| \leq |
|-----------|
| = - |
| Ω |
| |
| |
| α |
| |
| N |
| 0 |
| Ω |
| ÷ |
| \supset |
| α |
| |
| ≥ |
| } |
| ≥ |
| \geq |
| ·: |
| _ |
| tρ |
| Ξ |
| _ |
| |

| Facult | ty of Civil and En | vironmental Engineering | I | | • | , |
|---|---|---|-------------------------------------|-------------------------------|-----------------------------|----------------------------------|
| | | STUDY MODULE D | ESCR | IPTION FORM | | |
| Name of the module/subject | | | | | Code 1010115141010110109 | |
| Field of study | | | (ge | (general academic, practical) | | Year /Semester |
| | | tramural Second-cycle | , | (brak) | | 2/4 |
| Elective path/specialty | | | Su | Subject offered in: | | Course (compulsory, elective) |
| Structural Engineering | | | | Polish | | obligatory |
| Cycle of study: | | | Form of study (full-time,part-time) | | | |
| Second-cycle studies | | | | part-time | | |
| No. of h | iours | | | | | No. of credits |
| Lectur | re: - Classes | s: - Laboratory: - | Pro | ject/seminars: | 12 | 1 |
| Status o | of the course in the study | program (Basic, major, other) | | ersity-wide, from anothe | er field) | |
| (brak) (brak) | | | | | | ak) |
| Education areas and fields of science and art | | | | | • | ECTS distribution (number and %) |
| Resp | onsible for subj | ect / lecturer: | | | | |
| ema tel. Fac | ab. inż. Maciej Szumigali: maciej.szumigala@ 061 665 2401 ulty of Civil and Enviro Piotrowo 5 60-965 Poz | put.poznan.pl onmental Engineering | | | | |
| Prere | equisites in term | s of knowledge, skills an | d soci | al competencie | s: | |
| 1 | Knowledge | Advanced knowledge of the stre structures, reinforced concrete s | 0 | | | • |
| 2 | Skills | The ability to acquire information from all sources, prepare a full project documentation of various buildings. | | | | |

Social Awareness of the need to broaden their skills and taking a major responsibility in their future careers.

Assumptions and objectives of the course:

Gaining ability to broaden knowledge through reading the science and technology press, presentation of the acquired knowledge and the results of their own work in public, participation in public discussion.

Study outcomes and reference to the educational results for a field of study

Knowledge:

- 1. Knows the principles of analysis, design and dimensioning elements of buildings [K_W02]
- 2. Knows classification and scope of supporting computer programs ... [K_W08]
- 3. Knows the technical conditions of designing buildings and their components [K_W014]

Skills:

- 1. Can make the evaluation and ranking of any loads acting on buildings [K_U01]
- 2. Can perform static, dynamic and stability analysis of buildings [K_U04]
- 3. Can design elements and their connections in complex construction projects $\,$ [K_U03]
- 4. Can define a computer model of the structure and analyze it [K_U06 K_U13]

Social competencies:

- 1. While realizing certain task can work independently and in a team [K_K01]
- 2. Is responsible for the accuracy of the results of own work [K_K02]
- 3. Complements and extends knowledge in the field of modern processes and technologies independently [K_K03]

Assessment methods of study outcomes

Faculty of Civil and Environmental Engineering

Receiving credit for seminar on the basis of:

- Assessment of the presentation on the technical topic,
- Assesment of presentation of own graduate work,
- Participation in the discussion

Course description

Reminding about general rules for carrying out the final exam and the preparation of a graduate work.

Searching for an interesting topic from scientific - technical literature and developing it by every student and presenting it in the form of public presentation.

Preparation and presentation of the presentation of own graduate work.

Participation in the public debate after the presentation of the results of their own work and the work of other graduates.

Basic bibliography:

- 1. Technical Books in line with the theme of work
- 2. PN and EC

Additional bibliography:

1. Polish and European technical standards and construction

Result of average student's workload

| Activity | Time (working hours) |
|----------|----------------------|
| | |

Student's workload

| Source of workload | hours | ECTS |
|----------------------|-------|------|
| Total workload | 27 | 1 |
| Contact hours | 12 | 1 |
| Practical activities | 15 | 1 |