Faculty: FACULTY OF TELECOMMUNICATIONS AND MANAGEMENT
Department: GENERAL ENGINEERING
Professional Field: 5.13. GENERAL ENGINEERING
Specialty: DIGITAL ENTREPRENEURSHIP AND HIGH TECHNOLOGY
Educational-qualification degree: BACHELOR

LEARNING COURSE DESCRIPTION

1. Course title: *QUALITY ENGINEERING*
2. Course code: B.45.008.2
3. Type of the course: *Elective*
4. Level: *Bachelor*
5. Year of study: *First*
6. Semester: *First*
7. Number of credits: *3*
8. Name of the lecturer: *Assoc. Prof. eng. Plamen Pavlov, PhD*
9. Course learning outcomes:

The aim of the course is to give students a systematic knowledge of quality engineering.

Students who have completed their training in the discipline *must acquire:*

Basic knowledge of the nature and specifics of the methods and tools used in quality engineering, its practical application in the organization and the activity of the human factor for its continuous improvement.

Practical skills for using the methods and tools for quality engineering, the mechanisms by which they can be implemented in the company.

Competencies: After completion of the course, students must have mastered the methods and tools of quality engineering, their technology and their implementation in organizations.

10. Teachingmethods:

The way of teaching is in lecture and discussion form, according to the specifics of the subject. Emphasis is placed on key issues related to quality engineering methods and tools and multimedia is used.

11. Prerequisites:

Students should have knowledge of the following disciplines: Enterprise economy.

Courses using the discipline are: Production management, Engineering and production Logistics, Fundamentals of management, Business process management, Reverse engineering and modernization.

12. Course contents:

The course focuses on key issues related to the evolution in the development of quality engineering, policy, models, methods and tools for quality management.

The course *"Quality Engineering"* is a complementary and extremely useful discipline including the entire cycle and knowledge related to the methods and tools for quality engineering and the possibilities for their implementation in companies.

13. Bibliography

Basic literature:

1. **Сирашки, Х.**, и др. (2016). Управление на качеството. АИ “Ценов”.
2. **Тенчев, Д., Кондев, Г.** (2016). Мениджмънт на качеството. АИ “ХТМУ”.
3. **Кузьмина Е.А., Кузьмин А.М.** Функциональный анализ – основа ме тодологии ФСА // Методы менеджмента качества, 2003. № 6.
4. **Evans, J., Lindsay, W.** (2016). Managing for Quality and Performance Excellence. Cengage Learning Publishing.
5. **Connie M. Borror** The Certified Quality Engineer_Handbook, ASQ, 2009
6. **Записки от лекции.**

Additional literature:

1. **Ангелов, Б.** (2012). Управление на качеството. “Фабер”.
2. **Кузманов, Т., Крумов, К.** (2013). Управление на качеството. “Екс-Прес”.
3. **Маркелов К. С.** Инжиниринг качества // Мо лодой ученый. — 2012. — №7.
4. **Papp, J.** (2014). Quality Management. Mosby Publishing.

14. Assessment methods and criteria:

The course ends with an *ongoing assessment*.

1. Requirements for forming the six-point rating system

Students are given tasks for independent work on quality management systems. The results of the exercises are formed according to a point system. Current control is performed in the form of tests, case studies and practical tasks. The conduct of the classes is controlled by checking the results of the students, according to previously announced criteria. The activity of each student, his personal and collective contribution to the assignments is taken into account. Students receive certification after successful participation in the seminars during the semester, and the minimum requirements for attendance and work is at least 60% of the time for which tests, case studies and practical tasks set by the lecturer are made. The course ends with an ongoing assessment. The individual and team work of the student during the semester is reported - current control during lectures and seminars.

2. Formation of the final assessment

The grade for the course is formed by a point system, the maximum number of points that students can receive is 100 (see Table 1). They are formed by one practical assignment, developed in a team of several students, assigned by the lecturer of the course (according to topics from the syllabus) and two assignments in the seminars - presentation of course work (optional student of given areas, ie topics by syllabus) and practice for knowledge acquisition. With the assessment, which is formed by the obtained sum of points (from lectures and exercises), ie. with current control, the student is formed according to pre-announced criteria. The formation of the current assessment in the training course is in accordance with the received points and their arrangement according to the six-point system, given in Table 1.

Table 1.

Number of points	**Assessment According to the 6-point Scale System**
0 – 20	Fail 2 (F)
20 – 39	Fail 2 (FX)
40 – 49	Satisfactory 3,00 (E)
50 – 59	Satisfactory 3,00 (D)
60 – 69	Good 4,00 (C)
70 – 84	Very good 5,00 (B)
85 – 100	Excellent 6,00 (A)

15. Language of instruction: *Bulgarian*