Faculty of International Economics and Administration
Department: Informatics
Professional area: Informatics and Computer Studies
Major: WEB Design
Educational – and - qualification Degree: Master

COURSE DESCRIPTION

1. Course unit title: **Structural Combinatorics**
2. Course unit code: **FAR 1010**
3. Type of course unit: elective
4. Level of course unit: Master
5. Year of study: first
6. Semester: first
7. Number of ECTS credits allocated: 3
8. Name of lecturer: Prof. Rosen Radoev
9. Learning outcomes of the course unit: Structural Combinatorics is a fundamental science in the area of design and the knowledge and skills acquired during the course are an important part of the professional art culture of every designer. Good knowledge of the essence of the Structural Combinatorics is a guarantee for the professional mastering of the process of composing and formation in design.
10. Mode of delivery: face-to-face
11. Prerequisites and co-requisites: Students are required to have basic knowledge from secondary school education and from the Bachelor's degree.
12. Course contents: Observation analysis; Forms description; Form categories; Bilateral open planes; Regular networks – formation; Demi-regular networks ; Linear planes; Construction of bilateral open planes; Space networks; Regular polyhedrons – Plato and Archimedean solids, Kepler solid; Demi-regular polytops; One-sided surfaces (one-sided open and one-sided closed); Impossible figures – Mourits Escher; Symetry, translation and rotation of modules in a plane.
13. Recommended or required reading:
- *Райчев Р. , Структурна комбинаторика. " Анубис" , София 2002*
- *Сомов Ю. С. , Композиция в технике. , "ИМ" , Москва 1987*
- *Sehen & Werten , Modul, Proportionq, Simetrie, Rhitmus. La Connaissance, Brussel 1969*
- *Sehen & Werten , Visuelle erziehung. La Connaissance, Brussel 1969*
- *Sehen & Werten ,Struktur in Kunst und Wissenschaft. La Connaissance, Brussel 1969*

14. Planned learning activities and teaching methods: Lectures; Laboratory work – task assignments; Contact hours online.
15. Assessment methods and criteria**:** Examination – Students present the course assignment works completed and in several variations. The task assignment works are handed in on paper and on a digital device. Assessment is on the artistic value of the project (composition, colour, form), originality of the idea, quality of the technical implementation, the number of variations of the task, as well as the design of the presentation.
16. Language of instruction: Bulgarian
17. Work placement: none