



SYLLABUS CONTENT

1. Program information

| | | |
|-----|------------------------------|-------------------------------------|
| 1.1 | Higher Education Institution | Technical University of Cluj-Napoca |
| 1.2 | Faculty | Civil Engineering |
| 1.3 | Department | Civil Engineering and Management |
| 1.4 | Field of study | Civil Engineering |
| 1.5 | Cycle | Graduation |
| 1.6 | Study program/Qualification | Civil Engineering |
| 1.7 | Type of education | IF – învățământ cu frecvență |
| 1.8 | Syllabus code | 22.00 |

2. Syllabus information

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|-----|-----------------|----|---|----------|---|-----|------------|------------|-----|---------------|-----|--|
| 2.1 | Syllabus name | | Management and Administration of Construction Works (I) | | | | | | | | | |
| 2.2 | Subject area | | Civil Engineering | | | | | | | | | |
| 2.3 | Course official | | Assoc. Prof. Eng. PhD Livia Anastasiu | | | | | | | | | |
| 2.4 | Syllabus holder | | Assoc. Prof. Eng. PhD Livia Anastasiu | | | | | | | | | |
| 2.5 | Year of study | II | 2.6 | Semester | I | 2.7 | Evaluation | Colloquium | 2.8 | Syllabus type | DOB | |

3. Total estimated time

| An/ Sem | Name of discipline | Nr. sapt. | Course | Applic. | | | Curs | Applic. | | | Stud. Ind. | TOTAL | Credit |
|------------|---|--------------|--------------|---------|---|--------------|------|---------|----|---|---------------|-------|--------|
| | | | [hours/week] | | | [hours/week] | | | | | | | |
| | | | | S | L | P | | S | L | P | | | |
| II/1 | Management and Administration of Construction Works (I) | 14 | 2 | | 1 | | 28 | | 14 | | 36 | 78 | 3 |

| | | | | | | | | |
|---|------------------------------|----|-----|---------------|----|-----|-----------|-----|
| 3.1 | Numar de ore pe saptamina | 3 | 3.2 | din care curs | 2 | 3.3 | aplicatii | 1 |
| 3.4 | Total ore din planul de inv. | 42 | 3.5 | din care curs | 28 | 3.6 | aplicatii | 14 |
| Studiul individual | | | | | | | | Ore |
| Studiul dupa manual, suport de curs, bibliografie si notite | | | | | | | | 10 |
| Documentarea suplimentara in biblioteca, pe platformele electronice si pe teren | | | | | | | | 10 |
| Pregatire seminarii/laboratore, teme, referate, portofolii, eseuri | | | | | | | | 8 |
| Tutoriat | | | | | | | | 6 |
| Examinari | | | | | | | | 2 |
| Alte activitati | | | | | | | | - |
| 3.7 | Total ore studiul individual | 36 | | | | | | |
| 3.8 | Total ore pe semestru | 42 | | | | | | |
| 3.9 | Numar de credite | 3 | | | | | | |

4. Prerequisite (where it's necessary)

| | | |
|-----|--------------|---------------|
| 4.1 | Curriculum | Not necessary |
| 4.2 | Competencies | Not necessary |

5. Conditions (where it's necessary)

| | | |
|-----|--------------|---------------|
| 5.1 | Course | Not necessary |
| 5.2 | Applications | Not necessary |



6. Specific competencies

| | | |
|---------------------------|---|--|
| Professional competencies | Theoretical competencies (What he/she has to know) | <ul style="list-style-type: none"> - to understand the importance of management in constructions - to understand the management's functions - to understand the importance of estimation in construction projects - to understand the importance of norms in constructions |
| | Acquired skills: (What he/she learned) | After studying the discipline, the students will be able: <ul style="list-style-type: none"> - to prepare a feasibility study - to use the norms for price estimation - to estimate the resources for a construction project |
| | Acquired abilities: (What instruments can handle) | After studying the discipline, the students will be able: <ul style="list-style-type: none"> - to make a project estimation using INTELISOFT - to make a price analyse - to optimize the costs of a construction project |
| Transversal competencies | Completing and presenting a construction project with the calculations and site organization project. | |

7. Syllabus objectives (coming from the grid of acquired specific competences)

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|-----|---------------------|--|
| 7.1 | General objective | Developing the competencies regarding the price estimation in constructions |
| 7.2 | Specific objectives | Accomplishing theoretical knowledges concerning price estimation in constructions. |



8. Content

| 8.1. Course (analytical syllabus) | | Teaching methods | Observations |
|--------------------------------------|--|--------------------------|--------------|
| 1 | Introduction to management in constructions | Interactive Projector | |
| 2 | The investment process: phases, parties, pre-feasibility study | | |
| 3 | The feasibility study, aprovals, agreements, planning certificate | | |
| 4 | Technical project for the construction works. Building approval. | | |
| 5 | Public works bidding. | | |
| 6 | Economic documentation for construction works. Particularities of prices in constructions. | | |
| 7 | Phases in forming the price for construction works. | | |
| 8 | Pre-estimation. List of quantities. Resources lists. | | |
| 9 | Unit prices for estimation articles: materials, workforce, equipment | | |
| 10 | Evaluations for transport costs, manual or mechanized handling of materials. Alternative methods for estimation unit prices. | | |
| 11 | Estimations in construction works. Estimations softs: INTELSOFT. | | |
| 12 | Workforce norms: deffinition, types, time and production norms. | | |
| 13 | The structure of the norms. Gouvernamental norms. Local norms. | | |
| 14 | Combined norms | | |
| 8.2. Applications (seminary/project) | | Teaching methods | Observations |
| 1 | Pre-estimation in constructions - presentation | Application | |
| 2 | Pre-estimation of foundations | Application | |
| 3 | Pre-estimation of the substructure | Application | |
| 4 | Pre-estimation of walls | Application | |
| 5 | Pre-estimation of beams | Application | |
| 6 | Pre-estimation of slabs, roof | Application | |
| 7 | Pre-estimation of finishings | Application | |

Bibliography:

ANASTASIU L. – *Managementul lucrărilor de construcții (II)- Note de curs*
 ANASTASIU L. – *Managementul lucrărilor de construcții (II)- Îndrumător de laborator*
 Andreica M., Stoica M., Luban F. – *Metode cantitative în management*, Ed. Economică, 1998
 Gavrilă T. – *Managementul general al firmei, studii de caz*, Ed. Economică, 2004
 Hossu T., Alexe, Blaga – *Managementul firmelor de constructii*, Casa cărții de știință, 2001
 Cole G. A. – *Management, Teorie și practică*, Ed. Știința, 2004
 Lessel W. – *Managementul proiectelor, Cum să planificăm eficient proiecte*, Ed. All, 2007



9. Corroborating the content of the syllabus with the expectations of the epistemic community representatives, professional associations and employers belonging to the program area

The acquired competences will serve the employees who will work in design or manufacturing companies in constructions (site or supply).

10. Evaluation

| Type of activity | 10.1 | Evaluation criteria | 10.2 | Evaluation methods | 10.3 | Ratio on the final mark |
|--|------|------------------------------|------|----------------------|------|-------------------------|
| Course | | Solving 2 theory subjects | | Written test – 1.5 h | | 40% |
| Applications | | Solving a Unit price problem | | Written test – 0.5 h | | 40% |
| Project | | Delivery of the project | | Project evaluation | | 20% |
| 10.4 Minimum standards of performance | | | | | | |
| Evaluating the project with min. 6. | | | | | | |
| Solving 1 theory subject and solving the problem | | | | | | |

Date of completion
Sept. 2016

Responsible with the discipline
Assoc.prof. PhD Livia ANASTASIU

Responsible with the course
Assoc.prof. PhD Livia ANASTASIU

Approval in the dept.
Sept. 2016

Chief of department
Assoc.prof. PhD Claudiu ACIU