

Constructions (I-st Year of study, II-nd semester)

Credit value (ECTS) 4

Course category

Domain (Imposed)

Course holder:

Lecturer Dr. Roxana Dana Bucur

Discipline objectives (course and practical works)

Construction discipline provides the basics necessary properties graphic design language, which operates all technical disciplines. Structures farm buildings are considering compiling those who work in specific environments stabling animals and their food storage, structural elements specific agricultural environment. Refer to the knowledge to be acquired on optimal functionality correlated with the process of agriculture. It is aimed at:

- provide students with the knowledge of building materials and use depending on the physico-mechanical properties
- knowledge of the manner in which agricultural buildings
- knowing how to design a unit in the agriculture and its zoning for the activities performed in that territory
- knowing how to streamline basic and auxiliary spaces depending on the materials they are made and farm buildings designed with needs
- ability to identify, explain specific problems of construction and to propose and interpret coherent technical solutions to increase their efficiency.
- professional development through activities supporting works and subject-specific projects on various themes, manifesting positive and responsible attitudes towards science, developing interest in the application of technology implementation in conjunction with the specific construction of productive agriculture

Contents (syllabus)

Course (chapters/subchapters)
Introduction. Purpose, importance, course content and relationships with other disciplines
General characteristics of building materials. Natural stone, wood, metal, ceramics, glass, mortar, concrete, synthetic polymers, waterproofing and thermal isolations materials.
Construction elements and structures from wood, metal, masonry, concrete.
Resistance elements of constructions. Foundations. Walls. Roofs.
Finishing works. Flooring. Plastering. Plywood. Stairs.
Agricultural building with masonry structure.
Agricultural building with steel.
Agricultural buildings of reinforced concrete.
Buildings for storage, preservation and crop production. Deposits of small and large. Construction for grain storage. Construction for storing fodder.

Practical works
Getting special drawing. Formats. Stairs. Quotations. Axe staking. Quoting level. Conventional representation.
Presentation of construction materials. Constructive solutions in elevation. Stairs.
Calculation of heat loss from a different design elements closure of construction.
Solutions for buildings made from environmentally friendly materials.
Analysis constructive solutions regarding the efficient work area -by mathematical economic calculations.
Sizing modules productive spaces. Zoning of the territory on activities designed unit.
The general outline of a farm units. 1-st board
Calculation of water projected unit.
Calculation of technical and economic indicators of the overall plan.
Design basic premises imposed by space-saving design theme productive. 2-nd board
Behavior and thermal calculation of building elements. 3-rd board
Calculation of masonry, glass and concrete needed to build basic premises required design theme.
Calculation of energy to make work within the company designed
Estimate the categories of works.

Bibliography

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2. Dana Roxana Bucur - Construction horticultural Publisher Ion Ionescu de la Brad, Iasi, 2011
3. T. Berar - Elements of civil, industrial, agricultural and forestry Horizons Educational Publishing, 2005;
4. T. Berar - industrial, industrial, agricultural, Mirton Press, 2002;
5. Bob C. - Building materials, EDP, Bucharest, 1982;
6. D. Tudor - industrial, industrial, agricultural, IPT, Timisoara, 1986;
7. Negoită AL. - Civil, EDP, Bucharest, 1976;
8. Gâdeanu E. - Industrial buildings, IPT, Timisoara, 1986;
9. I. Borza - Building construction, IPT, Timisoara, 1996

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Writing evaluation	70%
Ongoing evaluation	Writing evaluation	20%
Practical work	Sustained activity in practical work	10%

Contact

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