Załącznik nr 1
do Uchwały Senatu Nr …/2021
Państwowej Wyższej Szkoły Zawodowej w Elblągu
z dnia 31 sierpnia 2021r.

**PWSZ w Elblągu**
**INSTYTUT POLITECHNICZNY**

# PRZEDMIOTY WYBIERALNE

**Kierunek: BUDOWNICTWO**
**Studia pierwszego stopnia - STACJONARNE**

| L.p. | Nazwa przedmiotu obieralnego | L. egz. | ECTS | Ogólnie liczba godzin | w tym w | w tym ć | w tym l | w tym p/s | sem I w | sem I ć | sem I l | sem I p/s | sem I e | sem I ECTS | sem II w | sem II ć | sem II l | sem II p/s | sem II e | sem II ECTS | sem III w | sem III ć | sem III l | sem III p/s | sem III e | sem III ECTS | sem IV w | sem IV ć | sem IV l | sem IV p/s | sem IV e | sem IV ECTS | sem V w | sem V l | sem V p/s | sem V e | sem V ECTS | sem VI w | sem VI ć | sem VI l | sem VI p/s | sem VI e | sem VI ECTS | sem VII w | sem VII ć | sem VII l | sem VII p/s | sem VII e | sem VII ECTS | sem VIII w | sem VIII ć | sem VIII l | sem VIII p/s | sem VIII e | sem VIII ECTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Rozdział zajęć programowych na semestry | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Blok A.6** (*humanistyczne i społeczne - 2 ECTS*) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Przedmiot humanistyczny lub społeczny I* | | 2 | 30 | 30 | | | | 30 | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Przedmiot humanistyczny lub społeczny II* | | 2 | 30 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | | | 2 |
| **Blok C.18.1 (2 ECTS)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Akustyka | | 4 | 45 | 15 | | 15 | 15 | | | | | | | | | | | | | 15 | | 15 | 15 | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Układy sterowania w budynkach | | 4 | 45 | 15 | | 15 | 15 | | | | | | | | | | | | | 15 | | 15 | 15 | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Blok C.18.2 ( 2 ECTS)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Metody komputerowe w mechanice budowli | | 2 | 30 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | 2 | | | | | | | | | | | | | | | | | | | |
| 2 | Metody numeryczne w dynamice konstrukcji | | 2 | 30 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | 2 | | | | | | | | | | | | | | | | | | | |
| **Blok C.18.3 (2 ECTS)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Komputerowe wspomaganie projektowania konstrukcji prętowych | | 2 | 30 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | 2 | | | | | | | | | | | | | |
| 2 | Komputerowe wspomaganie projektowania konstrukcji powierzchniowych | | 2 | 30 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 30 | | | 2 | | | | | | | | | | | | | |
| **Blok C.18.4 (5 ECTS)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Budowle i roboty ziemne | | 5 | 52,0 | 22 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 22 | | | 30 | | 5 | | | | | | | | | | | | | |
| 2 | Remonty i modernizacja budynków | | 5 | 52,0 | 22 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 22 | | | 30 | | 5 | | | | | | | | | | | | | |
| 3 | Konstrukcje drewniane | | 5 | 52,0 | 22 | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 22 | | | 30 | | 5 | | | | | | | | | | | | | |
| **Blok C.18.5 (2 ECTS)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Architektura i urbanistyka | | 2 | 30 | 15 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | 15 | | 2 |
| 2 | Oddziaływanie inwestycji budowlanych na środowisko | | 2 | 30 | 15 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | 15 | | 2 |
| **Blok C.18.6 (3 ECTS)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Wprowadzenie do konstrukcji sprężonych | | 3 | 40 | 15 | | | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | 25 | | 3 |
| 2 | Nowoczesne kierunki w technologii betonu | | 3 | 40 | 15 | | 15 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | 15 | 10 | | 3 |
| **Blok C.18.7 (3 ECTS)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Advanced materials for reinforcing and strengthening concrete structures | | 3 | 30 | 15 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | 15 | | 3 | | | | | | | | | | | | | |
| 2 | Structural dynamics: fundamentals and applications to civil engineering | | 3 | 30 | 15 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | 15 | | 3 | | | | | | | | | | | | | |
| 3 | Bases of metal Structures | | 3 | 30 | 15 | | | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | | 15 | | 3 | | | | | | | | | | | | | |

**Obowiązuje od: 01-10-2021 r.**

**Zmiany:**
**29-01-2009 25-09-2012**
**15-05-2008 29-06-2018**
**29-05-2014 18-01-2018**
**17-06-2010 24-06-2021**

**Zatwierdzony**
**przez Senat PWSZ w Elblągu**
**w dniu 31.08.2021 roku**

**REKTOR**

**Z każdego bloku przedmiotów wybieramy taką liczbę przedmiotów, aby uzyskać wymaganą liczbę punktów ECTS**
***) Przedmioty do wyboru (lista przedmiotów w załączeniu)**