
Представлены методические основы преподавания дисциплин «Дискретные структуры» и «Компьютерная дискретная математика». Обоснована целесообразность последовательного преподавания теории множеств, математической логики, комбинаторного анализа и теории графов. Изучение теории языков и грамматик, теории автоматов и алгоритмов логично продолжать после ознакомления с базовыми элементами дискретной математики.

Ключевые слова: множества, математическая логика, комбинаторный анализ, графы, языки, грамматики.

Methodical bases of teaching of disciplines the «Discrete structures» and «Computer discrete mathematics» are presented. Expedience of the successive teaching of theory of sets, mathematical logic, combinatorics analysis and theory of the graphs is grounded. Study of theory of languages and grammars, the theories of automata and algorithms must to continue after an acquaintance with the base elements of discrete mathematics.

Keywords: sets, mathematical logic, combinatorics analysis, graphs, languages, grammars.

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MARITIME ENGLISH TERMINOLOGY: SOME ASPECTS OF DEVELOPING TEACHING / LEARNING MATERIALS FOR THE STUDENTS OF THE FACULTY OF NAVIGATION

The paper focuses on the principles and various techniques in preparing Maritime English (ME) teaching / learning materials as a source of independent work for the students of the Faculty of Navigation. The notion of a terminographic essay is introduced and a sample is suggested to demonstrate the new trends in methodological approaches to the problem. The research is carried out within the frameworks of the Innovation Project aiming to design the Maritime English Study Pack for Bachelors.

Key words: Maritime English, a terminographic essay, students' independent work.

Setting goals of the research. The importance of the process of introducing the communicative methods of teaching maritime students is mostly connected with availability (or absence) of a Course Book, a Student's Book, a Teacher's Book, a Specialised Dictionary and additional materials developed on their basis. The design or updating of teaching/learning materials on Maritime English is the current assignment of language teachers working at ESP (English for Specific Purposes) department. The materials for independent work of Maritime students form a special sphere of teaching/learning materials since they meet the needs of the learners in proper acquisition, revision, systematization, refreshing their knowledge and communicative skills thus filling the gap between language classroom activities and practical work in a multilingual crew of a merchant vessel.

Principles of development of teaching /learning materials in English for Specific Purposes (ESP) The question of the difference between ESP and EGP (English for General Purposes) has been addressed in the literature in terms of theory and practice. Hutchinson and Waters (1) state that there is no difference between the two in theory; however, there is a great deal of difference in practice. ESP differs from EGP in the sense that the words and sentences learned and the subject matter discussed are all relevant to a particular field or discipline. In our case these are Navigation,

Marine Engineering and subjects /topics referred to General English and General Maritime English.

The basic approaches and principles of developing teaching /learning materials meant for students' independent work are as follows:

- a) original sources of the materials and minimum of their adaptation;
- b) linguistic analysis used to introduce and explain professional notions and facts;
- c) broadening the students' skills including search of different sources of information on the subject: course books of various authors, the Internet, additional materials;
- d) broad coverage of materials for the students with different language proficiency levels.

The specialists of MET (Maritime Education and Training) developed the "Yardstick for Maritime English STCW assessment purposes" (C. Cole, P. Trenkner) which contains descriptors of ME levels of competences for officers only. The 1st and 2nd year students of MET institutions (ratings) are not mentioned there (2). So, in case of Maritime English beginners much depends on the strategy of ESP departments and availability of modern teaching/learning materials. As stated in the Project being carried out, the "early specialization" is the methodological principle which suggests the opportunity of joining ESP and EGP for ME beginners to improve students' language proficiency.

A terminographic essay as a sample of teaching/learning materials for students' independent work A terminographic essay is a type of a teaching/learning material describing a particular professional subject or situation. It is based on the application of a linguistic approach, i.e. the introduction of a professional theme with the help of language tools: synonyms, antonyms, definitions, examples, citations, various texts.

Below the sample of a terminographic essay is suggested.

Conclusion

As the experience shows, a terminographic essay as a specific type of teaching / learning materials for independent work of Maritime English students helps to acquire the original language pieces owing to purely language means thus making possible to understand the specialists matter of the textual information proposed.

TERMINOGRAPHIC ESSAY "ACCIDENTS AT SEA " ТЕРМИНОГРАФИЧЕСКОЕ ЭССЕ « АВАРИИ НА МОРЕ»

Accident, n - (æk 's ɪ-dənt^l) -An unexpected and undesirable event, especially one resulting in damage or harm.

Etymology: [via Old French from Latin *accident-* chance, happening, from the present participle of *accidere* to befall, happen, from *ad-* to + *cadere* to fall]

Synonyms:

accident - *an unfortunate mishap especially one causing damage or injury*

collision - *an accident resulting from violent impact of a moving object*; "three passengers were killed in the collision"; "the collision of the two ships resulted in a serious oil spill"

crash, wreck - *a serious accident (usually involving one or more vehicles)*; "they are still investigating the crash of the TWA plane"

accidental injury, injury - *an accident that results in physical damage or hurt*

misadventure, mischance, mishap - *an instance of misfortune*

wreck, shipwreck - *an accident that destroys a ship at sea*

fatal accident, casualty - *an accident that causes someone to die*

Disaster, n - (d ɪ-z ɛs tər a. An occurrence causing widespread destruction and distress; a catastrophe. b. A grave misfortune.

Etymology: [French *désastre*, from Italian *disastro* : *dis-*, *pejorative pref.* (from Latin *dis-*; see *dis-*) + *astro, star* (from Latin *astrum*, from Greek *astron*)]

Synonyms: *catastrophe, trouble, blow, accident, tragedy, ruin, misfortune, adversity, calamity, mishap, misadventure, cataclysm, ruination, mischance, failure, mess*

Casualty, n - (k'æʒh'ʊ-əl-tē) *pl. ca·su·al·ties*

1. An accident, especially one involving serious injury or loss of life.
2. One injured or killed in an accident: a ship wreck with many casualties.
3. One injured, killed, captured, or missing in action through engagement with an enemy. Often used in the plural: Battlefield casualties were high.
4. One that is harmed or eliminated as a result of an action or a circumstance

Etymology: [Middle English *casuelte*, from Old French, from Medieval Latin *casualitas*, *chance, accident*, from Latin *casualis*, *fortuitous*; see **casual**.]

Synonyms:

victim - *an unfortunate person who suffers from some adverse circumstance*;

injured party, fatal accident;

accident - *an unfortunate mishap; especially one causing damage or injury*;

fatality, human death - *a death resulting from an accident or a disaster; "a decrease in the number of automobile fatalities"*;

collateral damage - *(euphemism) inadvertent casualties and destruction inflicted on civilians in the course of military operations*.

Manslaughter, n (m'ænzslô'tɔr) - The unlawful killing of one human by another without express or implied intent to do injury. Homicide without malice aforethought.

Synonyms: *homicide, murder, manslaughter* - The general term for the killing of a person by another is homicide; murder is either the intentional killing or the malicious killing of another, while manslaughter is the unintentional, accidental killing of another through carelessness.

Risk, n (r'ɪsk)-**1.** The possibility of suffering harm or loss; danger. **2.** A factor, thing, element, or course involving uncertain danger; a hazard: "the usual risks of the desert: rattlesnakes, the heat, and lack of water" (Frank Clancy). **3. a.** The danger or probability of loss to an insurer.

Etymology: [French *risque*, from Italian *risco, rischio*.]

Synonyms: **risk** - *a source of danger; a possibility of incurring loss or misfortune endangerment, hazard, jeopardy, peril*

danger - *a cause of pain or injury or loss*;

health hazard - *hazard to the health of those exposed to it*; **moral hazard** - *(economics) the lack of any incentive to guard against a risk when you are protected against it (as by insurance)*.

Emergency, n (ĩ-mûr'jɛn-sē) *pl. e·mer·gen·cies*

1. A serious situation or occurrence that happens unexpectedly and demands immediate action.
2. A condition of urgent need for action or assistance: a state of emergency.

Etymology: Comes from Latin *emergere* (e-, "from," and *mergere*, "to dip, plunge") and first meant "unforeseen occurrence."

Synonyms: *Noun crisis, danger, difficulty, accident, disaster, necessity, strait, catastrophe, calamity, extremity, critical situation, urgent situation.*

Adjective 1. urgent, crisis, immediate 2. alternative, extra, additional, substitute, replacement, temporary, makeshift, stopgap.

VOCABULARY BOX

accident - авария, поломка, повреждение; происшествие; случай; случайность

casualty - катастрофа; несчастный случай; авария Syn: disaster, mishap 2) жертва (несчастного случая). Syn: victim 3) раненый; убитый

disaster - бедствие

distress – бедствие; наложение ареста на имущество

emergency - авария; выход из строя; аварийный; запасной; непредвиденный случай; чрезвычайное обстоятельство

manslaughter - непредумышленное убийство murder, homicide

peril - опасность; риск на море

What's a maritime disaster? - A **maritime disaster** is an event which usually involves a ship or ships and can involve military action. Due to the nature of maritime travel, there is often a large loss of life.

Maritime disasters: To sink –sinking To capsize – capsizing To list – listing
To flood –flooding To run aground – grounding To explode – explosion
To set on fire – fire To hit rocks – hitting rocks To collide – collision To allide – allision
To crash – crash To wreck – wreck Man overboard To abandon ship – ship abandonment
To commit an (navigational) error – human error Engine breakdown
Natural disasters: hail, hurricane, earth-quake, sea-quake, tornado, monsoon, flood, tropical storm, eruption of a volcano, drought, gale, cyclone, tsunami, slide
Природные катаклизмы: град, ураган, землетрясение, моретрясение, муссон, наводнение, тропический шторм, извержение вулкана, засуха, шторм, циклон, цунами, оползень

CRUISE DISASTER

Italy cruise ship Costa Concordia ran aground near Giglio (January,14, 2012; Yahoo, BBC)



Ship Statistics (available at the web-site of COSTA CROCIERE s.p.a. , the owner and the manager of the vessel)

Name: Costa Concordia

Builder: Fincantieri

Ship Completed Date: 7/17/2006

Call Letters: IBHD

Number of Crew, Nationality: 1068, International

Stabilized: Yes

Maximum Speed: 23 knots

Number of Inside Rooms: 586

Number of Restaurants: 5

Voltage: 110

Registry: Italy

Country Built In: Italy

Christened By: Eva Herzigova

Capacity: 3700

Gross Tonnage: 114500

IMO Number: 9320544

Average Speed: 20 knots

Length: 951 feet

Number of Outside Rooms: 914

Number of Pools: 4

Non-Smoking Dining: Yes

On January 13, 2012, the Costa Concordia, with approximately 4,200 individuals on board crashed into an undetermined object off the coast of Italy. The ship suffered a 160-foot gash in its hull, causing it to rapidly keel over and partially submerge. Rescue efforts for those still unaccounted for are ongoing, and two Americans remain missing. According to reports, the ship's captain overrode a pre-programmed course and is being charged in Italy with manslaughter and abandoning ship before passengers were evacuated. January 18, 2012. The regional prefect's office said 4,165 out of 4,234 people on board had been accounted for, the Italian news agency Ansa reported. Italian, German, French and British nationals were among the 3,200 passengers on board. There were also 1,000 crew. The company operating a cruise ship that capsized after hitting rocks off western Italy on Friday says the captain may have "committed errors". He appears to have sailed too close to land

and not to have followed the company's emergency procedures, Costa Crociere said in a statement. Capt Francesco Schettino is suspected of manslaughter, but denies wrongdoing.

Tasks for independent and individual work:

- 1) Read and analyze the information of the text.
- 2) Search for the same type of information, using the web-sites: www.cruisejunkie.com/events.html; www.globalsecurity.org/.../accidents.htm; www.rjw.co.uk/.../accidents.../overseas-acci.
- 3) Present the reports about an accident at sea.

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Демиденко Н.П.

МОРСКАЯ АНГЛИЙСКАЯ ТЕРМИНОЛОГИЯ: НЕКОТОРЫЕ АСПЕКТЫ РАЗРАБОТКИ УЧЕБНЫХ МАТЕРИАЛОВ ДЛЯ СТУДЕНТОВ ФАКУЛЬТЕТА СУДОВОЖДЕНИЯ

Цель статьи – продемонстрировать принципы составления и некоторые виды учебных материалов по английскому морскому языку, предназначенные для самостоятельной работы студентов факультета Судовождения. Вводится понятие «терминографическое эссе» и предлагается образец данного вида методической разработки. Исследование проводится в рамках инновационного проекта по созданию учебного комплекса по английскому морскому языку для студентов-бакалавров.

Ключевые слова: морской английский язык, терминографическое эссе, самостоятельная работа студентов.

Демиденко Н.П.

МОРСЬКА АНГЛІЙСЬКА ТЕРМІНОЛОГІЯ: ДЕЯКІ АСПЕКТИ РОЗРОБКИ НАВЧАЛЬНИХ МАТЕРІАЛІВ ДЛЯ СТУДЕНТІВ ФАКУЛЬТЕТУ СУДНОВОДІННЯ

Мета статті – продемонструвати принципи складання та деякі різновиди навчальних матеріалів з англійської морської мови для самостійної роботи студентів факультету Судноводіння. Вводиться поняття «термінографічний нарис» та пропонується зразок даного виду методичної розробки. Дослідження виконується в рамках інноваційного проекту зі створення навчального комплексу з англійської морської мови для студентів-бакалаврів.

Ключові слова: морська англійська мова, термінографічний нарис, самостійна робота студентів.

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Тирон О.М.

ВИКОРИСТАННЯ ФЛЕШ-КАРТOK ЯК МНЕМОНІЧНИЙ ПРИЙОМ

Автор описує роботу науковців КДАВТ над проектом «Розробка навчального комплексу з англійської мови для моряків». Одним з елементів навчального комплексу є книга ресурсних матеріалів у вигляді набору флеш-карток різного типу. Враховуючи особливості роботи