

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	MTE 2802
COURSE TITLE:	Coastal Navigation
PREREQUISITE(S):	None
COREQUISITE(S):	None
CREDIT HOURS:	3
CONTACT HOURS/WEEK:	3
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	3
Laboratory:	
Other _____:	
FACULTY WORKLOAD POINTS:	3
STANDARDIZED CLASS SIZE ALLOCATION:	30

CATALOG COURSE DESCRIPTION:

This course is a study of materials, equipment, techniques and procedures involved in safe marine coastal navigation. Topics such as theory of chart projections, construction of Mercator projection, magnetism and the magnetic compass, ship's position finding by dead reckoning and piloting, employment of nautical charts and utilization of aids to navigation as well as the theory and effect of tides and currents are also included.

SUGGESTED TEXT(S):	<u>The American Practical Navigator: "Bowditch."</u> Illustrate Edition (September 25, 2002). Author: Nathaniel Bowditch. Publisher: Paradise Cay Publications. ISBN: 0939837544.
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IMPLEMENTATION DATE:	Spring Term, 2008 (20082)
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REVIEW OR MODIFICATION DATE:	
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COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. Magnetic and Gyro Compass	8
a. The theory of magnetic and gyro compasses	
b. Nomenclature of the Magnetic and Gyro compasses	
II. Coastal Navigation	14
a. Definitions - Earth	
b. Charts and Symbols	
c. Datum's	
d. Compass correction	
e. Distances, Time and Speed Calculations	
f. Positions lines and positions - Visual	
g. Positions lines and positions - Electronic	
III. Determination of Deviation and Construction of Deviation Tables	14
a. Calculation of deviation by two known terrestrial objects	
b. Calculation of deviation by Celestial observation 'azimuth' and 'Amplitude'	
c. Solar system	
d. Celestial sphere	
e. Hour angle	
f. Daily motion and horizontal system of coordinates	
g. Time and equation of time	
h. Sight Reduction	
i. Construction of Deviation Tables	
IV. Tides and Currents	9
a. Calculation of Tides	
b. Calculation of Currents	
c. Plotting of Set and Drift	
TOTAL CONTACT HOURS	45

PROGRAM TITLE: Industrial management (2278)

COURSE TITLE: Coastal Navigation

CIP NUMBER: 00606200101

LIST PERFORMANCE STANDARD(S) ADDRESSED:

NUMBER(S): TITLES(S):

01.0 APPLY SUPERVISION SKILLS - The student should be able to:

- 01.03 Follow leadership principles and approaches.
- 01.04 Apply positive approaches to discipline.
- 01.06 Develop organizational plans.

02.0 COMMUNICATE EFFECTIVELY IN SUPERVISION - The student should be able to:

- 02.01 Solve problems in communicating.
- 02.03 Apply listening skills.
- 02.04 Use communication feedback effectively.
- 02.10 Prepare a written technical report.

07.0 EMPLOY CREATIVE THINKING TO ACHIEVE BUSINESS OBJECTIVES - The student should be able to:

- 07.01 Conduct and apply techniques for maximum production of ideas.
- 07.04 Oversee problem solving.

09.0 DEMONSTRATE APPROPRIATE COMMUNICATION SKILLS - The student should be able to:

- 09.02 Read and understand graphs, charts, diagrams, and tables commonly used in the industrial/occupational area.
- 09.03 Read and follow both written and oral instructions.
- 09.04 Answer and ask questions coherently and concisely.

10.0 DEMONSTRATE APPROPRIATE MATH SKILLS - The student should be able to:

- 10.03 Add, subtract, multiply, and divide using fractions, decimals, and whole numbers.

11.0 DEMONSTRATE APPROPRIATE UNDERSTANDING OF BASIC SCIENCE - The student should be able to:

- 11.02 Draw conclusions or make inferences from data.
- 11.04 Understand pressure

14.0 DEMONSTRATE KNOWLEDGE OF DATA-PROCESSING ACTIVITIES - The student should be able to:

- 14.04 Interpret operations of a flowchart of a simulated business job.
- 14.05 Check printout for error, correct, and resubmit.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

<i>Section 1</i>		
COURSE PREFIX AND NUMBER: MTE 2802		SEMESTER CREDIT HOURS: 3
COURSE TITLE: Coastal Navigation		
<i>Section 2</i>		
TYPE OF COURSE: (Click on the box to check all that apply)		
<input type="checkbox"/> AA Elective	<input type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input checked="" type="checkbox"/> AS Professional Elective	<input type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other		
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		
<i>Section 3 (If applicable)</i>		
INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:		
<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	
<i>Section 4</i>		
INTELLECTUAL COMPETENCIES:		
<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input checked="" type="checkbox"/> Information Literacy
<input checked="" type="checkbox"/> Quantitative Skills	<input checked="" type="checkbox"/> Scientific Method of Inquiry	
<input checked="" type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively	
Section 5		
	LEARNING OUTCOMES	METHOD OF ASSESSMENT
• 1	Upon completion students will be able to:	
• 2	Demonstrate a knowledge of coastal navigation theory	Group discussions, oral presentations, written tests, reports, and/or demonstrate competency in the field
• 3	Demonstrate an ability to gather, analyze and interpret navigation data to insure safe navigation with a high degree of accuracy	Group discussions, oral presentations, written tests, reports, and/or demonstrate competency in the field
• 4	Demonstrate an ability to perform calculations with a high degree of accuracy.	Group discussions, oral presentations, written tests, reports, and/or demonstrate competency in the field
• 5	Calculate astronomical twilight, Sun/Moon rise and set and time of LAN	Projects / Tests / Quizzes
• 6	Calculate and determine ship's position by all means available	Projects / Tests / Quizzes
• 7	Calculate magnetic and gyro error by coastal and astronomical observations	Projects / Tests / Quizzes
• 9	Develop a comprehensive voyage plan and navigation plot	Creative Team Projects

Section 6	Name of Person Completing This Form: Amaya Davis	Date: July 12, 2007
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