real-life issues such as understanding contracts, leases, warranties, legal notices, personal bills, practical and money-saving strategies for grocery shopping, apartment selection, and life with roommates. The Holland Interest Inventory and other self-assessments will help them to reveal their attitudes, aptitudes, and personal skills. This self-understanding will allow them to explore career paths and understand requirements that they will need to be successful at work and in life. To help students increase their potential for success through education, they will learn how to select a school that is right for them; how to apply for admission to a vocational or technical school, community college, or college/university; and how to succeed in these learning environments. Information is provided on how to conduct the job search for students who wish to enter the workforce right after high school or after additional education and training. They will learn how to prepare a winning résumé, and how to develop effective interviewing skills.

Students will become more skilled at using the Internet for career research and learn how to network safely using social media. The text also provides information on working for the federal government to include careers in the military, aerospace industry, and public service. Finally, students will consider the most important elements of life skills for all Americans: civic responsibilities, such as volunteering, registering to vote, jury duty, and draft registration.

### **Course Outcomes**

1. Analyze the elements of successful financial management skills.
2. Create a plan to safeguard personal resources.
3. Analyze the different ways of pursuing a career path.

4. Analyze the requirements for applying to a college or university.
5. Analyze positive and negative impact of college life in meeting career goals.
6. Evaluate the essential process for successfully pursuing desired career or job.
7. Evaluate the benefits of working for the Federal Government.
8. Create a plan for successful career development.

#### **LE 400: Fundamentals of Management**

Fundamentals of Management is a customized course designed for the fourth-year Junior Reserve Officer Training Corps (JROTC) cadet. Its aim is to provide an introduction to basic management concepts and skills, especially as they relate to managing in a JROTC unit. Along the way cadets will learn some of the history of management studies and encounter elements of more-recent management research.

#### **Course Outcomes:**

1. Analyze the key factors in communication and critical thinking.
2. Apply the elements of effective writing and public speaking.
3. Analyze the importance of attitude in daily life.
4. Evaluate the ways in which personality and behavior affect relationships with others.
5. Analyze the foundation for an effective team.
6. Apply effective problem-solving and consensus-building methods.
7. Analyze the Air Force leadership model.
8. Evaluate effective leadership and followership.

#### **LE 100, 200, 300, 400: Drill and Ceremonies:**

The Drill and Ceremonies manual is used to teach the Drill Curriculum (Cumulative) course by providing an in-depth introduction to drill and ceremonies. The course concentrates on the elements of military drill, and describes individual and group precision movements, procedures for saluting, drill, ceremonies, reviews, parades, and development of the command voice. Cadets are provided detailed instruction on ceremonial performances and protocol for civilian and military events and have the opportunity to personally learn drill. Though each class will follow an established lesson plan, most of the work is to be hands-on. Instructors are provided AFM

36-2203 to teach the Drill and Ceremonies course and may download the latest version of AFM 36-2203 from Air Force e-pubs. In addition, instructors may order the Army Field Manual 3-21.5 and the Interservice Cross-Index Drill Manual to supplement the teaching of Drill and Ceremonies. There is also a Drill and Ceremonies Instructional DVD available to aid you in teaching drill.

#### **The course objectives are:**

1. Know the importance of drill and ceremonies.
2. Know basic commands and characteristics of the command voice.
3. Apply and execute the concepts and principles of basic drill positions and movements.
4. Know when and how to salute.
5. Apply the principles and procedures of drill movements used with smaller units to the movement of a squadron.
6. Know the function of the group and the wing.
7. Know how groups and wings are formed.
8. Know the purpose and definition of ceremonies and parades.
  - a) Know the importance, purpose, and meaning of military drill terms.
  - b) Know the significance of the United States Flag.
  - c) Know the position and movements required of each individual in forming elements, flights and squadrons and the commands to execute those positions and movement.
  - d) Know about the drill of the flight and squadron.
  - e) Know the key factors for a successful drill team.

#### **Wellness Curriculum**

Wellness is an official and integral part of the Air Force Junior ROTC program. It consists of two exercise programs focused upon individual base line improvements with the goal of achieving a national standard as calculated by age and gender. The Wellness curriculum is instrumental in developing citizens of character dedicated to serving our nation and communities. The program is provided as a tool to help instructors develop individualized training programs for the cadets. Cadets will be given the opportunity to into practice the wellness concepts that are taught in Leadership Education 100. Instructors are free to include other activities cadets enjoy such as team sports in order to keep the Wellness Program fun and motivating. The Wellness Program also provides a list of individual and district/state goals. Instructors should utilize fitness programs that best fit the requirements within their district/county/state. HQ AFJROTC offers suggested fitness programs that may meet these requirements that will allow for tracking through WINGS. Cadet fitness improvement should also be rewarded, either by earning the Wellness Ribbon, Presidential Fitness Challenge certificate, or both.

**The course objective for the Wellness Program is to:**

Motivate AFJROTC cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives.

The goals of the Wellness program are to:

1. Create an individualized training program based on national standards by age and gender.
2. Identify areas of improvements for each cadets and provide guidance for improvement.
3. Incorporate a physical training program to reach fitness goals.
4. Build teamwork, emphasize good sportsmanship, and promote healthy competition.

AFJROTC Wellness Program Exercises:

This program is comprised of participating in team sport activities and performing various physical exercises. The exercises help develop all muscle groups and provide sufficient anaerobic and aerobic intensity. They require no equipment and use only body weight and common objects (e.g. chairs).

**Some of the exercises include:**

- |                               |                        |
|-------------------------------|------------------------|
| V-Sit Reach                   | Burpees                |
| Lunges                        | Extended Side Push-ups |
| Arm Extended Lunges           | Side Lateral Jumps     |
| Feet Elevated Push-ups        | Flutter Kicks          |
| Mountain Climbers             | One-Mile Run           |
| Planks                        | Push-ups               |
| Left Arm and Right Arm Planks | Mountain Climbers      |
| Sit-Ups                       |                        |

**A typical exercise class may go as follows:**

- Warm-up/Stretch
- Pick 5 or more exercises to perform depending on time
- Ensure proper form and technique

**Leadership Education Electives**

**Elective Objectives**

**Elective 1: Unlocking Your Potential (UYP)**

1. Define potential.
2. Explain the difference between the “I can’t” attitude and the “I haven’t learned yet” attitude.

3. Discuss the statement: “It is not what I have, it’s what I do with what I have that determines my performance.”
4. Identify areas of their lives where they believe they are allowing “being good” to get in the way of “being great.”

### **Elective 2: National Endowment for Financial Education (NEFE)**

- 1 Control personal credit and debt [Borrowing]
- 2 Boost personal earning capability [Earnings]
- 3 Put personal assets to work to build personal wealth [Saving, Investing]
4. Use financial services in sensible and wary manner [Financial Services]
- 5 Protect personal property and financial resources [Insurance]
- 6 Set SMART financial goals
- 7 Use a decision making process to weigh the options and consequences when making spending decisions
- 8 Analyze how personal values impact spending, saving, and planning behaviors
- 9 Utilize resources that are credible and timely
- 10 Manage personal financial records

### **Elective 3: Congressional Medal of Honor Foundation (MOH)**

*Medal of Honor: Lessons of Personal Bravery and Self-Sacrifice* is a resource designed by teachers to provide students with opportunities to explore the important concepts of courage, commitment, sacrifice, patriotism, integrity, and citizenship and how these values can be exemplified in daily life.

### **Elective 4: Pennsylvania Veterans Museum (PVM)**

The museum is dedicated to preserving, protecting, and promoting the legacy and dignity of all veterans of the U.S. military. Their focus is to tell the stories of America’s conflicts through the eyes of those who served in them.

### **Elective 5: Veterans National Education Program (VNEP)**

This organization provides supplemental educational materials *free of charge* teaching U.S. modern history through the understanding of the humanistic and cultural aspects of America’s military conflicts and how they have influenced the fabric of our global society.

### **Elective 6: Cadet Guide/Handbook**

1. Uniform wear, personal appearance and grooming requirements
2. Post-graduation benefits, Kitty Hawk Air Society, Drill Team, Color Guard, CIA trips, marksmanship, rocketry, and annual community service projects, etc.
3. Conduct standards, classroom procedures, saluting
4. Promotion opportunities, including unit-specific promotion and demotion procedures.
5. Corps operational and functional areas such as Logistics, Personnel, Support, Public Affairs.
6. Unit, local, national and HQ-awards/ribbon procedures
7. Reserve Cadet participation and requirements such as uniform wear, community service events.

### **UNIFORM DAY:**

The uniform of the day will be posted in the classrooms on the announcement board for the next week. Any changes will be announced in class. All uniform items for uniform day are outlined in the AFJROTC Cadet Guide, as well as uniform day rules. Students **WILL** wear the Air Force JROTC uniform weekly (Wednesday) and the PT uniform on Friday. Senior cadets are authorized and required to wear the Airman Battle Uniforms (ABUs) on Thursday of each week.

**AFJROTC GRADING PROCEDURES:**

Cadets receive weekly grades noted on the TxGradebook website from the following: Short workbook/end of text chapter assignments, uniform inspections (UNIFORM), video notes, Group Leadership Problems, (GLPs) drill and ceremonies (DRILL) or DRILL/WB) practice, dress and appearance inspections, physical fitness (PT), etc. Formative grades include dress and appearance and physical fitness. Summative grades include quizzes, assignments, classwork, etc. Finally, 20% of the overall semester grade is the end of semester exam.

**AFJROTC GRADING GUIDELINES**

Grades 9-12th		
Category	Percentage	Number of Grades
Summative 50%	50%	3*
- Tests/Quizzes/In-class assignments - Projects		
Formative 50%	50%	10*
- Uniform/Dress & Appearance Inspections - PT Gear Inspections & PT Participation		
Total		13*

\*Denotes minimum number of grades per grading period. Teachers/campuses have discretion to have additional grades in either category.

**Grade Percentage Required:**

A 90% and above

B 89% - 80%

C 79% - 70%

D 69% - 60%

F 59% and below

*NOTE: AFJROTC does require self-discipline, learning responsibility and passing grades in all classes to participate in our activities. AFJROTC is an elective. It is not required for graduation and it is not for everyone. Virtually all students enjoy AFJROTC, but that is not enough to remain in the program. In order to remain in the program, the cadets must be passing, be eligible for promotion, and have a corps job and participate in extracurricular activities. Cadets who don't maintain passing grades with JROTC will be recommended to consider a class change as our academics and expectations in drill and ceremonies will become even more challenging.*

# SPRING 2020 AFJROTC CLASS FLOW (AS, LE, WELLNESS)

1<sup>st</sup> Nine Weeks – Start 5 Jan 21/End 5 Mar 21

## Weeks 1, 2, 3 and 4

LE 100 -- LE 100-Personal Behavior (Ch-2, Lsn-1, 2, 3, 4, 5), Be Health Smart (Ch-3, Lsn-1-5)

LE 200 -- LE II-Understanding Your Attitude (Ch-3, Lsn-1, 2, 3), Understanding Your Actions (Ch-4, Lsn-1, 2, 3), Developing Vision and Teams (Ch-5, Lsn 1, 2, 3)

LE 300 --LE 300-Aiming Towards a College Degree (Ch-4, Lsn-1, 2, 3, 4), Charting Your Course (Ch-5, Lsn-1, 2, 3)

LE 400 --LE 400-Organizing—Managing Time and Change (Ch-5, Lsn-1, 2), Leading—Managing Individual and Group Behavior (Ch-6, Lsn 1, 2, 3)

LE 100, 200, 300, 400 -- Uniform Inspection, Drill & Ceremonies, Wellness/PT

## Weeks 5, 6 and 7

AS 100 -- AS 100- Commercial and General Aviation Take Off (Ch-4, Lsn 3,4)

AS 200 – AS 200-Flight and the Human Body (Ch-3, Lsn-1, 2)

AS 300 – AS 220-Russia and the Former Soviet Republics (Ch-4, Lsn 1-5), Latin America (Ch-5, Lsn 1-5)

AS 400– Management of the Cadet Corps

LE 100, 200, 300, 400 -- Uniform Inspection, Drill & Ceremonies, Wellness/PT

## Weeks 8, 9 and 10

AS 100 -- AS 100- The U.S. Air Force is Born (Ch-5, Lsn 1-5)

AS 200 – AS 200-Flying From Here to There (Ch-4, Lsn-1)

AS 300 – AS 220-Europe (Ch-6, Lsn 1-2)

AS 400– Management of the Cadet Corps

LE 100, 200, 300, 400 -- Uniform Inspection, Drill & Ceremonies, Wellness/PT

2<sup>nd</sup> Nine Weeks – Start 15 Mar 21/End 27 May 21

## Weeks 1, 2, and 3

LE 100 -- LE 100-Making Safe, Drug-Free Decisions (Ch-4, Lsn-1, 2, 3, 4), The Foundations of United States Citizenship (Ch-5, Lsn-1, 2, 3, 4,5)

LE 200 -- LE II-Solving Conflicts and Problems (Ch-6, Lsn-1, 2, 3), A Leadership Model (Ch-7, Lsn-1, 2, 3), Adaptive Leadership (Ch-8, Lsn-1, 2, 3)

LE 300 – LE 300-Appling For Jobs (Ch-6, Lsn 1, 2, 3), Working for the Federal Government (Ch-7, Lsn 1, 2, 3), Developing Your Career Skills (Ch-8, Lsn 1, 2, 3)

LE 400 --LE 400-Understanding Work Teams (Ch-7, Lsn-1, 2, 3), Interpersonal Skills (Ch-8, Lsn-1, 2, 3)

LE 100, 200, 300, 400 -- Uniform Inspection, Drill & Ceremonies, Wellness/PT

## Weeks 4, 5 and 6

AS 100 -- AS 100- The US Air Force Is Born (Ch-5, Lsn 1-5)

AS 200 – AS 200-Flying From Here to There (Ch-4, Lsn-2, 3)

AS 300 – AS 220-Europe (Ch-6, Lsn 3-4)

AS 400– Management of the Cadet Corps

LE 100, 200, 300, 400 -- Uniform Inspection, Drill & Ceremonies, Wellness/PT

## Weeks 7, 8, 9

AS 100 -- AS 100- The Modern Air Force (Ch-6, Lsn 1-3)

AS 200 – AS 200-Flying From Here to There (Ch-4, Lsn-4, 5)

AS 300 – AS 220-Europe (Ch-6, Lsn 5-6)

AS 400– Management of the Cadet Corps

LE 100, 200, 300, 400 -- Uniform Inspection, Drill & Ceremonies, Wellness/PT

AS 100, 200, 300, 400 – Final Exam Review and Final Exams