# MASSACHUSETTS MARITIME ACADEMY DEPARTMENT OF MARINE TRANSPORTATION 

DECK License SEMINAR

Course No. MT-4252

Preparation for the U.S. Coast Guard Merchant Marine License Examinations Officer-in-Charge of the Navigational Watch (OICNW) / Third Mate-Oceans Any Grt


CAPTAIN JOSEPH S. MURPHY, II
Professor
Department of Marine Transportation
Massachusetts Maritime Academy

"If you don't know where you are going, you aren't likely to get there."

| Classroom: | Hurley Library Bldg. 2 ${ }^{\text {nd }}$ Floor |
| :--- | :--- |
| Office No.: | Bresnahan Building, Office 304C |
| Telephone Ext.: | $(508)$ 830-5021 |
| E-mail: | jmurphy@maritime.edu |

FROM: CAPT. J. S. Murphy, II - Deck License Coordinator
TO: Deck License Candidates

## SUBJECT: USCG MERCHANT MARINE LICENSE REGULATIONS

The United States Coast Guard has promulgated regulations for the licensing of Deck Officers in the U.S. Merchant Marine. In order to qualify for licensure every candidate for all grades of deck license or endorsement must meet the following criteria:

1. Obtain the necessary sea experience and training
2. Meet prescribed standards (physical, citizenship, character, etc.)
3. Make application for licensure and prove 1 and 2 above.
4. Pass the prescribed professional examination

Pursuant to and in conjunction with the U.S. Coast Guard regulations every deck license candidate at the Massachusetts Maritime Academy must satisfy the following prerequisite requirements prior to the Third Mate license examination:

1. Sea Term 4 (MT-4371)
2. Satisfy the requirements for the issuance of an approved Sea Time Certificate.
3. Meet Academy academic standards for graduation.
4. Provide proof of citizenship.
5. Pass a USCG approved Physical Examination.
6. Submit written recommendations concerning suitability for duty.
7. Present evidence of satisfactorily demonstrating STCW required practical skills.
8. Present the following certificates of competence:
a. Certified Radar Observer Certificate
b. ARPA Certificate
c. GMDSS Certificate
d. Flashing Light Equivalence Certificate
e. Basic \& Advanced Firefighting Certificate
f. First Aid Certificate
g. CPR Certificate
h. Lifeboatman Certificate

These qualifications and certificates are prerequisites for the issuance of a Third Mate License. Satisfactory completion of the requirements including the required STCW competency assessments is the responsibility of each deck license candidate. Deck license candidates will be permitted to sit for the U.S. Coast Guard Merchant Marine license examination for Third Mate unless all of these requirements are met three (3) months prior to sitting.

# MASSACHUSETTS MARITIME ACADEMY <br> Department of Marine Transportation <br> Deck License Seminar (MT-4252) 

FROM: CAPT. J. S. Murphy, II
TO: All Deck License Candidates
SUBJECT: CLASSROOM PROCEDURES AND POLICIES

In order to create a proper classroom atmosphere, the following procedures and policies will be carried out at all times:

## A. SECTION LEADER

1. The Section Leader will seat, preserve order and prepare a complete and accurate muster prior to the arrival of the instructor.
2. The Section Leader will make his report to the instructor and then the instructor will seat the class.

## B. ABSENCES

1. Attendance at all classes is mandatory. Unauthorized absence will not be tolerated. Disciplinary action, grade point reduction and dismissal from the class will be administered to repeat offenders.
2. Notice of absence for any reason must be given to the instructor prior to the respective class.
3. Cadets are responsible for all material covered in class. Make-up examinations will not be administered and will incur a grade of zero.

## C. GRADING POLICY

1. In accordance with the Massachusetts Maritime Academy academic policy, the passing grade for the Deck License Seminar (MT-4252) course is $60 \%(\mathrm{D})$. The following grade scale will be strictly adhered to: A (89.5$100 \%$ ), B ( $79.5-89.4 \%$ ), C ( $69.5-79.4 \%$ ), D (59.5-69.4\%), F (59.4\% or less). Grades are determined by the average of percent achieved. Grades will not be scaled. Grades may be increased by a letter grade at the discretion of the instructor for a successful first time pass on all USCG license sections. Grades will averaged based upon the following percentage values:

| 1. Deck License Seminar Pre-Tests | $30 \%$ |
| :--- | :--- | :--- |
| 2. Final Examinations | $35 \%$ |
| 3. License Post-Tests | $35 \%$ |

2. Final Examination and License Post Test sections are graded as pass-fail units with a passing grade of 10 points awarded for the following minimum grade point averages: ( 70 points $/ 70=100 \%$ )
3. Deck General $70 \% \quad 10$ points
4. Navigation General $70 \% \quad 10$ points
5. Safety \& Environmental Protection $70 \%$ points
6. Rules of the Road (International/Inland) $90 \% 10$ points
7. Navigation Problems - Chart Plot Exercise $90 \% 10$ points
8. Navigation Problems - Terrestrial Navigation $90 \% 10$ points
9. Navigation Problems - Celestial Navigation $80 \%$ points

## Cheating by any means will NOT be tolerated. Offenders will incur a semester failure for the course Computers, cell phones, iPads or similar electronic devices are prohibited from the classroom.

## D. ACADEMY STANDARDS

1. At all times in the classroom, every cadet will observe the standards of uniform dress and personal appearance as specified by Academy Regulations.

# MASSACHUSETTS MARITIME ACADEMY <br> Department of Marine Transportation <br> Deck License Seminar (MT-4252) 

COORDINATOR: CAPT. J. S. Murphy, II
SUBJECT:

COURSE SYLLABUS

TEXT:
Deck Officer Study Guide, 2010-2011 Edition
Captain Joseph S. Murphy, II
Academy Publishing Company
(This text is recommended but not required)

## COURSE OBJECTIVE

To assist prospective Deck License candidates with their preparation for the United States Coast Guard license examination for Officer-in-Charge of the Navigational Watch/Third Mate, steam and motor vessels of any gross tons upon oceans. This objective will be achieved through a structured curriculum, which includes a comprehensive review of all the nautical science disciplines. Classroom lectures, discussion, student assignments as well as a rigorous weekly testing program will be utilized. After successfully completing the Deck License Seminar every candidate can reasonably expect to pass the Merchant Marine License examination.

## METHODS OF DEMONSTRATING COMPETENCE

The methods chosen to carry out an evaluation will depend upon what the candidate is expected to achieve in terms of knowledge, comprehension and application of skill or course content.

The methods used can range from:

- Direct observation and participation in classroom training.
- Oral examination - a simple question-and-answer discussion with the candidate (either individually or as a group)
- Written test instruments - prepared multiple choice tests requiring the selection of correct or best responses from given alternatives, the correct matching of given items, the supply of short fill-in answers, the supply of more extensive essay written responses to prepared questions or mechanical drawings and technical sketches.
- Practical demonstration - Where the course content is aimed at the acquisition of practical skills, the test could involve a practical demonstration by the candidate making use of appropriate equipment, tools, or simulation.

The responses demanded may therefore consist of:

- The recall of facts or information, by oral response or objective tests
- The practical demonstration of an attained skill
- The oral or written description of procedures or activities
- Rendering technical drawings, diagrams or sketches of vessel components and/or systems
- The identification and use of data from diagrams, drawings, publications, charts, tables, etc.
- Carrying out calculations to solve numerical problems
- The writing of an essay, journal, or technical report (i.e. workbook assignments)

Massachusetts Maritime Academy is committed to providing reasonable accommodations to students with documented disabilities. Students who believe they may need accommodations in this class are required to report to Dr. Fran Tishkevich, Director of Disability Compliance, within the first two weeks of class. (Ftishkevich@maritime.edu , Office: Room H-311A, Ext. 2208)

## WEEK 1

## LECTURE

## SUBJECT

1 Course Introduction Tuesday March 5
Course expectations, assignments, classroom policies, curriculum standards, attendance, examination format and criteria. Multiple-choice examination testing philosophy, deck reference library list. Review the contents of deck reference material provided by the U.S. Coast Guard.

2 Examination 1 Thursday March 7<br>Navigation Problems/Terrestrial (TNAV) - Course Determination/Leeway, Deviation Table, Compass Correction (Ranges)<br>Navigation Problems/Celestial Navigation (CNAV) - Time of Celestial Phenomena, Sunrise/Sunset, Time of Transit Chart Plot Exercise (Block Island Sound and Approaches, Chart No. 13205-TR 01)

| Examination 2 | Friday |
| :--- | :--- |
| Rules of the Road (International/Inland Part A Rules 1-3) - Definitions |  |
| Navigation General - Navigational Instruments \& Accessories which includes sextant, weather and miscellaneous |  |
| instruments, magnetic \& gyro compasses, radar, AIS, ARPA, ECDIS and the long range navigation systems. |  |
| Chart Plot Exercise (Block Island Sound and Approaches, Chart No. 13205-TR 02) |  |

4 Weekend Routine
Saturday
March 9
Chart Plot Exercise (Block Island Sound and Approaches, Chart No. 13205-TR 03)

## WEEK 2

5 Examination 3

## Tuesday

Deck General - Marlinespike Seamanship
Rules of the Road (International/Inland Part B Rules 4-10) - Steering and Sailing Rules 1
Deck Safety \& Environmental Safety - Communications/General Signaling
Deck Safety \& Environmental Safety - Automated Mutual-Assistance Vessel Rescue (AMVER) (Safety/SAR/AMVER) \& Allied Naval Control of Shipping (NCS) (Deck General/Watch Procedures/Emergency Procedures/NCE)

6 Examination 4
Thursday
March 14
Navigation Problems/Terrestrial (TNAV) - Special Case Bearing, Distance- off, and DR Plots
Navigation Problems/Celestial Navigation (CNAV) - Latitude by Polaris, Azimuth by Polaris, Star Identification, Star Selection
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 01)
7 Examination 5
Friday
March 15
Navigation General - Navigational Astronomy
Rules of the Road (International/Inland Part B Rules 11-19) - Steering and Sailing Rules 2
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 02)

8 Weekend Routine
Saturday
March 16
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 03)

## WEEK 3

| $\mathbf{9}$ | Examination 6 | Tuesday | March 19 |
| :--- | :--- | :---: | :---: |
|  | Deck General - Liquid Cargo Operations (Dangerous Liquids) |  |  |
| Rules of the Road (International/Inland Part C Rules 20-31) - Lights and Shapes |  |  |  |
| Deck Safety \& Environmental Safety - Hazardous Cargoes (46 CFR/49 CFR/Chemical Data Guide) |  |  |  |
| $\mathbf{1 0}$ | Examination 7 | Thursday | March $\mathbf{2 1}$ |
|  | Navigation Problems/Terrestrial (TNAV) - Amplitude (Any Body), Azimuth (Any Body) |  |  |
| Navigation Problems/Celestial Navigation (CNAV) - Parallel Sailing, Mid-Latitude Sailing, Mercator Sailing, Great |  |  |  |
| Circle - Initial Course \& Distance, Voyage Planning, Estimated Time of Arrival |  |  |  |
| Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 01) |  |  |  |

## 11 Examination 8

Friday
March 22
Navigation General - Aids to Navigational (buoyage, charts, publications, navigation practices)
Rules of the Road (International/Inland Part E Rules 32-38, Exemptions \& Annexes) - Sound and Light Signals Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 02)

12 Weekend Routine Saturday
WEEK 4
LECTURE SUBJECT
13 Examination 9 Tuesday March 26
Deck General - Anchoring and Mooring, Towing Operations
Rules of the Road - Combined Test 1 (International/Inland)
Deck Safety \& Environmental Safety - Lifesaving Equipment and Survival at Sea
14 Examination 10
Thursday
March 28
Navigation Problems/Terrestrial (TNAV) - Electronic Navigation, Time Tick, Chronometer error/rate
Navigation Problems/Celestial Navigation (CNAV) - Sight Reduction, Line of Position, Computed Intercept, and Azimuth
Chart Plot Exercise (Block Island Sound and Approaches, Chart No. 13205-TR 04)
15 Examination 11
Friday
March 29
Navigation General- Tides and Currents including Terrestrial Navigation Problems
Rules of the Road - Combined Test 2 (International/Inland)
Chart Plot Exercise (Block Island Sound and Approaches, Chart No. 13205-TR 05)
16 Weekend Routine
Saturday
March 30
Chart Plot Exercise (Block Island Sound and Approaches, Chart No. 13205-TR 06)

## WEEK 5

| 17 | Examination 12 Tuesday | April 2 |
| :--- | :--- | :---: |
| Deck General- Ship Maneuvering and Handling |  |  |
| Rules of the Road - Combined Test 3 (International/Inland) |  |  |
| Deck Safety \& Environmental Safety - Firefighting |  |  |

18 Examination 13
Thursday
April 4
Navigation Problems/Terrestrial (TNAV) - Speed by Revolutions
Navigation Problems/Celestial Navigation (CNAV) - Latitude by Meridian Transit (Any Body), Observed Altitude (Any Body)
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 04)
19 Examination 14
Friday
April 5
Navigation General - Ocean, Winds and Weather
Rules of the Road - Combined Test 4 (International/Inland)
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 05)
20 Weekend Routine Saturday April 6
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 06)

## WEEK 6

21 Examination 15 Tuesday April 9
Deck General - Ship Construction
Rules of the Road - Combined Test 5 (International/Inland)
Deck Safety \& Environmental Safety - Maritime Law; Rules and Regulations (33 CFR/46 CFR/49 CFR/U.S. Code)
*** COMMENCE PATRIOT'S HOLIDAY AFTER LAST CLASS ***

Holiday Routine
Friday
April 10
NO CLASSES - SPRING BREAK ASSIGNMENTS

Holiday Routine
Monday
April 15
NO CLASSES - SPRING BREAK

## WEEK 7

Holiday Routine
Monday
April 15
NO CLASSES - SPRING BREAK
***RESUME CLASSES - TUESDAY, 16 APRIL 2013

## LECTURE

23 Examination 17
Navigation Problems/Terrestrial (TNAV) - Visibility of Lights, Course in Current, Set and Drift
Navigation Problems/Celestial Navigation (CNAV) - Fix/Running Fix (Any Body)
Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 04)
24 Examination 18

## Friday

April 19

Navigation General - Combined Test 1
Rules of the Road - Combined Test 7 (International/Inland)
Deck Safety \& Environmental Safety - Principles of Stability and Damage Control (Both Deck General \& Safety Sections)
Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 05)
25 Weekend Routine
Saturday
April 20
Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 06)

## WEEK 8

26 Examination 19 Tuesday $\quad$ April 23

| Examination 20 $\quad$ Thursday | April 25 |
| :--- | :--- | :---: |
| Navigation Problems/Celestial Navigation (CNAV) - Combined Test 1 |  |
| Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 07) |  |

28 Examination 21
Friday
April 26
Navigation General - Combined Test 2
Rules of the Road - Combined Test 9 (International/Inland)
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 08)
29 Weekend Routine
Saturday
April 27
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 09)

## WEEK 9

30 Examination 22 Tuesday April 30
Deck General - Combined Test 1
Rules of the Road - Combined Test 10 (International/Inland)
Deck Safety \& Environmental Safety - Combined Test 2
31 Examination 23
Thursday
May 2
Navigation Problems/Terrestrial Navigation (TNAV) - Combined Test 1
Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 07)
32 Examination 24 Friday
May 3
Navigation General - Combined Test 3
Rules of the Road - Combined Test 11 (International/Inland)
Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 08)
33 Weekend Routine
Saturday
May 4
Chart Plot Exercise (Chesapeake Bay Entrance and Approaches, Chart No. 12221-TR 09)

## WEEK 10

34 | Examination 25 | Tuesday |
| :--- | :--- |
| Day 1 - FINAL EXAMINATION |  |
| Rules of the Road - Mock U.S. Coast Guard Exam (International/Inland) | May 7 |
| Deck General - Mock U.S. Coast Guard Exam |  |

35 Examination 26 Thursday
May 9
Day 2 - FINAL EXAMINATION
Navigation Problems/Terrestrial (TNAV) - Mock U.S. Coast Guard Exam
Navigation Problems (Chart Plot Exercise) - Mock U.S. Coast Guard Exam
Chart Plot Exercise (Block Island Sound and Approaches, Chart No. 13205-TR 07)

36 Examination $27 \quad$ Friday
Day 3 - FINAL EXAMINATION
Navigation General - Mock U.S. Coast Guard Exam
Deck Safety \& Environmental Safety - Mock U.S. Coast Guard Exam
37 Examination 28
Saturday
May 11
Day 4 - FINAL EXAMINATION
Navigation Problems/Celestial Navigation (CNAV) - Mock U.S. Coast Guard Exam

## Day 2 - POST TEST

Navigation Problems/Terrestrial (TNAV) - Mock U.S. Coast Guard Exam
Navigation Problems (Chart Plot Exercise) - Mock U.S. Coast Guard Exam
Chart Plot Exercise (Long Island Sound - Eastern Part, Chart No. 12354-TR 10)
$40 \quad$ Examination 31 Friday
Navigation General - Mock U.S. Coast Guard Exam
Deck Safety \& Environmental Safety - Mock U.S. Coast Guard Exam
41 Examination 32
Saturday
May 18
Day 4 - POST TEST
Navigation Problems/Celestial Navigation (CNAV) - Mock U.S. Coast Guard Exam

## Tutorial/Self Study

Sunday
May 19
USCG Examination Pre-briefing - Gymnasium TBA
EXAM ROTATION WILL BE CONFIRMED AT THE PRE-BRIEF

## WEEK 12

* CLASS OF 2013 LICENSE CANDIDATES (ONLY)
U.S. Coast Guard May License Exam Schedule at the Massachusetts Maritime Academy
* BEGIN USCG EXAM - MAY 2013 * May 20

42 Day 1 - USCG EXAM
Deck General - A.M.
Navigation General - P.M.
43 Day 2 - USCG EXAM
Tuesday
May 21
Rules of the Road - A.M.
Deck Safety \& Environmental Protection - P.M.
$44 \begin{aligned} & \text { Day 3-USCG EXAM } \quad \text { Wednesday } \\ & \text { Navigation Problems/Terrestrial Navigation (TNAV) - A.M. } \\ & \\ & \text { Navigation Problems (Chart Plot Exercise) - P.M. }\end{aligned}$
45 Day 4 - USCG EXAM
Thursday
May 23
Navigation Problems/Celestial Navigation (CNAV) - A.M.

* END USCG EXAM - MAY 2013 *


## MATERIALS ALLOWED IN THE EXAM ROOM

The following reference texts and materials will be provided by the Coast Guard at the Regional
Examination Center (REC) for use by license candidates for all grades of license.

| 1. | Nautical Almanac |
| :---: | :--- |
| 2. | Reprints from the 1983 Tide \& Tidal Current Tables (COMDTPUB P16721.46) <br> Part 1:1983 Tide Tables (Atlantic Coast of N. America) <br> Part 2: 1983 Tidal Current Tables (Atlantic Coast of N. America) |
| 3. | Sight Reduction Tables for Marine Navigation, H.O. Pub. No. 229, Vol. 2, Latitudes $15^{\circ}-30^{\circ}$, Inclusive |
| 4. | American Practical Navigator, Pub No. 9, Volume II, 1981 Edition |
| 5. | International Code of Signals, H.O. Pub. No. 102, 1969 Edition, Revised 1993 |
| 6. | Reprints from the Light List Lists and Coast Pilots (COMDTPUB P16721.38) <br> Part 1: Block Island and Eastern Long Island Sound <br> Section A: Light List - Volume I (blue pages) <br> Section B: Coast Pilot - 2 (white pages) |
|  | Part 2: Chesapeake Bay Entrance and Approaches <br> Section A: Light List - Volume II (yellow pages) <br> Section B: Coast Pilot - 3 (green pages) |
| 7. | Radio Navigational Aids Pub. No. 117 |

All parts of the above license examination reference materials may be used on every section of the deck license examination with the exception of Rules of the Road during which no reference material of any kind may be used.

## TEST MATERIALS

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1. Training Chart No. 12221-TR, Chesapeake Bay and Approaches
2. Training Chart No. 12354-TR, Eastern Long Island
3. Training Chart No. 13205-TR, Block Island Sound and Approaches
4. Maneuvering Board WOBZP 5090
5. Great Circle Tracking Chart WOXZC 5270
6. Great Circle Tracking Chart WOXZC 5274
7. Position Plotting Sheet VPO SX001 - Universal
8. Position Plotting Sheet 923 (Latitudes \(17^{\circ}-24^{\circ}\) )
9. Position Plotting Sheet 924 (Latitudes \(23^{\circ}-30^{\circ}\) )
10. Stability Worksheets (Locally reproduced)
11. Radar Plots (Locally reproduced for Radar Module)
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## Each Deck Cadets will provide the following materials for the Deck License Seminar

| 1. | Merchant Marine Deck Examination Illustration Book (COMDTPUB P16721.6A) January 1992 Edition |
| :--- | :--- |
| 2. | Nautical Almanac |
| 3. | Reprints from the 1983 Tide \& Tidal Current Tables (COMDTPUB P16721.46) <br> Part 1: 1983 Tide Tables (Atlantic Coast of N. America) <br> Part 2: 1983 Tidal Current Tables (Atlantic Coast of N. America) |
| 4. | Sight Reduction Tables for Marine Navigation, H.O. Pub. No. 229, Vol. 2, Latitudes 15ํ.30, Inclusive |
| 5. | American Practical Navigator, Pub No. 9, Volume II, 1981 Edition |
| 6. | Reprints from the Light List Lists and Coast Pilots (COMDTPUB P16721.38) <br> Part 1: Block Island and Eastern Long Island Sound <br> Section A: Light List - Volume I (blue pages) <br> Section B: Coast Pilot - 2 (white pages) |
| Part 2: Chesapeake Bay Entrance and Approaches |  |
| Section A: Light List - Volume II (yellow pages) |  |
| Section B: Coast Pilot - 3 (green pages) |  |

## CANDIDATES SHALL PROVIDE

1. Rude Star Finder or equivalent with instructions for use.
2. Plotting Instruments:
a. Two (2) protractor triangles and large parallel rule
b. Large dividers with spare tips or sharpened tips
c. Large compass with spare tips and leads
d. Circular protractor
e. Small ruler
f. Metal yard stick
g. Pencils No. 2 or mech. pencils with spare lead
h. Pencil sharpener
i. Eraser (Chart quality)
j. Blue highlighter
k. Ink pens (black and red)
3. A Tote Bag to stow all of the above

Calculator - Only non-programmable calculators are permitted. Applicants may use calculators, but are not permitted to use preprinted forms during the examinations. All calculators must meet the following standards:
a. It must not use pre-programmed strips or chips or any other pre-programmed device that may be inserted into the calculator.
b. It may not be a permanently programmed specialty computer, such as a navigation computer. Computers capable of generating trigonometric functions, logs and anti-logs, squares, cubes, and roots thereof, are acceptable provided they meet the other requirements.
c. Any manually programmable calculator without simple erasure capability is not permitted.
d. Any printed calculator tape must be turned in at the end of the exam with any scratch paper.
3. Spiral binder (3") with separators for notes

"Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise Gefore defeat." Sun Tzu, The Art of War (400 B.C.)

Sun Tzu, fl. c.500-320. B.C., the name used by the unknown Chinese authors of the sophisticated treatise on philosophy, logistics, espionage, strategy and tactics known as The Art of War. It includes many commentaries by later Chinese philosophers. One person probably wrote the core text during a time of expanding feudal conflicts, but the exact century is uncertain. Most authorities now support a date early in the Warring States period (c.453221 B.C.). This work has deeply influenced Chinese, Vietnamese, and Japanese military thinking and has enjoyed growing popularity among businessmen. It stresses the unpredictability of battle, the importance of deception and surprise, the close relationship between politics and military policy, as well as the high costs of war. The futility of seeking hard and fast rules and the subtle paradoxes of success are major themes. Sun Tzu advises:

## "The best 6attle is the 6attle that is won without being fought."

