



DESIGNING ROADS, HIGHWAYS AND MOTORWAYS

Assignment for exercise (Academic year 2023 – 2024)

STUDENT		
Family name:	First name:	Group:

Complete a design project of two-lane road from point A to point B set in a topographical map in scale of 1 : 1000, including following parts:

- Technical report including calculations of all horizontal and vertical curve parameters, chainage and crossfall
- General plan in scale 1 : 1 000
- Longitudinal profile in scale 1 : 1 000 / 100
- Tabulated longitudinal profile
- Typical cross-section in scale 1 : 50
- Characteristic cross-sections in scale 1 : 100
- Calculation of earthworks volumes
- Mass haul diagram

Elevations of points A and B are equal to elevations of contour lines on which are placed (does not apply in case, when the maximum gradient given below would have to be exceeded because of this rule).

Road category / design speed [km/h]												Maximum gradient		
S 6,5			S 7,5			S 9,5			S 11,5			4,5 %	6 %	7 %
70	80	90	70	80	90	70	80	90	70	80	90			

Lecturer of courses and exercises taught in English..... Polina **ZAYATS**, MSc
 Head of the departmentMartin **JACURA**, MSc PhD