

# Transilvania University of Braşov, Romania

## Study program: Raiways, Roads and Bridges

Faculty: Civil Engineering  
 Study period: 4 years (bachelor)  
 Academic year structure: 2 semesters (14 weeks per semester)  
 Examination sessions (two): winter session (January/February)  
 summer session (June/July)

Courses per years (C= course; S = seminar; L = laboratory; P = project)

3<sup>rd</sup> Year

No. crt.	Course	Code	5 <sup>th</sup> Semester					6 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
1	Dynamics of structures and seismic engineering	DS05	3	2	1		6					
2	Geotechnics	GT05	3		2		5					
3	Timber bridges	PL05	2	1			4					
4	Reinforced and prestressed concrete II	BAP05	2	2			5					
5	General economy	EG05	1				2					
6	Basics of bridge design	BPP05	2	1			3					
	Structures for bridges	SPO5										
7	Hydrology and hygrogeology	HH05	1	1			2					
	Hydraulic	HDR05										
8	Roads I	DRU05	2				3					
9	Roads I - Project	DRUP05				2	2					
10	Reinforced concrete bridges	PBA06						3				4
11	Reinforced concrete bridges - Project	PBAP06									2	2
12	Roads II	DRU06						2		2		4
13	Roads II - Project	DRUP06									2	2
14	Steel constructions	CMT06						2		2		3
15	Foundations	FD06						3				4
16	Foundations - Project	FDP06									3	2
17	Finite element method	MEF06						2		2		3
18	General course of constructions	CGC06						2				2
19	Construction machinery and equipment	MIC06						1				2
20	Practice (90 hours/semester)	PS06										2

4<sup>th</sup> Year

No. crt.	Course	Code	7 <sup>th</sup> Semester					8 <sup>th</sup> Semester					
			C	S	L	P	Cred	C	S	L	P	Cred	
1	Reinforced concrete bridges II	PBA07	3				4						
2	Reinforced concrete bridges II - Project	PBAP07				2	2						
3	Steel bridges I	PM07	2				3						
4	Steel bridges I - Project	PMP07				3	3						
5	Railways I	CF07	2		2		5						
6	Computer aided design	PAC07	2		1		3						
	Railway suprastructures for high velocities	SVM07											
7	Tunnels and metropolitan	TM07	2		1		3						
	Underground construction	CS07											
8	Organizing of road, railway and bridge construction works	ORG07	2		2		5						
	The technology of road, railway and bridge construction works	TLC07											
9	Environmental engineering	IM07	1	1			2						
	Risk assessment	ER07											
10	Special technologies for railway works	TCF08						2	1				3
	Special technologies for road works	TD08											
	Special technologies for bridge and tunnel works	TP08											
11	Steel bridges II	PM08						2					3
12	Steel bridges II - Project	PMP08										2	2
13	Roads III	DR08						2					2
14	Roads III - Project	DRP08										2	2
15	Maintenance and rehabilitation of roads and railways	IDC08						2					2
	Maintenance and rehabilitation of concrete bridges	IPB08											
	Maintenance and rehabilitation of steel bridges	IPM08											
	Maintenance and rehabilitation of streets	IST08											
16	Railways II	CF08						3					4
17	Railways II - Project	CFP08										3	2
18	Constructions management	MC08						2	2				4
19	Diploma specialised project	EPD08										4	4
20	Practice – diploma project completion (60 hours/semester)	PRD08											2