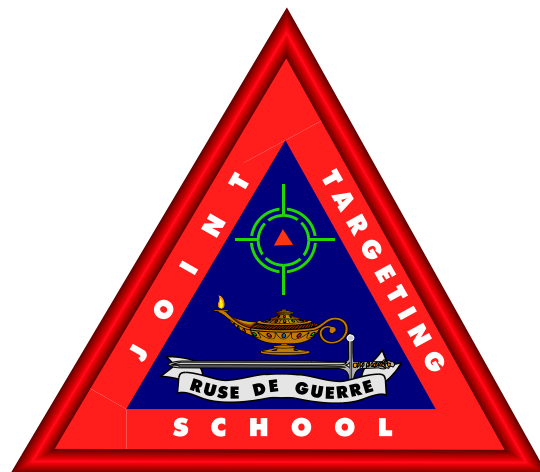


# Joint Targeting Weaponneering Applications Course Syllabus

2020



Joint Targeting School

Joint Staff, J7

**The Joint Staff  
Joint Targeting School  
2088 Regulus Avenue  
Virginia Beach, VA 23461-2099**

**Joint Training Course  
Joint Targeting Weaponeeing Applications Course**

**INTRODUCTION**

This syllabus is directive in nature and prescribes the overall training strategy and amount of instruction required for a student with the entry prerequisites to attain course goals and graduate. Within the syllabus and other directive constraints, the amount and level of training devoted to mission elements, events, subjects or phases should be adjusted as required to meet individual student needs. This syllabus is designed to introduce and familiarize students with the basic principles of weaponeeing utilizing the Joint Munitions Effectiveness Manual (JMEM) Weaponeeing System (JWS). Students will be introduced to some advanced concepts within JWS, but the focus of the syllabus is at an introductory/intermediate skill level. Additionally, students will learn and practice the basics of weaponeeing air-to-surface and surface-to-surface munitions to achieve desired effects against a variety of target types, including point targets, area targets, linear targets, bridges, buildings, and bunkers. The course syllabus will focus on the most current version of JWS as accredited by the Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) and approved for use by all services.

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Loreta J. Ferguson  
DOD Civilian  
JTS Deputy Director

## Chapter 1 Course Description

1. **Title:** Joint Targeting Weaponeering Applications Course
2. **Joint Qualified Officer (JQO) Certification Date:** 31 January 2020  
Course earns .5 Joint Qualified Officer (JQO) point.
3. **Joint Qualified Officer (JQO) Certification Expiration Date:** 30 January 2023
4. **Course Identifiers**
  - a. **Joint "S" Code:** S360
  - b. **USA CIN:** 303JTS002
  - c. **USAF CIN:** X5OZN14N3 0B5A
  - d. **USMC CIN:** N46P123
  - e. **USN CIN:** S-3A-0006
  - f. **FMS MASL:** P122028
5. **Objective:** Provide operational-level operations and intelligence personnel with a background in weapons employment considerations and weaponeering methods.
6. **Location:** 2088 Regulus Avenue, Virginia Beach, VA 23461-2099.
7. **Duration:** 5 Training Days.
8. **Entry Prerequisites:** Secret clearance. Officer or enlisted intelligence, operations, and planning personnel involved in targeting on Combatant Command or Joint Task Force eligible staff.
9. **Status Upon Graduation:** Graduates are awarded 1.0 Joint Qualification Officer Point.
10. **Academic Training**

	<i>hours</i>
a. <b>Course Prerequisite Training</b>	0.0
b. <b>JTS Instruction (lecture)</b>	17
c. <b>Practical exercises</b>	12.5
d. <b>Out-of-class reading</b>	0.0
e. <b>Guest Lectures/Facility Tours</b>	0.0
f. <b>Academic evaluation</b>	5.5
 <b>Total Approximate Course Hours</b>	 <b>35</b>

## Chapter 2 Course Administration

### Section A - Syllabus Management

1. **Syllabus Interpretation:** This syllabus is directive and must be followed as written.
2. **Syllabus Waiver:** All syllabus waivers must be approved by the JTS Director. In all instances, JTS will strive to maintain course content while not extending training past the scheduled training dates.
3. **Syllabus Review:** JTS conducts syllabus reviews on an annual basis or as directed by the JTS Director. Following syllabus review, the JTS Director approves any syllabus modification.
4. **Syllabus Content.**
  - a. **Updates:** Course managers approve all lesson updates prior to course presentation.
  - b. **Modification:** The JTS Director approves all syllabus modifications and lesson additions prior to course inclusion.
  - c. **Frequency of Review:** JTS reviews syllabus content on an annual basis. JTS executes additional content review when lesson references are updated.

### Section B - Training Management







1. **Course Manager Responsibilities:** The JTS Director designates course managers. The course manager is responsible for monitoring the content of the assigned course. Prior to course start, the course manager approves the course schedule and flow of events.
2. **Instructor Responsibilities.**
  - a. **Lecture:** Instruction will not exceed 60 minutes without a scheduled break. Individual classes may decide to extend instruction past 60 minutes without a break.
  - b. **Practical Exercises:** JTS instructors will be available during practical exercise work. At all times JTS will strive to maintain a student to instructor ratio of no more than 15 to 1.
3. **Course Standards:** For successful course completion, students will be required to complete exam with a minimum score of 80% and practical exercises.
4. **Training Capacity:** JTS course capacity is 30 seats and will not exceed these numbers. During the first day of training, if a student fails to arrive at the course, JTS will open the seat to the standby list. Student quotas are managed based upon service and combatant command needs.
5. **Training Materials:** The following is a list of materials needed to accomplish the Applications course outlined by this syllabus:
  - a. Academic lectures
  - b. Practical exercises
  - c. Joint Munitions Effectiveness Manual (JMEM) Weaponizing Software (JWS) (current version)
  - d. Exam
6. **Unsatisfactory Performance**
  - a. **Exam Failure:** If a student fails to achieve at least an 80% on an exam, they will be remediated on the exam material and be allowed to re-take the exam. Students are given one re-attempt for exam scores below 80%. Failure of a subsequent exam will result in failure of the course. Students are authorized one re-attempt for the course.
  - b. **Unexcused Absences:** Two unexcused absences will result in removal from the course.
  - c. **Security Violations:** All Security violations will be dealt with on an individual basis and may result in removal from the course.
  - d. **Dismissal from Course:** In the case of a student's dismissal from the course, the student's commanding officer at his or her present command will be notified through formal correspondence. The student will

not receive a certificate of completion and JTS will not award the individual Joint Qualification Officer Points nor count the course completed for the Course Identification Number of the respective services.

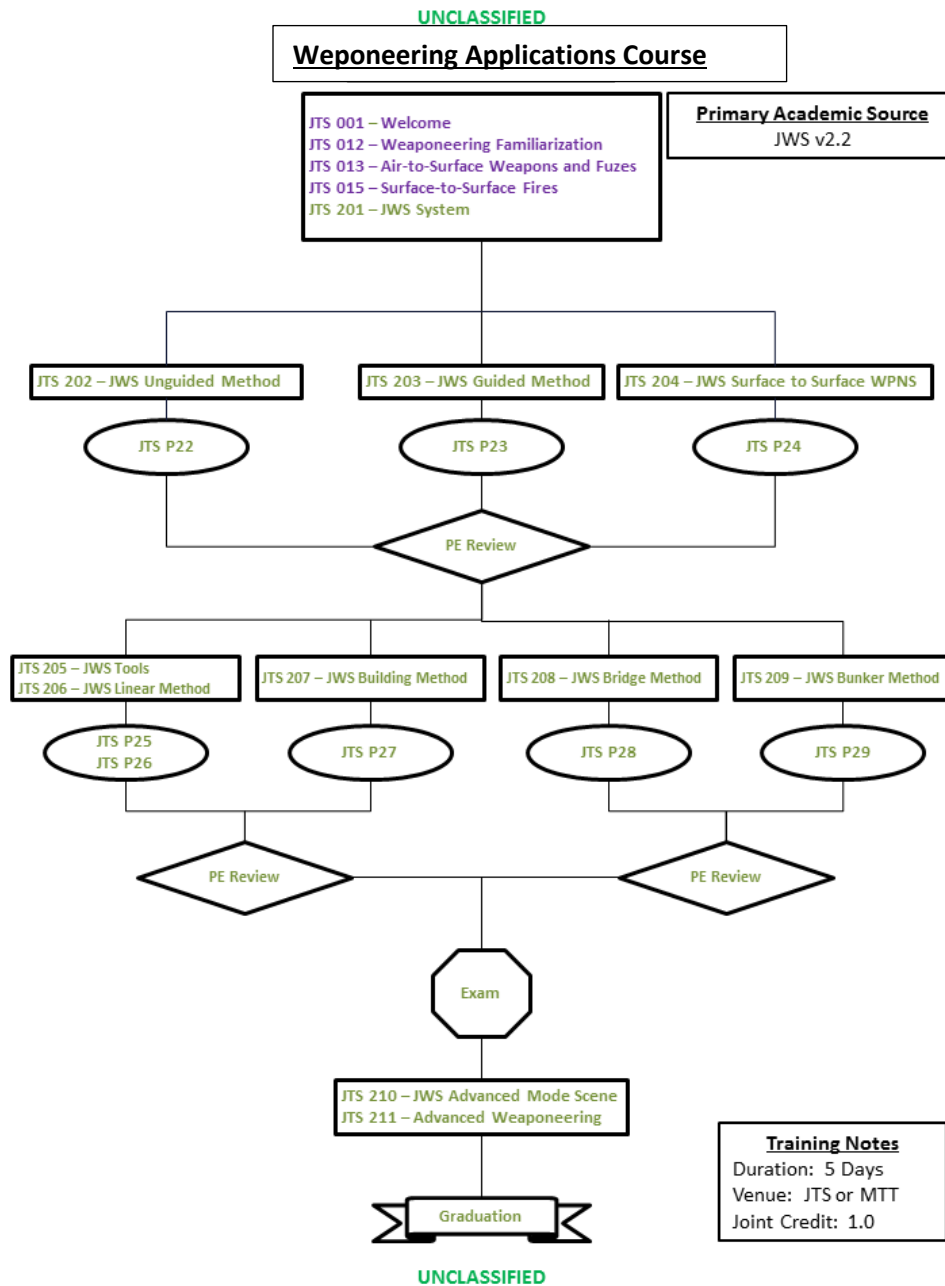
# Chapter 3 Course Flow

## Section A – Course legends

Course Language Legend
Staff: Purple
CDE: Orange
APPS: Green
BDA: Blue
0xx: Staff Course Academics
1xx: CDE Course Academics
2xx: APPs Course Academics
3xx: BDA Course Academics
P0x: Staff PE
P1x: CDE PE
P2x: APPs PE
P3x: BDA PE
x99: Course Exam (Ex. 099=Staff)
X88: Course Critique (ex. 188=CDE)

Course Icon Legend
 - Course Prerequisite
 - Instruction
 - Practical
 - Exam
 - Instructor Debrief
 - Graduation

## Section B – Course Map



## Chapter 4

### Lesson Descriptions

<u>Lesson ID</u>	<u>Lesson Name</u>	<u>Duration</u>
<b>JTS 000</b>	<b>Welcome</b>	<b>0.5</b>

*Objectives:* Introduce JTS instructors and outline course expectations. Identify a class leader and facilitate student introductions.

<b>JTS 012</b>	<b>Weaponneering Familiarization</b>	<b>1.5</b>
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*Objectives:* Students will be able to describe weaponneering and the principles that support the weaponneering process. Students will be able to explain how probabilities relate to weaponneering results, describe how weaponneering estimates support targeting, and explain the process for making weaponneering estimates.

<b>JTS 013</b>	<b>Air-to-Surface Weapons and Fuzes</b>	<b>1.0</b>
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*Objectives:* Students will be able to identify proper warhead, weapon, and fuze terminology. Students will have a basic understanding of the various air-to-surface weapons available for targeting.

<b>JTS 015</b>	<b>Surface-to-Surface Fires</b>	<b>1.0</b>
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*Objectives:* Students will be able to identify current capabilities and limitations of the surface-to-surface fires assets available to an operational-level planner.

<b>JTS 201</b>	<b>JWS Systems</b>	<b>1.5</b>
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*Objectives:* Students will be able to properly navigate and utilize the Joint Technical Coordinating Group for Munitions Effectiveness (JTCEG/ME) Joint Munitions Effectiveness Manual (JMEM) Weaponneering System (JWS).

<b>JTS 205</b>	<b>JWS Tools</b>	<b>1.0</b>
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*Objectives:* Students will be able to properly navigate and utilize various tools located within JWS.

<b>JTS 202</b>	<b>JWS Unguided Method</b>	<b>1.0</b>
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*Objectives:* Students will be able to weaponneer a target using the JWS air-to-surface unguided weapon method.

<b>JTS 203</b>	<b>JWS Guided Method</b>	<b>1.0</b>
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*Objectives:* Students will be able to weaponneer a target using the JWS air-to-surface guided weapon method.

<b>JTS 204</b>	<b>JWS Surface to Surface Method</b>	<b>1.0</b>
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*Objectives:* Students will be able to weaponeer a target using the JWS surface-to-surface method and utilize posture sequencing for personnel.

**JTS 206            JWS Linear Target Method            1.0**

*Objectives:* Students will be able to weaponeer a target using the JWS linear target method, Hard Target Reliability Tool (HTRT), Precision Munition Planning Tool (PMPT), and the Penetration and Cratering (PC) Effects Tool.

**JTS 208            JWS Bridge Method            1.0**

*Objectives:* Students will be able to weaponeer a bridge using the JWS Bridge Analysis System (BAS).

**JTS 207            JWS Building Method            1.5**

*Objectives:* Students will be able to weaponeer a building using the JWS Fast Integrated Structural Tool (FIST) with air-to-surface and surface-to-surface munitions.

**JTS 209            JWS Hard Target Method            1.0**

*Objectives:* Students will be able to weaponeer a hardened target using the JWS Fast Integrated Structural Tool (FIST) and the Penetration and Cratering (PC) Effects tool.

**JTS 210            JWS Advance Scene Mode            1.5**

*Objectives:* Students will apply weaponeering knowledge of all the weaponeering methods using JWS advance scene mode features.

**JTS 211            JWS Advanced Weaponeering Topics            1.5**

*Objectives:* Students will gain familiarity with additional features, capabilities, and short-comings in JWS, including how to surrogate a weapon or target, reverse weaponeering, target complexes, explosive equivalence, and weaponeering against a ship.



## Chapter 5 Practical Exercise Descriptions

<u>Lesson ID</u>	<u>Lesson Name</u>	<u>Duration</u>
<b>JTS P22</b>	<b>JWS Unguided Practical Exercises 1 through 4</b>	<b>2</b>
<i>Objectives:</i> Develop proficiency in the JWS unguided method. Students will practice building attacks against targets using unguided munitions.		
<b>JTS P23</b>	<b>JWS Guided Practical Exercises 1 through 4</b>	<b>2</b>
<i>Objectives:</i> Develop proficiency in the JWS guided method. Students will practice building attacks against targets using guided munitions.		
<b>JTS P24</b>	<b>JWS Surface-to-Surface Practical Exercises 1 through 3</b>	<b>1.5</b>
<i>Objectives:</i> Develop proficiency in the JWS surface-to-surface method. Students will practice building attacks against targets using surface-to-surface munitions.		
<b>JTS P25</b>	<b>JWS Linear Targets Practical Exercises 1 through 2</b>	<b>0.5</b>
<i>Objectives:</i> Develop proficiency in utilizing JWS Tools. Students will practice using Delivery Accuracy (DA) Lookup, Precision Munition Planning Tool (PMPT), Hard Target Reliability Tool (HTRT), and Penetration and Cratering (PC) Effects. Instructors will review student results with class.		
<b>JTS P26</b>	<b>JWS Linear Targets Practical Exercises 1 through 2</b>	<b>1.0</b>
<i>Objectives:</i> Develop proficiency in the JWS linear target method. Students will practice building attacks against runways using air-to-surface munitions.		
<b>JTS P28</b>	<b>JWS Bridge Targets Practical Exercises 1 through 2</b>	<b>1.5</b>
<i>Objectives:</i> Develop proficiency in the JWS bridge target method. Students will practice building attacks against bridges using air-to-surface munitions.		
<b>JTS P27</b>	<b>JWS Building Targets Practical Exercises 1 through 2</b>	<b>2</b>
<i>Objectives:</i> Develop proficiency in the JWS building target method. Students will practice building attacks against buildings using air-to-surface and surface-to-surface munitions.		
<b>JTS P29</b>	<b>JWS Hard Targets Practical Exercises 1 through 2</b>	<b>2</b>
<i>Objectives:</i> Develop proficiency in the JWS hard target method. Students will practice building attacks against bunkers using air-to-surface munitions.		

## Chapter 6

### Student Evaluations

<u>Event ID</u>	<u>Name</u>	<u>Duration</u>
<b>JTS P291</b>	<b>Practical Exercise Review</b>	<b>1.5</b>

Objectives: Students will demonstrate an understanding of how to properly weaponeer using the unguided, guided, and surface-to-surface methods.

<b>JTS P292</b>	<b>Practical Exercise Review</b>	<b>1.5</b>
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Objectives: Students will demonstrate an understanding of how to properly weaponeer using the linear and bridge methods

<b>JTS P293</b>	<b>Practical Exercise Review</b>	<b>1.5</b>
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Objectives: Students will demonstrate an understanding of how to properly weaponeer using the building and hard target methods

<b>JTS 299</b>	<b>Exam</b>	<b>1.0</b>
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Objectives: Students will demonstrate an understanding of weapons employment considerations and weaponeering methods

## Chapter 7

### Course References

1. Section A: Joint Publications
  - a. Access: <https://jdeis.js.mil/jdeis/index.jsp?pindex=2>
  - b. Reference
    - JP 3-60, Joint Targeting
    - JP 3-03, Joint Interdiction
    - JP 3-09, Joint Fire Support
    - JP 3-09.3, Close Air Support
    - JP 3-30, Joint Air Operations
    - JP 3-31, Joint Land Operations
  
2. Section D: Others
  - a. Reference
    - JMEM/AS Weaponneering Guide
    - JMEM Weaponneering Software