

# ACCREDITATION SELF EVALUATION REPORT

Prishtinë, 2020

# TABLE OF CONTENT

1. In	ntroduction	3
1.1	A brief overview of the institution and program in evaluation	3
Visi	on	3
Miss	sion	4
Valı	ues	5
1.1.	1 Governance of the Academy	6
1.1.2	Organization of the managerial decision-making structures in the Academy	6
1.1.3	3 Organization of academic decision making structures	7
Stud	lents	8
Insti	itute	9
Adn	ninistration	10
Orga	anization and learning spaces	10
2.	Program Evaluation	12
2.	1. Mission, objectives and administration	13
2.	2. Quality management	20
2.	3. Academic staff	25
2.	4. Content of the educational process	30
2.	5. Students	36
2.	6. Research	39
2.	7.Infrastructure and resources	43
2.8	Appendix	47
2.9	Course descriptions	47

#### 1. Introduction

# 1.1 A brief overview of the institution and program in the evaluation

Tempulli Academy was registered on October, 13<sup>th</sup> 2020, as a Higher Education Institution in Kosovo. Tempulli Academy, although as a new institution, has a long tradition of Tempulli since 1992, and that as a centre of training and education candidates for drivers. As a result of the commitment and needs of the market, this centre has evolved over the years. It has grown and developed with academic and professional programs within the Tempulli College.

However, after two consecutive unsuccessful accreditation processes (as stipulated in the Law on Higher Education in Kosovo), Tempulli college has stopped its academic activities. As a result of these circumstances, the shareholders of Tempulli have decided to continue the tradition by registering the Tempulli (now as Academy) and starting the process to build and develop it as a new institution.

Based on what was said above, the Academy offers opportunities to new students to study in unique programmes and desired by the labor market. Through quality education, where the theoretical part will be supplemented with practical work, the Academy offers to the labour market relevant field experts.

#### **VISION**

A unique institution of higher education in the country and the region, with a focus on the development of professional research skills through the interconnection of innovative teaching, practical learning and scientific work for the benefit of the community.

In order to achieve its vision and fulfil its mission, Tempulli Academy intends to function based on the following values:

- Empowerment of Partnership Council consisting of competent and forward-looking professionals and entrepreneurs in the relevant fields (see the organizational chart of the institution);
- Reviewing the existing methodology of functioning and improving both in institutional and programme level;
- Investment in the training of academic staff;
- Quality assurance;
- Improve IT infrastructure to facilitate administrative processes and student services;
- Improvement of the quality of teaching by establishing IT labs and intelligent classrooms;
- Purchase anti-plagiarism software for verifying scientific works;

• Further, increase third party funding through donations, providing services to businesses and institutions, and through access to research funding.

#### **MISSION**

Qualitatively prepare students and trainees with relevant knowledge and skills to learn and research in order to lead a successful career as an active professional in the community.

Tempulli Academy contributes to the society through:

- Unique study programmes in higher education and applied sciences, the Kosovo's labour market:
- Advancement, creation and dissemination of the knowledge through scientific research with,
   the aim to improve the welfare of the population;
- Ensuring an environment which results with social mobility and personal development;
- Serves as a local partner for businesses and industry, local and central institutions, and the community;
- Implements the social dimension of Bologna and the Human Rights-based approach;

Furthermore, Tempulli Academy is continually engaged in a dynamic dialogue with economic and social partners to provide relevant educational and research services which results in a high ratio of employment among its graduates.

Tempulli Academy ensures that the vision and mission is recognized by the entire academic community within the Academy, through their involvement in any process of reviewing/ drafting and approval of policies, regulations, and other relevant documents. The purpose of their involvement in these processes is not only the formal recognition of these documents, but also the awareness of each member of the academic community about the roles, duties and responsibilities that each of them carries for the overall accomplishment of the mission.

Furthermore, when approving the Strategic Plan, the Tempulli Academy has also developed a communication strategy, which provides for the compilation of information materials for stakeholders, including partners, the community, and businesses. For this purpose, brochures have been compiled, the development plan has been published on the website, and information sessions have been organized within the Academy to mobilize staff, administration, students and partners to implement the planned measures as set out in the plan.

To fulfil its mission, the Tempulli Academy has set some strategic objectives for the next five years.

The planning working group has determined that for each area of intervention there should be a strategic objective as follows:

- Establish effective management and administration to support academic and research processes;
- Provide added support for transparent and participatory quality assurance procedures;
- Improving working conditions and establishing a culture of excellence, innovation and the use of new technologies in order to develop the quality of educational and research services.

Performance indicators are provided for each of the measures, for which they generate data regularly in order to measure the progress of the implementation of the Strategic Plan.

The measures are part of the annual and semester work plan for each managerial, academic and administrative member within the Tempulli Academy, in order to ensure that every step taken contributes to the fulfilment of the mission and vision of the Tempulli Academy.

#### **VALUES**

- Value: The academy has an approach to others which is reflected in the way they value their
  contribution. The Academy shows respect in all its relationships with stakeholders, including
  the relationship between management staff and the way it communicates with partners, funders
  and provides services to citizens;
- Integrity: The Academy will gain trust and respect by being professional, ethical, honest and impartial. Honesty and sincerity in all relations and communications of the Academy ensures that the information is on time and accurate;
- **Inclusion**: The Academy is committed to diversity, equality of opportunity, and social justice for all, appreciating differences and welcoming them;
- Cooperation and partnership: The Academy values partnership and collaboration as the most
  effective way to improve the quality of its services, is open to academic and scientific
  cooperation, with public and private institutions, local and international, in areas and projects
  of common interest, always guaranteeing the free expression of ideas and providing staff and
  students with equal opportunities for work and study;
- **Innovation**: The Academy is open to change, adaptation, pro-active action and innovation in its joint work to find new methods to meet challenges in an ever-changing environment;

• **Perfection:** The Academy has excellent expectations for itself, our students and our communities; therefore, it aims to continuously improve the quality of its services based on the principle of Academicism, transparency and independence.

In this evaluation process, the Academy has applied with three programs of which two are in the process of re-accreditation, while one program is new, and they are

- Insurances and Management of Damages from Accidents, BA;
- Transport Engineering Road Infrastructure, BSc;
- Traffic Engineering and Road Safety, MSc.

#### 1.1.1 Governance of the Academy

The highest governing authority of the Academy is the Steering Council which is chaired by the chairman of the Steering Council. The Steering Council, based on the Statute of the Academy, consists of five (5) voting members, of which two members are nominated by the founder, two members are nominated by the Academic Council and one member is nominated by the Student Parliament. The Director of the Academy, the Director of the Institute and the Secretary are ex-officio members of the Steering Council without the right to vote. Until the internal elections in the Academy are taken place, the student elections and that of the academic and administrative staff, the Steering Council members are appointed temporarily by the Founder (shareholder).

#### 1.1.2 Organization of the managerial decision-making structures in the Academy

Based on the Law on Higher Education and the Statute, the Academy has separate managerial responsibilities such as Steering Council, Management headed by the Director of the Academy (who is responsible for organizing and managing the academic processes of the Academy) and the Director of the Institute (who is responsible for organizing the commercial and research affairs of the Academy). Also, a very important part of the management structures is the administration which is led by the General Secretary.

#### **1.1.3** Organization of academic decision making structures

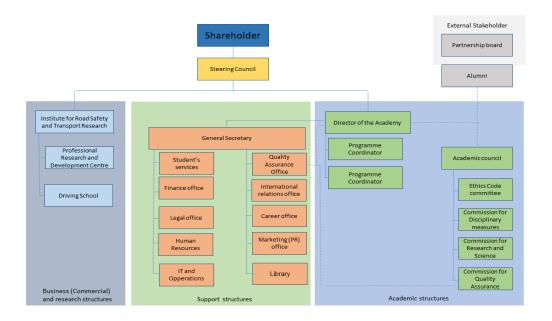


Figure 1. The organizational chart of the managerial decision-making process at the Academy

**The Academic Council** is the highest decision-making body of the Academy. The Steering Council consists of five (5) voting members with a four-year term:

- Two members are nominated by the shareholders (one is a member of Partnership Council while the other from Civil Society Organizations),
- Two members are nominated by the Academic Council and
- One Student member is nominated by the Student Parliament.

The Director of the Academy, the Director of the Institute and the Secretary are ex-officio members of the Steering Council without the right to vote. The Steering Council is chaired by the Chairman, who is elected by the members of the Steering Council.. The work of the Steering Council is regulated by a separate regulation known as the Regulation of the Steering Council.

All current members of the Steering Council of the academy are provisional until the Academy organizes its elections.

**The Director of the Academy** is the main managing authority of the Academy and is appointed by the Steering Council. He is responsible for the effective and orderly work of the academic aspects of the Academy and for its management according to the policy set by the Steering Council.

The Academic Council is the highest academic decision-making body which deals with all academic issues related to the teaching process, academic staff and students, and operates on the basis of their regulation of procedure.

The members of the Academic Council are elected through the electoral process in accordance with the regulation for the organization of elections in the Academy. Based on the provisions of the Statute of the Academy, the Academic Council consists of these eligible members:

- Program Coordinators;
- Two elected members from the ranks of the academic staff;
- A member elected by the administration staff;
- A representative from the student parliament;
- The Secretary and Director of the Academy are permanent members of the Academic Council, without the right to vote.

The Academic Council is chaired by the Chairman of the Council, who is elected by the Academic Council by a majority vote of its members from the proposed candidates.

Given that the Academy was established in October, the members of the Academic Council have been appointed by the Governing Council in accordance with the Statute of the Academy.

The Academy, in addition to the Steering Council and the Academic Council, also has **Program** Committees which deal with issues of the teaching process.

Program committee members are:

- Program Coordinator;
- All teaching staff who teach in the respective program;
- A member from the ranks of students, elected by the Student Parliament of the Academy.

All governing authorities of the Academy exercise their activity on the principle of majority voting unless otherwise provided in the Statute. The procedure for the election of governing bodies is done in accordance with the regulation on election procedures in the Academy. All decisions of the bodies of the Academy are published on the website of the Academy.

#### **Students**

Students have the right to establish student organizations to which all students can belong. Each student organization has its own statute that is approved by its members in accordance with the general

regulations issued by the Steering Council, that includes the principles of equal opportunities and nondiscrimination.

Student interests will be represented within the Academy through the Student Parliament. The members of the Student Parliament are elected during the student election process, and consists of representatives of student organizations that have emerged victorious in the Student Elections according to the priority lists of candidates published by each student organization at the beginning of the election campaign. The student election process is regulated by the Statute of the Academy and the Regulation on Student Elections.

Although the Academy does not yet have enrolled students, it has built the legal basis which guarantees student participation in all decision-making bodies, such as:

- Steering Council with one representative;
- Academic Council with one representative;
- Program Committee with one representative;
- Quality Assurance Committee with one representative;
- Ethics Committee with one representative;
- Disciplinary Commission with one representative.

#### Institute

As a very important organizational part of the Academy is the Institute for Road Safety and Transportation Research (henceforth referred to as The Institute) which is led by the Director of the Institute. The Institute consists of:

- Center for research and professional development (CRPD), which provides Infrastructure for the realization of scientific research, training programs and professional training / professional certification;
- Driving school which trains candidates for driving license.

The Institute is keenly focused on research and commercial projects that provide a revenue diversity for the Tempulli Academy. Also, through the Institute, the Academy enables students to carry out practical work.

#### Administration

Also a very important part of the management structures is the administration which is led by the General Secretary of the Academy. The administrative staff is selected on the basis of a competition. Each official of the Academy based on the regulation on job systematization has in detail described the duties and responsibilities. At the same time, the duties and responsibilities of the administrative staff are in line with the signed contracts while their qualification is in line with their duties. It is also very important that in each governing body of the Academy it is represented by the administration.

#### Organization and learning spaces

The Academy is located in a relatively new building, which has a very convenient, clean and attractive environment for students and staff, both in terms of learning conditions and social spaces. The Academy is located about 300 meters from the city centre, where it provides very easy access for students and staff of the Academy. The building has over 1260 m<sup>2</sup> including the spaces for The Institute.

The laboratories of the Institute can be used for student's practical work and for commercial activities of the Academy.

The building was purchased by Academy and therefore there is no need to pay rental costs. As a result, the Academy enjoys the freedom to invest all the revenue into

- 1. Equipment and tools;
- 2. Expanding of the building;
- 3. Enriching the library;
- 4. Building of laboratories etc.

The library is an important unit that supports the academic and teaching process; therefore, special attention has been paid to this sector for many years. The mission of the Library is to provide services and materials in order to meet the needs of students, professors and other staff.

The library as a unit of this institution is at the service of all users of the Academy and for all other affiliated users. Users have several ways of accessing different literature in the Library:

- a) Physical Library;
- b) Electronic library (electronic catalog) and online academic and scientific journals.

The Academy has now entered into contracts with a total of 27 academic staff, of which 13 are full time with the Academy as well as 14 teachers with secondary employment (part-time).

The academy has a good infrastructure, with about 1260 m<sup>2</sup>. The separate spaces for organizing the lesson are presented in the table below.

Item	Number
Total space	1260 m <sup>2</sup>
Laboratory space	114 m <sup>2</sup>
Total number of computers	80
No. of books (titles) in library	1862
Reading spaces per students	50
Number of classrooms	5

Furthermore, the Academy has signed an agreement with the National Library where students and staff can have access to more the 700 000 book titles and other literature as well as access to electronic resources of the National Library.

The practical part of the teaching will be realized in the Institute which is equipped with laboratories and adequate equipment for the realization of practical teaching/learning processes in the field of traffic and transport and other fields of applied sciences. The Academy has also concluded cooperation agreements with several institutions/companies in which in addition to other activities, it will be possible to realize practical learning for students.

# 2. Program Evaluation

# Study Program Data:

Name of the Institution:	Tempulli Academy
Faculty/Department:	BSc Transport Engineering and Infrastructure
Main campus and/or branch:	Main Campus
If applying for a Branch, please specify the branch:	N/A
Name of the study program:	BSc Transport Engineering and Infrastructure
Responsible person for the Study Program:	Dr.Sc. Gëzim Hoxha
Accreditation/Reaccreditation:	Accreditation
Level of qualification according to the National Qualifications Framework	Level VI
Academic degree and diploma title in full and abbreviated form:	BSc Transport Engineering and Infrastructure
Number of ECTS credits (total and per year):	180
Profile of the Study program (Specializations):	1.Traffic and Transport Engineering;  2. Infrastructure Engineering (road, railway and hydrology);  3. Urban Planning and Mobility

Erasmus Subject Area Codes (ESAC)	06.9
Study form:	Full Time and Part Time
Minimum duration of the study	3 years
Number of students accepted	90
Permanent Scientific/Academic staff for the study program (at least 3PhD)	Dr. Sc. Fitim Shala; Dr. Sc. Eflorim Hajra; Dr. Sc. Ema Berisha-Krasniqi, Dr. Sc. Gëzim Hoxha,

# 2.1. Mission, objectives, and administration

The three-year program at Tempulli Academy "Transport Engineering and Infrastructure", will provide students with contemporary theoretical and practical knowledge in the field of Traffic and Transport Engineering; Infrastructure Engineering (road, railway and hydrology); Urban Planning and Mobility.

#### Mission

The mission of the program is to develop knowledge, skills and academic and scientific skills through interactive learning by linking theoretical knowledge with practical knowledge and skills in the field of transport and infrastructure, in solving concrete issues in cooperation with relevant institutions and relevant industry actors.

The mission of the program is in full harmony with the mission of the Academy "To qualitatively prepare students and trainees with the relevant knowledge and skills to learn and research in order to lead a successful career as an active professional in the community."

Based on the Law in force on driver's license of the Republic of Kosovo, for the establishment of a new Driving School, it is required that the Lecturers who are working on this business must have completed the study program of Transport and Infrastructure Engineering, at the Bachelor Level. <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> https://gzk.rks-gov.net/ActDocumentDetail.aspx?ActID=12516

The increase of the number of vehicles in traffic in recent years in Kosovo has significantly increased the number of traffic accidents. Based on data from the Kosovo Agency of Statistics<sup>2</sup> and the Roadside Safety Performance Audit Report <sup>3</sup>", it is noted that from 2010 to 2020, Kosovo has had an increasing trend in all types of accidents. The increasing trend of accidents has increased the need for experts who can make professional expertise regarding the causes of accidents for courts, insurance companies and other actors. Planning of road infrastructure and installation of signage is very important to be done by professional experts in the relevant field, a fact which would contribute to reducing accidents.

Since so far in Kosovo, the trend of accidents is increasing, the market in this area offers wide employment opportunities.

On the other hand, meeting the needs of the labor market with employees who have adequate skills and competencies required, in enterprises including vehicle control centres can affect the reduction of traffic accidents.

In the National Development Strategy (NDS) 2016-2021<sup>4</sup>, Kosovo is worse than the region in terms of manpower skills, as there is a lack of consistency between the skills and competencies acquired in a study / training program and those required by labor market.

The address of the problem in question can be found in the "Strategic Plan of Education in Kosovo 2017-2021"<sup>5</sup>, in the "Economic Reform Program 2019-2021"<sup>6</sup>, and in many other reports that address this phenomenon, and as a measure that will improve this The gap is seen in the creation of the link between the skills acquired in education and the demands of the labor market, which will directly contribute to students finding easier practical work during their studies or full engagement after their studies. Therefore, such an action is defined as a strategic objective in the two aforementioned strategies for development and education.

 $<sup>^2\</sup> https://askdata.rks-gov.net/PXWeb/pxweb/sq/askdata/askdata\_Transport\_Annual\%20 indicators/tr05.px/?rxid=6d1b5bdf-adb8-41f3-b199-be3a38fd749f$ 

<sup>&</sup>lt;sup>3</sup> http://www.zka-rks.org/wp-content/uploads/2019/12/Raporti-Auditimit-Siguria-ne-trafik-1.pdf

<sup>&</sup>lt;sup>4</sup> Zyra e Kryeministrit (2016),"Strategjia Kombëtare për Zhvillim (2016-2021 (SKZH)", <u>Strategjia Kombetare per Zhvillim 2016-2021 Shqip.pdf (kryeministri-ks.net)</u>

<sup>&</sup>lt;sup>5</sup> Ministria e Arsimit, Shkencës dhe Teknologjisë(2016), "Plani Strategjik i Arsimit në Kosovë 2017-2021", <u>Microsoft Word - 2016.09.29.</u> PSAK 2017-2021 (Revised). CLEAN (kryeministri-ks.net

<sup>&</sup>lt;sup>6</sup> Qeveria e Kosovës (2019), "Programi i Reformës Ekonomike 2019-2021", <a href="https://mf.rks-gov.net/desk/inc/media/4FC9C8D0-8ADF-4DD1-97B8-BB2DD36150C3.pdf">https://mf.rks-gov.net/desk/inc/media/4FC9C8D0-8ADF-4DD1-97B8-BB2DD36150C3.pdf</a>

Practice-oriented education and related to the labor market, to contribute to the socio-economic development of the country, this is also a strategic goal of the Academy.

This analysis highlights the need for a program that would form new staff in the field of engineering, transport, infrastructure, roads, urban planning, supplemented with additional knowledge of business management and operation, in full compliance with the requirements of the market, is evident and would directly affect the overall development of the country.

During the cooperation contacts between the Academy and businesses, the need has been raised by businesses for experts in the field of Transport Engineering and Infrastructure in the labor market, the Program Coordinator together with the teachers of the Academy, discussed together about the business proposal and agreed that the program coordinator initiate procedures for further approval (Appendix 2A. List of Participation from the meeting of the Program Committee).

The Program Coordinator then forwards this proposal to the regular meeting of the Teaching / Scientific Council of the Academy, where the Draft Decision is approved to start preparing a new program in the field of Transport Engineering and Infrastructure.

After the approval of the proposal by the Council of the Academy, the proposal for the new program was approved by the Steering Council of the Academy, takes a decision to start the application procedures for Accreditation of this new program (Study program: Bachelor of Science - Transport Engineering and Infrastructure.

Based on these steps, the process of compiling the study program, syllabi and other necessary documents has begun.

To give a more accurate orientation to the program, we have continued meetings with businesses that deal primarily with traffic expertise and technical control of vehicles to specifically explore the skills and competence needs of employees and the community requirements for their services. This is to build the foundation of a triangular link: program-companies-community, links that will work throughout the life of the program. In the next meeting with businesses, the learning outcomes were presented (Appendix 2B list of participants and meeting extract) and businesses were encouraged to give ideas and suggestions about the program.

Business representatives have provided important inputs regarding the learning outcomes that the student needs to be successful in applying their knowledge in practical work. They also recommended that the "Transport Engineering and Infrastructure" Study Program be profiled in the following three areas: "Traffic and Transport Engineering"; "Infrastructure Engineering (road, railway and hydrology)", "Urban Planning and Mobility".

During the design of the program, the Academy has included the requests of business representatives which contribute to the development of student's skills, as follows:

- Increasing traffic safety;
- Traffic flow management;
- Analysis and selection of adequate forms of traffic control;
- Public transport;
- Road infrastructure;
- Promoting sustainable mobility;
- The role of road signs;
- Parking management;

Environmental Protection.

The working group worked together to formulate learning outcomes, assign program subjects, distribute them through semesters and syllabi in ongoing consultation with all stakeholders and these developments were presented at the program committee meeting. Business proposals were prioritized throughout the program design process.

After two meetings and consultations with businesses, the common conclusion was reached that the program of Transport Engineering and Infrastructure and its specializations, is the program that meets the demands of the market.

The program committee has held a meeting where the above data have been analysed and some of the objectives of this program have been set.

The drafted program was presented to the partner council of the respective field and the learning outcomes of this program were discussed as well as the development of these skills with specific subjects.

In the further developments of the program, the drafting of the teaching results as well as the curriculum of the program, have participated all the academic staff of the Academy.

From this meeting came conclusions and recommendations, which were taken into account during the draft of the program.

Also, the study program of Transport Engineering and Infrastructure and its three specializations has been developed in harmony with the National Qualifications Framework as well as at the elevated level of skills and competencies of graduates to apply knowledge, understanding, and problem-solving skills in new or unfamiliar environments within a broad context of the multidisciplinary field of study.

Most of the courses included in the program are built in modular format by combining modules for combining skills within a course. The program is developed with a good structural flow of courses distributed over six semesters and based on the experience of the Faculty of Traffic Sciences from University of Zagreb.

Teaching and learning will be done using modern technologies through smartboard technology and IT classrooms, complemented by the scientific approach to problem-solving, both theoretical (through case study analysis) and practical (at our laboratories and in enterprises/businesses).

In addition to theoretical teaching, the program develops students' skills through the practical part which is realized in the Tempulli Academy and various companies with which the Academy has cooperation agreements. In order to increase practical work skills, the Academy has signed a considerable number of agreements with companies and institutions and has prepared the necessary regulations and manuals for the realization of practical learning in the company.

The Academy has several regulations which regulate academic procedures and policies. These regulations are posted online on the website. Except for online publications, the Tempulli Academy organizes staff meetings and notifies them for the updates of the new regulations.

Some of them are presented below:

- Regulation of Code of Ethics;
- Regulation on Disciplinary Measures;
- Regulation on Quality Assurance;
- Regulation for Studies in the Academy;
- Regulation on Scientific Research;
- Regulation for Tutor;
- Regulation on Electoral Procedures in the Academy;
- Regulation for Alumni;
- Regulation on Mobility;
- Transfer Regulation;
- Rules and Procedure of the Board of Directors;
- Rules and Procedure of the Academic Council;
- Regulation on Cooperation;

- Rules and Procedure of the Program Committee;
- Regulation on Practical Work;
- Regulation on Academic Calling and Staff Selection;
- Regulation on the Allocation of Scholarships and Fees;
- Regulation for the Student Council;
- Manual for Scientific Publications;
- Student Handbook:
- Handbook for Staff;
- Regulation on Communication;
- Regulation for the Library;
- Career Centre Regulation;
- Partnership Council Regulation;
- Regulation on Archives;
- Calendar for Quality Assurance;
- Regulation on Performance Appraisal;

The Academy as a new institution is under construction of the legislative base which regulates the activities in the Academy. In accordance with standard 1.6, the Academy has adopted policies to review the regulations at least once every two years, in special cases the Academy will review or change the regulations even more often if it deems it necessary.

For any development in the issuance of any new regulations or updates of existing regulations, the Academy keeps informed in a timely manner all academic and administrative staff, as well as students through the Student Parliament and stakeholders.

After the new recruits, the selected staff when joining the Academy, participates in the activity called (notification week) where they are introduced to the rules and procedures of the Academy, access to and use of the Student Electronic Management System (SEMS), a system that the Academy has to administer the student's records, etc.

The Academy also has a Personnel Manual, which is provided to new academic staff during the announcement week. On the other hand, new students when enrolling in the Academy are informed about the rules that are relevant to them, through the "Student Manual", and how to access the documents that define these rules.

For program management purposes, the Academy has established the following Key Performance Indicators (KPIs) for the study program:

- Graduate satisfaction where graduates will be contacted and surveyed for their satisfaction
  with the program, how useful the program was in their employment, did they get the right skills
  as required by the employer, etc.
- Employer Satisfaction After researching with graduates, the Academy will identify the businesses in which the graduates are employed and survey them to their satisfaction with the program (based on their experience with the graduates).
- Graduate employment a study with the program alumni will result in information on the employment rate.
- Student Satisfaction where every year (once a semester) they will be surveyed for satisfaction with the program, administration and staff of the Academy.
- Graduation rate will be generated by the administration of the Academy.

The student satisfaction survey is conducted by the Academy and the results are analyzed and shared with the program coordinator, programme committee, the general management of the Academy. Eventually, the graduation rate is calculated annually by the Academy administration and shared with the Program Committee, and the Academy management.

While for student satisfaction with the program, the research is conducted once a year, as this is the first time that the Academy offers the program, graduate satisfaction, employers, and graduation rate can be assessed only after the completion of the program with the first generation of students.

Through SEMS all data related to students, courses and programs are managed electronically including the exam management data. After each exam deadline, the exam results are analyzed and they are shared with the Program Committee and the management of the Academy.

The Academy has built a comprehensive learning process management system, creating and updating the files of each program staff. This means that each staff member will have a personal file (folder) that will record all activities undertaken by an academic staff. The file which will contain information such as: Teaching data, assessments (students, colleagues, deans, self-assessment), research and other

activities related to the academy, will be used to develop their development plan, such as and academic advancements etc.

After the completion of each exam period, statistical data are generated for student assessment and distribution of assessments. These are all analysed by the administration and shared with the Academy management.

The Academy in its statute and in all its policies takes into account the aspect of gender equality and in the case of employment also that of priority in equal circumstances with male competitors.

#### SWOT analysis for mission, objectives, and administration:

## A. Strengths

- Modern program in content and designed for the labor market needs in cooperation with businesses;
- Application of theoretical learning in practice through the cabinet possessed by the Academy and business internships;
- Professional staff.

#### B. Weaknesses

- Lack of space in the Academy for extracurricular activities;
- Lack of English Language knowledge by students and staff.

#### C. Opportunities

- Increasing the cooperation and awareness of businesses and their bigger involvement in the development of our programs;
- Connecting students with businesses by getting involved in the realization of practical work in industry.

#### D. Challenges

• Immigration of young people to seek employment in the outside world;

#### 2.2. Quality management

Program Transport Engineering and Infrastructure is reviewed together with the academic staff of this program. In the process of reviewing the program, initially, a meeting was held with all the academic

staff of the program where they defined the learning outcomes of the program and its objectives, then in the second meeting, the subjects were determined and distributed throughout the semesters.

Program design Transport Engineering and Infrastructure has flows in accordance with the processes provided by quality assurance regulations:

- The initiative was leaked by Academic Staff and businesses (in accordance with the regulation);
- The review and approval of the initiative is done by the bodies defined in the regulations (Program Committee, Teaching/Scientific Council and approved by the Steering Council);
- The working team consisting of the academic staff involved in the program, who have specializations in the relevant areas of the program, conducts continuous consultations with the academic staff of the Academy and with businesses to determine the objectives, learning outcomes, course plan and distribution of until they drafted the final version of the program;
- The drafting of the new program has been supervised and verified by the Quality Commission;
- Approval of the new program by the Scientific Teaching Council and the Steering Council of the Academy.

Similarly, during the process of realization of the study program, all mechanisms for quality assurance and improvement will be implemented.

For quality assurance purposes, the Tempulli Academy has adapted the following self-assessment mechanisms:

- Assessment from the students for the program;
- Student assessment for services and Tempulli Academy administration;
- Student assessment for Academic staff;
- Peer evaluation;
- Assessment by the manager;
- Self-assessment;
- Assessment by the academic staff, for the services and administration of the Academy;
- Assessment by Alumni;
- Assessment by Businesses.

All this information has been used to plan the development of the staff of the Academy in general as well as the individual of each staff.

During the planning of the program, the Academy has ensured that the information of all actors in the process is taken into account, both external and internal and not only the evaluations and self-evaluations of students and staff. From external actors who are mainly businesses, feedback is received on the programs offered and new ones and after other processes of program development or modification, the process goes through the final filters such as the Program Committee, the Teaching/Scientific Council, and the Steering Council of the Academy.

Through these mechanisms, the Academy will evaluate the contribution to education (teaching staff, student support, library, classrooms, etc.), the process (teaching methodology, teaching process, theory and practice, etc.) and the result (employment), etc.

The Academy is building a tradition in continuous quality assessment which will be carried out through adequate questionnaires depending on the objectives of the assessment. The review of the questionnaires is done by the Quality Assurance Commission.

The frequency and timing of quality assurance assessments which is done through mechanisms possessed by the academy are regulated by the annual quality assurance calendar.

Data collected from questionnaires with students are a regular part of the self-assessment process. They will be used by the management and programme coordinators of the Academy to identify and evaluate the performance of the academic staff as well as by the administration to evaluate the administrative, infrastructural aspects, etc.

The results of the evaluation of the program each year will be discussed in the program committee, as well as the eventual findings from the evaluation process are addressed. The quality assessment process will be carried out in accordance with the academic calendar for quality assurance.

In addition to the annual quality assessments, the programme coordinator in different time periods (after each exam term) analyses the students' passing through courses and programs and this is then discussed with the higher management of the Academy. Also, before the beginning of each semester, the program committee and the academic staff review the syllabuses and discuss the organization of practical work.

Part of the quality assessment instruments is also the evaluation of the subject by the professor.

The course evaluation process is done for each subject, by the teacher who has taught that subject. Through this assessment the academy will identify difficulties, challenges and recommendations for changes in relevant subjects. The process of evaluation of the subject by the respective teacher is done in each semester after the end of the lectures and before the beginning of the exam period.

Also, the teaching process is constantly monitored by the program coordinators and the same is reported to the senior management (director of the academy) of the Tempulli Academy.

Information from the academic staff evaluation process, including student evaluation, peer review and manager evaluation, will be used by the Academy to plan the development of the Academy's academic staff in general, as well as the individual form of each staff.

During the drafting phase of this self-assessment report, Tempulli Academy has drafted the academic staff development policies which regulate the process of identifying shortcomings in the teaching process and strategies for addressing them.

Tempulli Academy is currently using Google Form for data collection, while in the future it will use only a digital system of program and staff evaluation by students through SEMS where each student will participate in the evaluation process.

Tempulli Academy will realize a self-assessment report at least once every three years. The Academy practices so far have shown that the involvement of businesses in the revaluation process not only results in a program that suits their needs, but also makes the business partner and co-owner of the process.

Tempulli Academy has built the legislative basis for quality assurance, at the end of 2020 it has approved the regulation for quality assurance which regulates all quality assurance processes. The quality assurance regulation will be reviewed at least once every two years and amended as necessary (Appendix 2C Quality Assurance Regulation).

Quality Assurance Committee is elected by the Academic Council for a four-year term; with the right of re-election, in this composition: From a representative from each program, an administrative staff and a representative from the students as well as the Director of the Academy (ex-officio). The members of the quality assurance commission can nominate themselves, or are proposed by the members of the Academic Council, and have these responsibilities;

- Develops and approves quality assurance policies and procedures in accordance with the Academy's statute, international and national standards;
- Approves the quality assurance calendar;
- Approves evaluation instruments (questionnaires for alumni, businesses, program and evaluation of academic staff by students);

• Ensures effective and efficient implementation in academic and administrative structures.

Students should be a part of almost all activities and bodies (authorities) at the Tempulli Academy. When appointing commissions, a representative student is appointed by the Students Council who is part of that commission.

Based on the statute of the Academy and the regulations in force, students are represented in all activities and organizational structures of the Academy, such as:

- Steering Council;
- Academic Council;
- Program committee;
- Quality Commission;
- Ethics Committee;
- Disciplinary Commission;
- Complaints Commission;
- Working groups for drafting the strategy;
- Commission for Scientific Research, etc.

#### **SWOT** analysis for quality management:

#### A. Strengths

- Good relations with industry in the review of study programms;
- New institution with the possibility of starting to create new and modern ways of quality assurance;
- Existence of the Quality Assurance Office in the Tempulli Academy;
- Quality Improvement Policies on the basis of periodic self-assessments;
- Appropriate and adequate human and financial resources that will enable the Quality
  Assurance Office to successfully and effectively organise and implement their quality
  assurance procedures.

#### B. Weaknesses

• Implementation of some of the quality assurance standards in Kosovo will take time because they were recently approved by the KAA.

# C. Opportunities

- Use of information management system for student management in conducting student research and managing student performance;
- Use of the student management information system in collecting data with students and staff about the program and the institution.

# D. Challenges

Resistance of staff and students in supporting the digital way of collecting questionnaires; Lack of experience in collecting and processing data from assessments digitally.

# 2.3. Academic staff

The table of teachers in the study program

No	Name and last named	Full Time Part time	Academic title	Duration of the contract	Teaching Workload
1	Gëzim Hoxha	Full Time	Doctor of Science	30.09.2023	6
2	Muhamed Krasniqi	Full Time	Doctor of Science	30.09.2023	6
3	Ema Berisha Krasniqi	Full Time	Doctor of Science	30.09.2023	6
4	Mevlan Bixhaku	Full Time	Doctor of Science	30.09.2023	6
5	Eflorim Hajra	Full Time	Doctor of Science	30.09.2023	6

6	Fitim Shala	Full Time	Doctor of Science	30.09.2023	10
7	Gjelosh Vataj	Full Time	Doctor of Science	30.09.2023	10
8	Korab Krasniqi	Full Time	PhD. Candidate	30.09.2023	10
9	Hiflobina Obertinca	Full Time	PhD. Candidate	30.09.2023	10
10	Shpresa Ibrahimi	Full Time	PhD. Candidate	30.09.2023	10
11	Fatbardh Xhaferi	Full Time	Master of Science	30.09.2023	10
12	Selami Klaiqi	Full Time	Master of Science	30.09.2023	10
13	Arsim Azemi	Full Time	Master of Science	30.09.2023	10
14	Basri Lenjani Part time		Doctor of Science	30.09.2023	10
15	Liridon Hoti	Part time	PhD. Candidate	30.09.2023	10
16	Valerije Bojku Part time		PhD. Candidate	30.09.2023	10
17	Muhamed Luta Part time Master of Science			30.09.2023	10
18	Kastriot Gashi	Part time	Master of Science	30.09.2023	10

19	Emine Krasniqi Maloku	Part time	Master of Science	30.09.2023	10
20	Xhevat Ramosaj   Part time		Master of Science	30.09.2023	10
21	Kushtrim Kastrati Part time Science		30.09.2023	10	
22	Njazi Selmani Part time Master of Science		30.09.2023	10	
23	Arianit Islami	Part time	Master of Science	30.09.2023	10
24	Shukri Krasniqi Part time Master of Science		30.09.2023	10	
25	Adem Selmani	Part time	Master of Science	30.09.2023	10
26	Ilir Prapashtica	Part time	Master of Science	30.09.2023	10
27	Valdet Drenovci	Part time	Master of Science	30.09.2023	10

The Academy has now entered into contracts with a total of 27 academic staff of which 13 are full time with the Academy as well as 14 teachers with secondary employment (part time).

Program holders and all academic staff who are engaged in teaching in this program meet the requested criteria in accordance with the Administrative Instruction for Accreditation.

Based on the statements of the regular academic staff engaged in this program, none of them have teaching engagement in more than one regular job at the Tempulli Academy and if they have, they can have one in another teaching institution (on a part-time basis).

For the study program are engaged four teachers with regular employment status who are the holders of the program and have the title of Doctor of Science and are leads of the programme and others with master degree are engaged as teaching assistants.

Each member of the academic staff is expected to improve the learning environment through guidance, research cases, research activities and services that support the Academy's mission.

Each academic staff has its own space in office, which at the moment can be shared with another colleague in which they can work in preparation for teaching, study and accomplishment of other tasks set by the Academy within the obligations. contractual, as well as can use common spaces and resources (halls, cabinets, equipment, etc.) for the realization of student learning.

Tempulli Academy will carry out the evaluation of the academic staff and the teaching process in each semester, while the peer evaluation will be carried out once within the academic year. The results of these reports will be analyzed by the Programm Coordinators of and will be shared with the management of the academy. Furthermore, these reports are placed in the record folder (portfolio) of each teacher, in which will be found all the annual assessment reports.

At the end of the academic year, each academic staff will be subject to annual evaluation by the Program Coordinator (as manager). In this evaluation will be taken into account: student evaluation, peer evaluation, learning activity continuity, scientific engagement and community contribution, etc. In the manager's assessment, the academic staff will have the opportunity to reflect (make his / her self-assessment).

After the first evaluation and creation of the file (portfolio) of each staff, the Program Coordinator, as the first manager of the academic staff, drafts the improvement plan of each staff, and at least twice a year to meet with the staff in question. discuss the development and steps taken to improve teaching by academic staff.

In the Statute of the Tempulli Academy, for the promotion and re-election of the academic staff is required a good performance in teaching. The overview of staff performance comes from the results of evaluation reports.

Any staff who joins the Academy who has no teaching experience, within a short period will be trained to teach according to the expectations of the Academy. Whereas, periodically the Academy will provide trainings for the advancement of teaching with elements which also come from the evaluation reports of students, colleagues and managers.

Part of the contract between the Tempulli Academy and the staff are also his/her obligations towards the institution, students, etc. All academic staff are required to be at the Tempulli Academy for 40 hours

per week of which 6-10 (depending on the academic degree) hours are required for teaching. Each staff member has an office in which he prepares for teaching or even other additional jobs which are within the contract without interference from other colleagues in the office. Retirement of staff is done at the age of 65 years and is regulated by the Kosovo law.

At the moment of signing the contract between the two parties, the employee will also be provided with the job description in addition to other obligations which are written in the contract.

The practical part of the teaching will be realized in the Institute which is equipped with laboratories and adequate equipment for the realization of practical teaching/learning processes in the field of traffic and transport and other fields of applied sciences. The Academy has also concluded cooperation agreements with several enterprises/institutions in which in addition to other activities, it will be possible to realize practical training for students.

## SWOT analysis for academic staff:

#### A. Strengths

- The number of academic staff has increased;
- Larger and sufficient number of young staff.

#### A. Weaknesses

• Academic staff is not accustomed to self-assessment and self-criticism.

#### **B.** Opportunities

- Good opportunity to build good staff development practices from the beginning of academy development;
- Staff are encouraged to take advantage of the opportunity provided by the Academy laboratories and workshops to conduct scientific and applied research.

#### C. Challenges

- Staff resistance to changes in access;
- Difficulty adapting to digital learning tools from older staff members.

#### 2.4. Content of the educational process

The study program Transport Engineering and Infrastructure is designed based on the development of skills and abilities required by the labor market for graduates of this program, so that immediately after graduation they can easily respond to the demand of local and international businesses for qualified professionals in the field of traffic and transport engineering.

In response, the entire program development process was followed by close consultation with businesses in the respective sectors, to determine the competencies and skills of the graduates in meeting their requirements.

The program is designed in accordance with Level 6 of the National Qualifications Framework (NQF) as well as Level 2 of the European Higher Education Area Qualifications Framework (FQEHEA).

Studies in this program will last three years, and require 180 ECTS points. Upon successful completion of studies, the student earns the academic title of Bachelor of Science in "Transport Engineering and Infrastructure".

The program aims to provide students with basic and specialized knowledge of Traffic and Transport Engineering, Infrastructure Engineering and Urban Planning and Mobility assessment and the application of this knowledge in practice by establishing a strong link between theoretical knowledge and their qualification in practice.

Upon completion of this program, students will be provided with specific and general knowledge and general skills as well.

#### **General Learning Outcomes**

Upon completion of studies students should be able to:

- recognize various academic, professional and research ethical issues;
- work individually and in groups on theoretical and practical problems;
- develop analytical and practical skills in solving complex problems;
- recognize the importance of the link between transport economics and road infrastructure;
- communicate and present their work using academic language and terminology.

#### Specific Learning Outcomes Traffic and Transport Engineering

Upon completion of studies students should be able to:

- 1. Understand the importance of traffic safety and traffic rules;
- 2. Recognize forms of traffic control;
- 3. Calculate the capacity and level of road infrastructure service;
- 4. Recognize the basic principles of sustainable urban mobility;
- 5. Recognize the impact of motorization on environmental pollution.

## Specific Learning Outcomes (Infrastructure Engineering (road, railway and hydrology)

Upon completion of studies students should be able to:

- 1. Recognize the technical criteria for the design and placement of road signs;
- 2. Know the basic concepts of infrastructure engineering and spatial planning;
- 3. Design the technical elements of roads and railways networks;
- 4. Understand the organization of traffic and rail transport;
- **5.** Recognize the importance of hydrology and its impact on road infrastructure.

## **Specific Learning Outcomes (Urban Planning and Mobility)**

Upon completion of studies students should be able to:

- 1. Know the basic principles of sustainable urban mobility;
- 2. Calculate modal movement patterns;
- 3. Know the basic concepts of multimodal planning;
- 4. Recognize the concepts and benefits of non-motor movements;
- 5. Know the relationship between urban sustainability and environmental protection.

The ratio between theoretical and practical studies in the program in question is 60:40. The practical part is realized mainly in numerical exercises, visits and practice in different companies and industries of relevant sectors, practiced in certain subjects, and various projects in the Institute.

With the knowledge gained in this program, students will be able to work professionally in a wide range of industries, such as:

- Engineer in the technical control center;
- Accident assessment expert for insurance companies, court;
- Road and Railways construction company;
- Driving Schools,
- Transport Operators;
- Teacher of traffic subjects.

The program contains 31 courses distributed in 6 semesters plus Diploma. For each course are briefly described: Course objectives, teaching outcomes, course content, assessment methods, basic literature, and teaching methodology.

The program is offered only in Albanian language.

Tempulli Academy will build such practices that at the beginning of each semester, in the first class, the syllabus of the course is shared with students and all issues about the course are clarified until all students have understood it. Also, the syllabus of each course will be available to students through the SEMS platform.

Each subject has a teaching strategy and methodology, materials used in teaching as well as assessment forms. Teaching in the program will consist of lectures (theoretical and numerical) followed by their connection with the practical aspect, either through work in cabinets or at the Institute.

The evaluation of each course may vary depending on the teaching results of that course. Through assessment forms, it is assessed whether the teaching results of that subject have been achieved.

The program will use a variety of assessment methods, in full compliance with the assessment method set out in the Status of the Academy. The exam will be applied as a regular way, while other ways of assessment will be: Colloquium, Seminar Paper, Professional Practice, Practical Test during Exercises, Presentations, etc.

The forms of assessment are determined by the program while the content of the questions and obligations of the students are part which is developed by the teacher.

The Statute of the Tempulli Academy as well as the Regulation of studies regulates the procedures when it is suspected by the student that the assessment has not been done properly. In this case the academic staff provides the student with the exam materials and informs him/her about the result. If the student is not satisfied again, he/she is allowed to make a request to take the same exam again within that term. The exam is held by a commission which is appointed by Programme Coordinator. The procedures for the formation of the commission, the time and the way of preparation of the exam by the commission are regulated by special regulations.

If there's noticed violation from the side of the teacher, then the procedure to be undertaken is regulated in the regulation of ethics which defines all the steps that the Tempulli Academy must take in such cases against teachers.

In this study program, a special subject is provided internships for students (internship), which is organized in the sixth semester as independent work of students.

Regarding the practical subjects, the Tempulli Academy has approved the regulation of practical work and the manual which includes the duties and obligations of the students who follow the internship in certain enterprises. In this case, the course professor (internship) in collaboration with the supervisor who is appointed by the enterprise, they both make the assessment of the student. The Tempulli Academy has drafted a document which provides the description and evaluation by the supervisor in the enterprise.

The Tempulli Academy has signed several cooperation agreements with companies in various fields of industry, of which more than half of these agreements are companies dealing with Traffic and Transport Engineering, Infrastructure Engineering (road, railway and hydrology), Urban Planning and Mobility.

One of the objectives of the agreement is to create the opportunity for enterprises to provide access to students to carry out: internships, various researches, including diploma theses.

The curriculum is designed to build additional skills and competencies that fit the respective profile. Collaborating with industry and obtaining concrete information about qualifications and the need for additional qualifications make the program have an appropriate curriculum design. The program offers the opportunity to enrol all students who have successfully completed high school and successfully passed the Matura exam.

The Tempulli Academy has developed the electronic learning system (e-learning) as part of the Academy Students Management System. All staff is trained, new staff will be trained in the use of this system and will be a mandatory part of their work. As for the use of modern teaching tools, the Academy has installed in almost all classrooms video projectors and in some places are installed even smart projectors.

Furthermore, as a result of the COVID-19 pandemics, the Academy has adopted the Google Drive and other Google tools, and ZOOM, for online learning and communication with students.

The Tempulli Academy has developed a policy of academic staff development, part of which is the continuous monitoring of the performance of academic staff and their advancements in new teaching methodologies and evaluations of teaching methodology.

In this context, the Academy will conduct training on the use of case studies for all staff. Teachers were obliged to make a case study during the training and use it for teaching purposes.

The table with information about the study program under evaluation should be completed as follows:

 ${\bf STUDY\ PROGRAM:\ Transport\ Engineering\ and\ Road\ Infrastructure-BSc}$ 

			Traffic and Transport Engineering	Infrastructure Engineering	Urban Planning and Mobility			
First	First Year							
		Hours						
		per	First Semester					
O/Z	ECTS	Week						
О	6	4	Information Technology	Information Technology	Information Technology			
О	6	4	The right in Traffic	The right in Traffic	The right in Traffic			
О	6	4	Academic communication	Academic communication	Academic communication			
О	6	4	English Language I	English Language I	English Language I			
			Introduction of traffic and transport	Basics of traffic and transport	Basics of traffic and			
О	6	4	indoduction of duffic and duffsport	Busies of truffic and trunsport	transport			
O/Z	ECTS			Second Semester				
О	6	4	Road transport	Road transport	Road transport			
О	6	4	Engineering Graphics	Engineering Graphics	Engineering Graphics			
					Traffic rules with			
О	6	4	Traffic rules with methodology	Traffic rules with methodology	methodology			
О	6	4	Applied Mathematics	Applied Mathematics	Applied Mathematics			
О	6	4	English Language II	English Language II	English Language II			
Seco	nd Yea	r						
O/Z	ECTS			Third Semester				
О	6	4	Transport technology	Transport technology	Transport technology			
			Computer Graphic Engineering (Auto	Computer Graphic Engineering	Computer Graphic			
О	6	4	Cad)	(Auto Cad)	Engineering (Auto Cad)			
О	6	4	Mechanics	Mechanics	Mechanics			
О	6	4	Statistics and probability	Statistics and probability	Statistics and probability			
Z	6	4	English Language III	English Language III	English Language III			
Z	6	4	Application Software's	Application Software	Application Software			
O/Z	ECTS		Fourth Semester					

О	5	4	Urban planning	Urban planning	Urban planning	
О	5	4	Road Traffic safety	Road Traffic safety	Road Traffic safety	
О	5	4	Road infrastructure	Environmental Engineering	Traffic Flow Theory	
0	5	4	Motor vehicles	Road infrastructure	Non-motorized Transportations	
0	5	4	Techniques of urban traffic	Traffic Flow Theory	Project management	
			•	<u> </u>		
Z	5	4	German Language I	German Language I	German Language I	
Z	5	4	Medicine in Traffic	Drainage systems	Road infrastructure	
Thir	d Year					
O/Z	<b>ECTS</b>			Fifth Semester		
				Design and construction of		
				hydraulic infrastructure	Adjustment of circulation in	
О	5	4	Loading and unloading mechanisms	facilities	traffic	
О	5	4	Transport Economics	Organization of railway traffic	Transport and Logistics	
О	5	4	Transport and Logistics	Transport Economics	Financing of multimodal transport system	
0	5	4	Adjustment of circulation in traffic	Adjustment of circulation in traffic	Governance and involvement in transport	
О	5	4	Research methods in transportation	Railway infrastructure maintenance	Transportation, land use and destination	
				Research methods of road		
Z	5	4	Psychology of Traffic	traffic	Parking management	
Z	5	4	German Language II	Transport and Logistics	Transport Economics	
			Transportation, land use and			
z	5	4	destination	German Language II	German Language II	
O/Z	ECTS		Sixth Semester			
				Independent Project- Diploma	Independent Project-	
О	30		Independent Project- Diploma thesis	thesis	Diploma thesis	

#### **SWOT** analysis for the contents of the educational process:

#### A. Strengths

- A unique programme in Kosovo and in the Region;
- High demand for the programme;
- Program designed based on labour market requirements;
- Collaboration with partner institutions enables students to conduct periodic internships during their studies and professional practical work during the last semester of their studies.

#### **B.** Weaknesses

- Limited opportunities for practical work on the Academy Campus;
- Lack of modern and relevant literature in the Albanian language.

# C. Opportunities

- Opportunity for students to engage more with internships in their seminar papers;
- The possibility of employment of students in the industry, after completing the internship in the partner companies of the Academy.
- Possibility of engaging external teachers (based on invitation) to conduct some of the teaching.

#### D. Challenges

- Migration of students to the outside world during the study cycle or immediately after graduation;
- Pandemic situation.

#### 2.5. Students

The BSc. Transport Engineering and Infrastructure program will be offered for the first time in this academic year so the Academy actually has no students enrolled so far.

Student admission will be done in accordance with the call for enrolment which will be announced online on Social Media and website and in online news portals in Kosovo. The student selection and admission criteria are dictated by the Tempulli Academy Statutes and are published along with the call for enrolment and also regulated by Kosovo Law. All applicants must fill in the online application form and submit hard copies of the necessary documents to the Tempulli Academy. The Tempulli Academy administration is responsible for the verification of information submitted to the system by students.

Through the SEMS system, the Academy keeps the registration data, respectively the completion of all levels of courses and study program.

Students Education Management System SEMS is a system which establishes all communication between the Tempulli Academy and the students. Through SEMS, exams are presented, elective courses are selected and semesters are registered, student academic records are managed and online learning is managed through the e-learning module.

The learning process is organized in several ways. For theoretical subjects lectures are held in groups of up to 50 students, practical subjects up to 10 students (subjects such as those held in IT classrooms), whereas for lectures of professional subjects the groups are no larger than 30 students (subjects such as those held in Tempulli Academy workshops).

Exam results are announced on SEMS and students are notified automatically. Students who are not content with the results can refuse the grade on SEMS within 48 hours after its publication. Students who are not content with the assessment are allowed to require a committee assessment, as defined by the Regulations for Studies in the Academy.

As regulated by the legislation currently in force, the graduated student will be provided with the adequate certificates (grade certificate, a diploma and a diploma supplement).

In accordance with the Tempulli Academy Statute and Study Regulations, there is some form of flexibility in the scheduling of exams if the student is part of an international exchange program or if they participate in work or experiential learning abroad (the Tempulli Academy can reschedule exams if companies which it has collaboration agreements with require students to do their experiential learning during the time exams are scheduled to take place. In other cases, exams can be held outside scheduled time for students who participate in various scientific or sport competitions, for which they should provide adequate verification).

The Tempulli Academy stores all data related to registration and completion of all levels of subjects and study programs in SEMS.

Tempulli Academy Statute as well as its regulations are all published on the official Academy website, the Academy has developed a manual which is given to students at the start of their first academic year, and which informs them of all their duties and responsibilities and where they can get more information about.

Student transfer between academic institutions as well as the changing of study programs is regulated by the Statue of the Tempulli Academy and regulation for transfer.

Academic staff is required to be available to students at least twice a week on a scheduled basis for both academic and advisory type counselling.

In its strategic plan, the Academy will also start applying the personal supervisor system, where each student will have a teacher appointed as a personal tutor who must meet with the student at least once a year and follow the development. of the student during the whole time of studies.

The Academy does not have an automated way of monitoring student work in a specific subject in the study program. The Programme Coordinator of the respective faculty/programme monitors the passing statistics in each subject and takes the necessary measures to address student difficulties in passing certain subjects.

For the evaluation and monitoring of the achievement of teaching results, the Academy uses the evaluation mechanisms of the evaluation of the academic staff, such as: the evaluation of the students for the professor, the peer evaluation, the evaluation by the manager and the self-evaluation. These activities are performed on an annual basis and in most cases are semester (semester). The academy plans to conduct various trainings in the academic staff development plan, including those on assessment methods.

Given that the Academy is a new institution and still has no enrolled students, it has not implemented any organized form of student support for non-academic issues. However, the Academy will continue the tradition built by Tempulli College in supporting students in their non-academic activities.

The Tempulli Academy has its library where students can find enough material to fulfil their most basic requirements during their studies. The Tempulli Academy also offers its students access to various online resources.

Furthermore, if for a specific subject there is not enough basic literature in the Albanian language, the teacher is responsible for providing an adequate basic material and will instruct students on other materials used in the subject in question.

The Academy also has its Partner Council that cooperates and identifies development possibilities for new subjects which equip students with additional skills identified by the industry.

# **SWOT** analysis for students:

#### A. Strengths

- Increasing the number and quality of students who have the Tempulli Academy as their first choice;
- Adequate resources provided by the Academy for student internships.

### **B.** Weaknesses

• Limited number of titles in the Academy library.

### C. Opportunities

• Apply for more international student mobility projects.

# D. Challenges

• Students lose interest in completing their studies due to the low level of employment in Kosovo.

### 2.6. Research

The Academy recognizes the importance of research in its development and as such it has included it as one of its strategic objectives of the strategic plan 2021-2025, which includes the spectrum and quality of research also, laboratory work at the Institute for Road Safety and Transport Research involving both staff and students of the Academy.

The part of the institute includes the laboratory for expertise in the field of transport, traffic and road safety.

The Academy has drafted the Regulation for Scientific Research (Appendix 2D. Regulation for Scientific Research), and a Research Strategy (Appendix 2E. Research Strategy). This regulation defines the rules, procedures and other accompanying documents for the organization of scientific research activity of academic staff, researchers and students. Tempulli Academy has put research as an important priority also in its "Development Plan". Thus, among others, these objectives foresee that "Tempulli Academy supports the development and research projects of staff and students in order to enhance the relevance of studies". The same priorities are reflected in all the documents related to research.

These strategic objectives which aims at accomplishing the Tempulli Academy mission and vision, foresees the following measures:

- Fundraising for research projects of Tempulli Academy staff;
- Establish a research fund for Tempulli Academy students;
- Undertake measures for the systematic integration of research into study programs;

- Increase the fund for participation in conferences and publication of articles at home and abroad;
- Build capacity for application to local and international calls for research projects;
- Strengthen and support the journal thesis;
- Raise funds for the organization of International Scientific Conferences;
- Support publishing activities of staff, researchers and creators in Kosovo;
- Strengthen the practical work component.

For each of the above measures there are targets and performance indicators that assist the Academy in tracking the achievement of the strategic objectives. Moreover, as for any other strategic objective, for the objective of scientific research work as well, Tempulli Academy has defined a budget that includes a five-year period (see the annex on Research Strategy). Despite the budget being modest for the initial years, it will continuously increase through the years.

Based on the Regulation for Research Development, the Academy has created policies to support academic staff in scientific research. As for the budget of the academy which is part of the Strategic Plan 2021-2025, the Academy has foreseen the support of the academic staff in scientific publications up to 1000 euros for each academic year for staff. This support will be foreseen for participation in international conferences, payment for publications of papers in journals and other scientific activities provided by the Regulation for Scientific Research.

In order to manage and support research activities, the Academy has established the Scientific Commission which consists of:

- Three members of the academic staff with PhD, with proven experience in the field of scientific research;
- A student representative delegated by the Student Parliament of the Academy;
- A representative of the administration responsible for supporting research.

Scientific Commission, among others, has these responsibilities:

- Propose to the Academic Council individual journals and platforms (databases) of scientific journals for publications of academic staff;
- Approve or reject requests for support scientific and research activities of academic staff, covering the costs of publishing of scientific papers in international scientific journals and

requests of academic staff to cover participation in international conferences, symposia, workshops or international scientific forums, etc.;

• Organizing conferences, symposia, workshops, or scientific forums at the Academy.

So the commission for scientific research, continuously evaluates the platforms and journals where the academic staff can publish and proposes to the Academic Council for their approval.

For the advancement of the academic staff, with the statute of the Academy and with the Regulation for the Selection of the Academic Staff, a considerable number of academic and research activities are foreseen. The Academy applies these rules accurately.

With the new administrative instruction no. 01/2018, "Administrative Instruction (MEST), No. 01/2018 Principles of Recognition of International Platforms and Journals with Review", for the selection of academic staff are clearly defined in which databases and houses published or journal papers will be recognized by the Academy for Academic Advancement.

The Academy concludes its research activities by publishing a scientific paper in a journal or participating in scientific conferences.

In addition to the obligations related to the appointment and promotion process, the staff of the Academy will be continuously encouraged to publish and participate in national and international conferences, symposia or congresses with their work as this will be considered during their annual staff evaluation as well as promotion process.

Based on the KAA QA standards as well as on the Regulation for scientific research, each academic staff of the Academy is obliged to publish an average of one paper per year.

2018	2019	2020
11	24	16

Tab. Number of publication in the last three years

The Academy has total 27 academic staff employed in all programmes most of whom are with the title Dr.Sc. In the last three years, the number of publications of the academic staff within the Academy is 51 which represents less than one publication per academic staff. Considering that this number of staff is employed in 2020, their scientific contribution should really be taken into account only in 2020 and

not in 2018, 2019. However, the Academy has taken into account the contribution of academic staff for 2018 and 2019 knowing that this can affect the reduction of the average work per worker, per year. More details about staff publications are provided in (Appendix 2F list of staff publications).

Based on the Statute of the Academy and the Regulation on recruitment and promotion of academic staff, a considerable number of academic and research activities are foreseen and clearly defined in which databases and publishing houses or journals the published works will be recognized by Academy for Academic Advancement these have been made public on our Academy's website.

All full time staff on the Academy are obliged to publish their scientific works on behalf of the Academy. This process is regulated by Regulations for Scientific Research and by employment contract engagement of staff in research work is used to evaluate their performance, and as well as for the purposes of academic and professional development.

The use of research by academic staff in the teaching process is very important, especially in the contextualization of problems in the context of Kosovo and the region. Relying on the importance of research and its use in the teaching process, the Academy has created a suitable infrastructure for conducting research within the institute and is committed to support it. This, not only enables the use of staff to use research in the teaching process but also enables the involvement of students in the research process.

The Academy as a new institution is in the consolidation phase, within this phase it also includes the creation of intellectual property policies.

Given that the Academy is in the new institution there are no students involved in research work, but if we refer to the retrospective as the College the Academy has a good experience of involving students in research work. The involvement of students in research work is mainly done in the work of diplomas both bachelor and master level.

All staff are encouraged and enjoy institutional support to engage in research and publication.

The Code of Ethics obliges that the research of each member of the Academy be in accordance with the principles of Ethics Code. The regulation on disciplinary measures also clearly describes punitive policies related to processes that do not conform to the principles of ethics.

The Academy has inherited the cooperation from Tempulli College with businesses, organizations and other institutions. The College has been part of several joint projects with the Municipality of Prishtina, Kosovo Association of Municipalities, in the installation of traffic signs and projects and consulting in the field of mobility and road safety.

# **SWOT** analysis for research:

# A. Strengths

- Financial support of staff for research and scientific publications;
- Conducting scientific research within the Institute;
- Research being a strategic objective of Tempulli Academy.

# **B.** Weaknesses

• Limited number of publications in international journals by the Academic staff.

# C. Opportunities

- Involvement of students on research projects;
- Application on international projects;

#### D. Threats

• Building trust from businesses to cooperate with the Academy in commercial activities.

#### 2.7. Infrastructure and resources

The Academy has a diversity of funding sources, a factor that ensures financial sustainability. The main sources of funding will be:

- Student fees:
- Payments for professional trainings and instructor trainees;
- Expertise;
- Various local and international projects.

The Academy is located in a relatively new building, which has a very convenient, clean and attractive environment for students and staff, both in terms of learning conditions and social spaces. The Academy is located a few meters from the centre, where it provides very easy access for students and staff of the Academy. The building has over 1260 m<sup>2</sup> including the spaces for Institute the Driving School. The laboratories of the Institute can be used for student's practical work and for commercial activities of the Academy.

The building was purchased by the shareholders of the Academy and enjoys the freedom to invest all the revenue into:

- 1. Equipment and tools;
- 2. Expanding of the building;
- 3. Enriching the library;
- 4. Building of laboratories etc.

The academy has enough space for the realization of the teaching process and practical teaching. The academy has 5 classes in which theoretical teaching takes place while the practical part is realized in laboratory spaces which includes 114m2.

The library is an important unit that supports the academic and teaching process, therefore special attention has been paid to this sector for many years. The mission of the Library is to provide services and materials in order to meet the needs of students, professors and other staff. The library as a unit of this institution is at the service of all users of the Academy and for all other affiliated users. Users have several ways of accessing different literature in the Library:

- a) Physical Library;
- b) Electronic library (electronic catalogue) and online academic and scientific journals.

Through the National University Library, the Academy will have access to more than 700.000 numerous electronic databases as well as access to other open access journals. In relation to the number of students the library area has doubled with physical space and now meets the needs and requirements of the students.

Tempulli Academy students have access also to the electronic library that is available for students and academic staff: <a href="https://www.ciltuk.org.uk/Knowledge.aspx">https://www.ciltuk.org.uk/Knowledge.aspx</a>).

Although our Academy offers programmes from specific fields, the Academy has managed to ensure plenty of literature in Albanian language, which was published by local authors, but also translated books, mainly from English language. Furthermore, the Academy has worked hard in order to translate specific literature and materials from different languages, and delivering it to the students, thus ensuring that the students are equipped with the adequate literature, and the learning outcomes are met. The Academy is equipped with 1862 physical books, and several electronic books. Our Academy enjoys many advantages since we are full members of International Road Union – IRU Academy, The Chartered Institute of Logistics and Transport (CILT), which grants our students the possibility to use, for free, all the publications and journals that are related to Traffic and Transport. The Academy (via the institute) is already subscribed to several journals such as: The Knowledge Centre, the students will have constant access.

The Academy has two reading spaces with about 50 seats for students. The Academy has also allocated separate reading rooms where students can read as well as work in groups or individually. All materials in the library are accessible to all staff and students of the Academy. In addition to the library and reading room, within the premises of the Academy there are separate areas in which students can discuss and work in groups.

The Academy has also created the means for students and staff to use the electronic learning platform (e-Learning). This platform will be populated with programs and modules once they are accredited.

The Academy has computer rooms with a total number of 80 computers which are accessible to all students, while the Institute has equipped laboratories with modern equipment in which in addition to the execution of expertise in the field of traffic and transport, student practical work as well as scientific research can be realized.

The library is open and accessible from 07:00-19:00, every day of the week, thus ensuring easy access for students who want to use either the physical books, or the computers which grant them access to the electronic library. Furthermore, via their user account which is created using the domain of the Academy, students can access different electronic libraries and journals, as made possible by the agreements of the Academy with these libraries/journals.

As part of the annual evaluation by staff and students, one of the areas that will be evaluated is infrastructure. The evaluation of student satisfaction regarding the use of infrastructure and other support resources will be done once a year. The Secretary General and Director of the Academy, will analyze the results from the evaluation of students and staff for aspects of infrastructure, and based on the findings, an action plan will be drafted to address issues (findings) for the infrastructure.

Given that the Academy is located in the urbanized part of the city, students' access to food services outside the facility is very easy. However, the Academy within its premises has allocated a canteen where students and staff can enjoy lunch and have drinks.

The Academy will pay special attention to the promotion of its students through extracurricular activities. The spirit of supporting these activities is also included in the budget planning which is part of the Strategic Plan 2021-2025.

Continuously improving the quality of infrastructure will be one of the priorities of the Academy, also it is worth mentioning that we are in the process of building a new campus.

The location for building the Campus is in the new part of the city, which has access into wider roads of the new part of Pristina, street B and C, (Appendix 2G Pictures of the New Campus). The new campus

offers better physical conditions for work (building new objects, plan, construction, equipment, laboratories, inventory), etc.

Within its evaluation mechanisms, the Academy will also research student satisfaction related to infrastructure, research findings will be addressed by its competent persons.

All the full-time staff of the Academy own their offices together with the support equipment to carry out research work.

The Academy employs an IT office which is available to students and academic staff. The IT Officer together with the other staff of the Academy will train the new staff and students regarding the use of the SEMS system.

# SWOT analysis for learning resources and facilities:

# A. Strengths

- Suitable space for the implementation of the theoretical and practical part of the courses;
- Suitable space for reading.

#### B. Weaknesses

- Lack of sports and recreative spaces for students;
- Limited number of titles in Albanian language in the library.

# C. Opportunities

- Utilization of the city central location of the Academy;
- Signing of new agreements with renowned European libraries to grant access to our students and academic staff to further literature.

#### D. Threats

• Students preferring to go to the city centre instead of using the physical or electronic library for reading.

# 2.8 Appendix

Appendix 2A. List of Participants from the Meeting of the Program Committee

Appendix 2B. Meeting Agenda, List of Participants and Meeting Extract

Appendix 2C Quality Assurance Regulation

Appendix 2D Regulation for Scientific Research

Appendix 2E Research Strategy

Appendix 2F List of Staff Publications

Appendix 2G Pictures of the New Campus

Appendix 3 Syllabuses

# 2.9 Course descriptions

General subjects for three specializations: Traffic and Transport Engineering, Infrastructure Engineering, Urban Planning and Mobility

#### FIRST YEAR

First semester

**Course Title: Information Technology** 

### **Course description:**

Introduction to Computer Science. Study of algorithms. Mrs. Word. Excel. Calculations in Excel. Graphs. PowerPoint. Mathcad software. Mathematical operations with Mathcad. Operations-Activities of the Unit. Graphical representation of functions using Mathcad.

# Goals and expected results:

The main objective of this course is for the student to achieve study topics in computer science by examining the connection with other disciplinary sciences where information technology is used. Upon completion of the course the student will be able to: 1) know and analyse the components of hardware and software, 2) implement the Microsoft package, 3) use some communication software. 4) solve mathematical problems and problems of technical sciences in general; 5) know the basic principles of computer science; 6) understand the notion of programming.

### **Teaching methodology:**

The teaching method is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is provided for the transfer of knowledge, improvement of skills and abilities of students. The learning method focuses on competencies and learning outcomes. These activities are related to the relevant content of the course, based on the competencies that will be acquired. In order to carry out the learning methods and achieve the objectives, a greater involvement of practical training through projects and professional practice, promotion of research and a better connection between theory and practical part is allowed.

### Literature:

- 1. Ahmet Shala, Informatics and Programming;
- 2. Mathcad Help Guide & Electronic Boxing & Documentation;
- 3. Ahmet Shala, Application Software, Prishtina 20014-2015;
- 4. Ahmet Shala, Basics of working with computers, Prishtina 2019.

# **Course title: The Right in Traffic**

# **Course description:**

Constitution - Laws. Act. Important legal acts. Trials - Judgment of the constitution of Kosovo. Judicial power. Alignment and judicial powers. Municipal courts. Economic courts. Supreme Court. Court for violation. Military court. Traffic law - The concept of traffic and the right to traffic. The importance of communication. Resources in traffic law. Road warning. Traffic signaling. Actions in case of road accident. Actions of the Ministry of Interior and other persons authorized for traffic safety. International road traffic organizations. Customs conventions for road traffic.

### Goals and expected results:

The student will be familiar with national and international legal regulations and transportation traffic policies in general. Upon completion of the course the student will be able to: 1) identify legal issues in transportation. 2) establish certain legal aspects and regulations related to traffic safety, 3) compare legal issues in international and national transport and develop an adequate administrative manual 4) analyze and implement international agreements and conventions WTO, GATT, Areas of Free Trade, 5) Understand what are the local and international legal sources, 6) Understand the branches of government in our country, 7) the functioning of the EU, 8) know about the Constitution of Kosovo, national laws and regulations.

# **Teaching methodology:**

The teaching method is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is provided for the transfer of knowledge, improvement of skills and abilities of students. The learning method focuses on competencies and learning outcomes. These activities are related to the relevant content of the course, based on the competencies that will be acquired. In order to carry out the learning methods and achieve the objectives, a greater involvement of practical training through projects and professional practice, promotion of research and a better connection between theory and practical part is allowed.

### Literature:

- 1. H. Zhitija: "Right to traffic", Prishtina, 2013
- 2. Arif Krasniqi: Right to traffic, Prishtina 2009
  - H. Wells, The Fast and The Furious: Drivers, Speed Cameras, and Risk Society Control, Gower Publishing Limited, 2013

### **Course title: Academic Communication**

### **Course description:**

Introduction, Words that produce knowledge, conflicts, understanding, actions, art. Words in texts, tables, programs, books, etc. Speech dexterity. Among the words you have to choose between the most important and the least important. Plagiarism. Its various forms such as a complete copy of books and other sources, the appropriation of another's work or the use of phrases, paragraphs without reference. Writing as the greatest intellectual ability in the academic world. Expression through written words. Combinations between the letters in question continue. The production of academic writing, which is the intellectual property of every individual involved in the world of knowledge. Developing academic writing through explanation. Reading for academic purposes is different from reading in pre-university education. Academic reading characterized by: large number of pages; requirements to keep records; collecting material ideas, maintaining a critical attitude, etc. The structure of academic writing, the ethics of academic writing, the principles and bases of an appropriate writing, reflective writing, etc.

### Goals and expected results:

The Academic Writing course aims to give students a basic knowledge of the methods of writing academic papers. After attending this course, students will be able to: 1) successfully complete all academic requirements, 2) learn to express themselves clearly and understandably, 3) properly organize their thoughts and encourage them for critical thinking and scientific judgment; 4) to know

the types of sources used in research and the ways they follow to gather all the necessary material that serves for the writing of historical academic works, 5) to learn the inclusion of methods of analysis and reading of primary and secondary sources in order to make better use of them during and after bachelor studies.

# **Teaching methodology:**

The teaching method is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is provided for the transfer of knowledge, improvement of skills and abilities of students. The learning method focuses on competencies and learning outcomes. These activities are related to the relevant content of the course, based on the competencies that will be acquired. In order to carry out the learning methods and achieve the objectives, a greater involvement of practical training through projects and professional practice, promotion of research and a better connection between theory and practical part is allowed.

### Literature:

- 1. Hoxha, Artan R. Academic writing for students of historical subjects, 2018.
- 2. Eco, Umberto. How to write a dissertation. (Tirana: Dituria, 2015).
- 3. Zeneli, Bernard. Academic writing. (Tirana, 2016).
- 4. .Musai, Bardhyl. Write essays. (Tirana, 2014).

# Course title: English Language I

#### **Course description:**

Possessive adjectives - Vocabulary - Everyday items - Numbers - Paragraph writing - Social English — Appearances - Greetings and goodbyes Conversation about people - Being - Questions and negatives - Possessor - Family - Reviewing numbers - Opposite adjectives - Listening and reading - Social English - In a café Simple present - Questions and negatives Reading and listening - Vocabulary and pronunciation - Daily English - Telling time. Simple present 2 - Daily routine - Reading comprehension - Vocabulary - Leisure activities - Social expressions.

### Goals and expected results:

The aim of this course is for students to have knowledge of English literature and grammar. Upon completion of the course, the student will be able to: 1) have a strong knowledge of English, 2) write and read in English, 3) communicate with a certain degree, 4) accept the basic elements of

communication, 5) knows certain terms of traffic, 6) write some accurate notions about traffic, 7) understands in English the types of transport.

# **Teaching methodology:**

Engaging in lessons, homework, regular attendance, Three tests, Final Exam;

#### Literature:

- 1. Literature: Headway I, Headway 2 Supplementary reading tests. Technical dictionaries;
- 2. Ljerka Bartolic: "Mechanical Engineering and its Terminology"; Rudolf Filipovic: "In the Sketch of English Grammar".

### Course title: Basic of traffic and transport

# **Course description:**

Admission to places of traffic and transport. Importance of communication activity. Development of communication tools. Principles of communication and transport organization. Traffic service organization. The classic notion of communication and transportation process. The notion of domestic transport. The importance of organizing road traffic and transport.

# Goals and expected results:

The main objective of this course is for the student to be able to plan and develop the road transport system

Upon completion of the course, the student will be able to: 1) know and develop the basic characteristics of traffic and transport, 2) study and know the role and importance of communication 3) create employment strategies for transport organizations 4) manage and analyze transport development. 5) Understand the principles of traffic, 6) Understand the organization of inland transport, 7) Identify the advantages and disadvantages of modes of transport

### **Teaching methodology:**

The teaching method is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is provided for the transfer of knowledge, improvement of skills and abilities of students. The learning method focuses on competencies and learning outcomes. These activities are related to the relevant content of the course, based on the competencies that will be acquired. In order to carry out the learning methods and achieve the objectives, a greater inclusion of practical training through projects and professional practice, promotion of research and a better connection between theory and practical part is allowed.

# Literature:

- 1. Unë Doci: "Transporti rrugor", Prishtinë, 20013
- 2. A. Pearman (et al), Projektet e Transportit, Programet dhe Politikat, Gower Publishing Limited, 2019
- 3. S. Shaw, Strategjia dhe Politika e Transportit, CILT (MB), Edicioni i 7-të, 2011
- **4.** J. Madre, Metodat e Sondazhit të Transportit-Ndjekja me një Botë në Ndryshim, Emerald Group Publishing Ltd., 2019.

#### **Second semester**

**Course title: Road Transport** 

# **Course description:**

Road transport. Organization of road and rail traffic. Autoparku. Travel. Depreciation. Profitability. Economy. Transport operating costs. Revenue structure. Organizing the transport of goods and passengers. Types of expenses. Minimum cost method. Application of HR methods in finding optimal solutions. Labor costs of transport vehicles. Security of traffic systems.

# Goals and expected results:

Upon completion of the course the student will be able to: 1) know the economics of organizational systems, 2) organize and manage transport costs, 3) determine the cost and form of transport exploitation, 4) know and solve problems through numerical methods from traffic economics, 5) to know the geographical conditions for the development of land traffic, 6) basic factors and traffic processes in the economic functioning of the system, 7) traffic systems and traffic policies, 8) principles of road transport economics.

### **Teaching methodology:**

The form of teaching is planned and synchronized between the teacher and the assistant. These forms of teaching, both in lectures and exercises, in terms of methodology and content are in accordance with the syllabus and on the basis of fulfilling the necessary knowledge. In order to achieve forms and objectives in learning enables greater inclusion of practical training through projects and professional practice, promoting research and better linking between theory and practice.

#### Literature:

1. R.Likaj, Traffic Economics, Prishtina 2015.

- 2. Q. Buqinca, "Organization and traffic economic", Prishtina 2014.
- 3. K. Button, Transport Economics, 3rd Edition, Gloucestershire 2014.

# **Course title: Engineering Graphics**

# **Course description:**

The basics of applying CAD program (formats, standards), knowledge of CAD working tool, application, performance facilities space, orthogonal format, building knowledge in CAD applications (text entry, quantizing, progress means etc.) drawing on non-flat surface and in 3D modelling, etc.

# Goals and expected results:

Students will be familiar with the technique of engineering designing with help of the computer through one of CAD software. After completion of the course the student will be able to: 1) recognize and use the applications of designing, 2) design facilities through engineering designing, 3) design objects in 3D format, 4) draws and frames on the different surface, 5) Demonstrate entering of text, quotation, advanced tools in the CAD application, 6) Understand the general concept of graphical engineering through the use of computers, 7) Explain the advantages of AUTO CAD software in designing.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

# Literature:

- 1. G. Omura, Auto CAD 2015, Computer, library.
- 2. K. Trimcev, Faculty of Mechanical Engineering, technical drawing.
- 3. Freight Transport Association, Designing for Deliveries CD-CAD Templates, Freight Transport Association, 2010.

Course title: Traffic rules with methodology

**Course description:** 

Road traffic rules: concepts, vehicles by category, conditions for driving vehicles, gaining the right to drive the vehicle, duties and responsibilities of traffic participants. Driving, culture and traffic, traffic

attention.

Goals and expected results:

After completion of the course the student will be able to: 1) know the rules and methodology of traffic, 2) to apply traffic rules according to applicable law, 3) determine the level of knowledge in recognizing and enforcing the rules, 4) know the methodology of working in traffic, 5) know the

duties and responsibilities of traffic participants.

**Teaching methodology:** 

The form of teaching is planned and synchronized between the teacher and the assistant. These forms of teaching both in lectures and exercises, in the methodological and content plan are in accordance with the syllabus and on the basis of fulfilling the necessary knowledge. On this basis, the opportunity is created to transfer knowledge, increase the skills and abilities of students. The form of learning focuses on competencies and learning outcomes. These activities are related to the content of the relevant subject based on the competencies to be acquired. In order to achieve forms and objectives in learning enables greater inclusion of practical training through projects and professional practice,

promoting research and better linking between theory and practice.

Literature:

1. M. Krasniqi: "Rregullat e trafikut dhe metodika", Prishtinë 2016

2. M. Infrastrukturës: "Ligji për rregullat e trafikut rrugor", Prishtinë 2016

3. R.Jonhson: "What every driver must know", Michigan 2016.

**Course title: Applied Mathematics** 

Course description: Study and training of students in the field of Mathematics for the purpose of application in technical sciences. Application of statistical methods. Probability.

Goals and expected results:

Training of students in the field of advanced applied mathematics. Upon completion of this course the student will be able to: 1) Know the various theoretical and practical approaches to technical knowledge and mathematical calculations needed for them,. 2) To evaluate the phenomena of

54

technical phenomena, 3) To develop independent and critical studies in the field of technology, 4) To use statistical methods for scientific research purposes.

**Teaching methodology:** The form of teaching is planned and synchronized between the teacher and the assistant. These forms of teaching, both in lectures and exercises, in terms of methodology and content are in accordance with the syllabus and on the basis of fulfilling the necessary knowledge. The form of learning focuses on competencies and learning outcomes. These activities are related to the content of the respective subject based on the competencies to be acquired. In order to achieve forms and objectives in learning enables greater inclusion of practical training through projects and professional practice, promoting research and better linking between theory and practice.

#### Literature:

- 1. Michael Berthold, David J. Hand, Intelligent Data analysis, Springer, 2007.
- 2. Prof. Dr. Sadri Shkodra, Mathematics III authorized lectures for master studies, year I.v

Course title: English Language II

# **Course description:**

Possessive adjectives - Vocabulary - Everyday items - Numbers - Paragraph writing - Social English - Appearances - Greetings and goodbyes Conversation about people - Being - Questions and negatives - Possessor - Family - Reviewing numbers - Opposite adjectives - Listening and reading - Social English - In a café Simple present - Questions and negatives Reading and listening - Vocabulary and pronunciation - Daily English - Telling time. Simple present 2 - Daily routine - Reading comprehension - Vocabulary - Leisure activities - Social expressions.

#### Goals and expected results:

The aim of this course is for students to have knowledge of English literature and grammar. Upon completion of the course, the student will be able to: 1) have a strong knowledge of English, 2) write and read in English, 3) communicate with a certain degree, 4) accept the basic elements of communication, 5) knows certain terms of traffic, 6) write some accurate notions about traffic, 7) understands in English the types of transport.

# **Teaching methodology:**

Engaging in lessons, homework, regular attendance, Three tests with, Final Exam.

#### Literature:

1. Headway I, Headway 2 Supplementary reading tests. Technical dictionaries,

- 2. Ljerka Bartolic: "Mechanical Engineering and its Terminology"
- 3. Rudolf Filipovic: "In the Sketch of English Grammar"

#### SECOND YEAR

#### **Third Semester**

**Course title: Transport Technology** 

### **Course description:**

Transport technology. Defining technology of transport as a system. Substrate of transport as subsystem of the transport technology. Transportation needs. The structure of the substrate by commodity group. The structure of the substrate by transport technology. The orientation of the substrate in different branches of traffic. The model of separation of goods by transport providers. Definition of mathematical model based on key criteria. Function of the criteria. Transportation equipment. Element package of transport technology. Palette, development, types, their division according to form, ownership, destination, structure and material. Containers, definition, development, production, separation of containers by destination, size, substrate, isometric containers. Technical and exploitation characteristics of container

# Goals and expected results:

The student will be familiar with the applicable technologies of transportation, achievements in this technology and forms and aspects of the application of this technology. After completion of the course the student will be able to: 1) analyze the technological processes of transport, 2) develop systems and subsystems of transport technology, 3) apply adequate transport facilities, 4) develop advanced strategies with transportation, 6) recognize the advanced technologies applied in transportation, 7) the benefits derived from proper application of contemporary transportation technologies.

### **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. K. Shabanaj: "Bazat e teknologjisë së transportit", Prishtinë 2015
- 2. B. Williams: "Transport Technology (New Technology), London 2014
- 3. L. Djokic: "Organizacija transportnog prometa", Lubljanë 2013

#### **Course title: Auto CAD**

# **Course description:**

The basics of applying CAD program (formats, standards), knowledge of CAD working tool, application, performance facilities space, orthogonal format, building knowledge in CAD applications (text entry, quantizing, progress means etc.) drawing on non-flat surface and in 3D modelling, etc.

# Goals and expected results:

Students will be familiar with the technique of engineering designing with help of the computer through one of CAD software. After completion of the course the student will be able to: 1) recognize and use the applications of designing, 2) design facilities through engineering designing, 3) design objects in 3D format, 4) draws and frames on the different surface, 5) Demonstrate entering of text, quotation, advanced tools in the CAD application, 6) Understand the general concept of graphical engineering through the use of computers, 7) Explain the advantages of AUTO CAD software in designing.

### **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

# Literature:

- 1. G. Omura, Auto CAD 2015, Computer, library.
- 2. K. Trimcev, Faculty of Mechanical Engineering, technical drawing.
- 3. Freight Transport Association, Designing for Deliveries CD-CAD Templates, Freight Transport Association, 2010.

**Course title: Mechanics** 

**Course description:** 

Definitions. Axiom and links. The system of competitive forces. Elements of graphical statics.

Equilibrium of rigid body in plane. Equilibrium of rigid bodies system in the plane. Elements of the

theory of holders. Ordinal. Friction. System of arbitrary forces in space. The centre of gravity.

Elements of analytical statics.

Goals and expected results:

Students will be familiar with the subject of mechanics and its application in other professional

courses in traffic and transportation. After completion of the course the student will be able to: 1)

analyze the use of mechanical units, 2) determine given speed of the movement of troops, 3)

recognize the elements and theories in mechanics, 4) establish and at the same time to analyze friction

strength of the troops,5) select and breakdown tasks from mechanics; 6) determine the friction

coefficient.

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is

provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the

relevant subject content, based on the competencies to be acquired. In order to carry out learning

methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice, research promotion and a better connection between theory and

practical part.

Literature:

1. L.Arifi: "Mekanika", Prishtinë 2015;

2. Z. Kaliman: "Teorijska mehanika", Rijeka, 2014;

3. K.T.Chau: "Theory of Differential Equations in Engineering and Mechanics", London 2014.

**Course title: Statistics and probability** 

**Course description:** 

Introduction to statistical and descriptive analysis. Based on statistical data. Processing of data.

Tabulation. Graphic statistics. Relative numbers. Analysis of statistical data. Value. Asymmetrical

measures. Combinatory. Basics of probability theory. Definitions of probability. Large numbers. Total

58

probability. Against probability. Multiplying the probability and counting. Bayesova formula. Cases variable in probability and distribution. Patterns of distribution and discrete probability. Continuous variable. Determination of the parameters. And test hypotheses. Regression and correlation analysis. Indices.

Goals and expected results: Development of general competence in statistics and probability. Expansion exercises and tasks to gain knowledge on the subject of early mathematics. After completion of the course the student will be able to: 1) make statistical reports in traffic, 2) analyze and process statistical data 3) assigns probability based on theories applied, 4) determines the strategy of action by using the data statics area and probability for certain organizations, 5) analyze variable cases and distribution in probability, 6) select and breakdown tasks from statistics and probability, 7) understand the importance of statistics and probability in the field of traffic and transportation.

### **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. Xh. Krasniqi: "Statistika dhe probabiliteti", Prishtina 2016
- 2. M.Sullivan: "Statistics: Informed Decisions Using Data", Cambridge 2014
- J. T.McClave "Probability and Statistics: Pearson New International Edition", Cambridge 2014.

Course title: English Language III

### **Course description:**

The text presented on this topic is more or less related to the profession and aims to achieve an adequate vocabulary, as well as enriching speech tools with special emphasis on professional terminology, polite lessons and the word formation process. The course also aims to develop and refine language skills.

# Goals and expected results:

The aim of the course is to expand and increase knowledge for the purpose of enabling students to understand English to use in their future profession. Upon completion of the course, the student will be able to: 1) have knowledge of certain technical terms in English, 2) write and pronounce the terms of technical terms in English, 3) communicate at a certain level using technical terms, 4) recognize and write technical parts of vehicles. 5) understand how to write in English from a dictation to a certain level; 6) explain in English some notions about traffic and transportation.

### **Teaching methodology:**

The teaching method is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is provided for the transfer of knowledge, improvement of skills and abilities of students. The learning method focuses on competencies and learning outcomes. These activities are related to the relevant content of the course, based on the competencies that will be acquired. In order to carry out the learning methods and achieve the objectives, a greater involvement of practical training through projects and professional practice, promotion of research and a better connection between theory and practical part is allowed.

#### Literature:

- 1. M.McCarthy: "Transport English Vocabulary", Cambridgeshire 2014
- 2. B. Bjelobrk: "English transport textbook", Zagreb 2014
- 3. L. Bartolic: "Mechanical Engineering and its terminology", Zagreb 2014.

### **Course title: Software Application**

# **Course description:**

Introduction to Computer Science. Studying algorithms. Ms. Word. Excel. Calculations in Excel. Graphs. PowerPoint. Mathcad Software. Mathematical Operations with Mathcad. Unit Operations-Activities. Graphic presentation of functions using Mathcad.

#### Goals and expected results:

After completion of the course the student will be able to: 1) recognize and analyze hardware and software components, 2) apply the Microsoft package, 3) use some software for communication. 4) solve mathematical problems and problems of technical sciences in general; 5) know basic principles of computer science; 6) understand the notion of programming.

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is

provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the

relevant subject content, based on the competencies to be acquired. In order to carry out learning

methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice, research promotion and a better connection between theory and

practical part.

Literature:

1. Ahmet Shala, Informatike dhe programim

2. Mathcad User Guide & Electronic boks & Documentations Help

3. Ahmet Shala, Software-t Aplikative, Prishtinë 2004-2011

4. Ahmet Shala, Bazat e punes me kompjuter, Prishtinë 2009.

**Specialization Traffic and Transport Engineering** 

SECOND YEAR

**Fourth Semester** 

**Course title: Urban Planning** 

**Course description:** 

Analysis and evaluation of relevant alternatives for the development of road traffic system (alternative

corridors to main roads, impact of relevant factors in traffic planning). In this course, contemporary

methods on movement planning will be applied.

Goals and expected results:

Introduce students to basic concepts of road traffic planning and transport systems required for urban

mobility.

Upon completion of this course, students will be able to:

1. Know the basic concepts of traffic planning.

2. Calculate the demand for movement in different urban areas.

3. Collect and evaluate information related to daily travel requirements.

4. Offer traffic planning alternatives,

5. Understand the role and importance of urban planning,

61

6. Understand urban plans and know how to clarify such plans

Know the basic criteria for road network planning and provide alternative traffic planning.

**Teaching methodology:** 

The content of this course is elaborated through electronic lectures, discussions with students,

seminars and visits to production organizations.

Literature:

1.M.Bixhaku "Planifikimi në komunikacion" Prishtinë, 2011- dispencë

2.M.Bixhaku "Detyra të zgjidhura nga planifikimi në komunikacion" Prishtinë, 2006- dispencë

3. Cvitanic.D,: "Prometna tehnika i prostorno planiranje prometa", Građevinskoarhitektonski fakultet,

Split

4. Jovic.J. "Saobracajno planiranje"- Beograd

**Course title: Road Traffic Safety** 

**Course description:** 

Modern approach to traffic safety research. Basic knowledge. Road traffic safety factors. The main

causes of traffic accidents. Degree of traffic safety. Man as a factor of traffic safety. Vehicle as a

factor of traffic safety. Road as a factor of traffic safety.

Goals and expected results:

The main objective of this course is that the student after attending this course will be able to: 1) have

knowledge of the most common causes of accidents, 2) to know the main safety factors, 3) to know

the preventive measures to avoid road accidents 4) to know the active and passive elements of vehicle

safety, 5) to know the main elements of roads and the environment that are related to traffic safety

**Teaching methodology:** 

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis,

the opportunity is created to transfer knowledge, increase the skills and abilities of students. The form

of learning focuses on competencies and learning outcomes. These activities are related to the content

of the relevant subject based on the competencies to be acquired. In order to achieve forms and

objectives in learning enables greater inclusion of practical training through projects and professional

practice, promoting research and better linking between theory and practice.

Literature:

62

- 1. Ahmet Geca, "Siguria ne trafik I", Prishtinë 2006,
- 2. Ahmet Geca, "Teknikat e sigurisë në trafik I", Prishtinë 2006
- 3. Ahmet Geca, "Ekspertizat teknike ne Trafik", Prishtinë 2017
- 4. PIARC: "Road Safety Manual", 2015
- 5. E. Rune: "The Handbook of Road Safety Measures", Bingley 2015
- 6. Group of authors, Technician Building Manual 6, Building Book, Belgrade, 2013.

### **Course title: Road Infrastructure**

# **Course description:**

Development of roads. Separating roads and grounds. Exploitation characteristics of roads. Influence of vehicles on the road layer. Elements of the road in horizontal projection. Horizontal visibility on turns. Vertical breaking of the level. Elements of the indirect cuts of the route. Lower layers of the road. Upper layers of the road. Highway, road. Road equipment. Following objects in the road. Warning of road. Road signalling standards. Maintenance of roads. Designing of roads. Link-up roads. Network of the city streets. Link-up roads of the city. Parking and garages.

# Goals and expected results:

The main objective of this course is that the student achieves the highest knowledge and competence related to road traffic infrastructure. After completion of the course the student will be able to: 1) analyze the basic concept of roads, 2) plan and develop the road network infrastructure, 3) recognize and compare the elements of the road, 4) make the designing and maintenance of road networks. 5) understand the importance of infrastructure as a key factor in road safety, 6) Understand the process of road construction and signalling.

### **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part

# Literature:

1. R. Duraku: "Infrastruktura në trafik", Prishtinë 2016.

- 2. OECD: "Transport Infrastructure Investment", Paris 2016.
- 3. H. Drewello: "Integrated Spatial and Transport Infrastructure Development", Geneva 2016.

# **Course title: Motor Vehicles**

# **Course description:**

Modern road vehicles. Classification of road vehicles. Systems based on road vehicles. Definitions of engines. Short History of the engines. Separation of engines. Auxiliary systems. Main parts of engines. Cycle of engines. Characteristics of the axis of engines (ecological, energy, exploitation). Types of characteristics. Characteristics of gear. Load characteristics. Universal characteristics. The fuel system of Otto-engines. Systems of gasoline engines. Systems based on the engine. Power transmission systems. Management system. Elements of the system. Separation systems. Braking system. Significance and tasks of the system. Basic characteristics of the braking system. Other equipment in the vehicle

# Goals and expected results:

The main objective of this course is to increase student's performance on motor vehicles in traffic. After completion of the course the student will be able to: 1) examine the technical situation regarding road vehicle, 2) identify the technical aspects of road vehicles, 3) examine the technical condition of vehicles 4) develop strategy work in all systems and mechanisms of vehicles, 5) present the main systems of road vehicles, 6) recognize the role and functioning of all road vehicle equipment.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part

### Literature:

- 1. Prof.dr.Heset Cakolli, Automjetet Motorike, Prishtine, 2010.
- 2. P. Hamilton: "Vehicle Maintenance and Repair", Geneva 2014.
- 3. V. Papic: "Odrazavanje motornih vozila" Saobracajni Fakultet, Beograd 2013.

Course title: Techniques of urban traffic

**Course description:** 

Urban traffic of passengers. The main characteristics of the flow of passengers in urban public

transportation. Technical and exploitation speeds. Methods of collecting and processing data.

Productive lines. Labour productivity, collection system, taxi services. Planning, analysis, evaluation

of the situation in urban public transportation of passengers. Assessment methods and their

application

Goals and expected results:

This course has close links with other courses on urban traffic planning. The main objective of this

course is that the student to be familiar with the technique of urban traffic. After completion of the

course the student will be able to: 1) determine the basic principles of operation of urban traffic, 2)

urban transport planning, 3) analyze and design projects in urban traffic, 4) manage the transport of

goods and people in urban traffic

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is

provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the

relevant subject content, based on the competencies to be acquired. In order to carry out learning

methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice, research promotion and a better connection between theory and

practical part

Literature:

1. M. Krasniqi: "Teknika e trafikut urban", Prishtinë 2016

2. V. Cerovac: "Tehnika i sigurnost prometa", Zagreb 2014

3. W. Weidlich "An Integrated Model of Transport and Urban Evolution", Berlin 2014.

**Course title: German Language** 

**Course description:** 

Themen neu I dhe Themen neu II

Lecture 1-15. Oral and written practice, conversation, grammar (preposition, the past tense of verbs,

adjectives - comparison of adjectives, the perfect tense of regular verbs, active and passive voice;

subordinated clauses).

65

# Goals and expected results:

The objective of this course is students to have knowledge of literature and grammar of German. After completion of the course the student will be able to: 1) have a solid knowledge of German, 2) write and read in German, 3) communicate to a certain level, 4) acknowledge the fundamental elements of communication, 5) recognize the advanced technologies applied in transportation, 6) the benefits derived from proper application of contemporary transportation technologies.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part

#### Literature:

- 1. G.Stern: "Essential German Grammar", New York 2015
- P.Coggle: "Willkommen!: Student's Book: A Course in German for Adult Beginners", Berlin 2015
- 3. Dialog Beruf Starter, Krs und Arbeitsbuch, CD, Fachliteratur fuer Verkehrwissenschaft,2015

### Course title: Traffic medicine

#### **Course description:**

Cases of traffic accidents. Road traffic. Aeronautics. Maritime and water traffic. Telecommunications. Man as an essential factor in traffic safety. The impact of environmental health and safety of participants in traffic. Injury traffic accident. Thermal injury in traffic. Chemical injuries in traffic. Abnormal conditions and diseases that can endanger traffic safety. Organization of aid and medical aid in traffic

# Goals and expected results:

The role of medicine as prevention in normal progress of traffic. After completion of the course the student will be able to: 1) implement preventive measures in cases of traffic accidents, 2) medical report communicate injured in traffic accident, 3) assign priorities to traffic accident, 4) organize and

manage situation with the injured in traffic accident, 5) know about other emergency services, 6) among other, to guide persons involved in accidents

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. Q.Beqiraj; "Mjekësia në trafik", Prishtinë 2017
- 2. P. Barss P and G. Smith: "Injury prevention: An International Perspective, Oxford 2015
- 3. L. Isolani L: "EU policy orientations on road accidents prevention and workplace health promotion in the transport sector", Rome 2014.

#### THIRD YEAR

#### Fifth semester

Course title: Loading and unloading mechanisms

### **Course description:**

Classification of vehicles. General characteristics and loads in construction of weightlifters vehicles. Equipment for cargo capture. Cords, chains, pulley and tumbler. Prohibited and inhibitive equipment. Mechanisms of transport and weightlifters vehicles. Loading mechanisms of internal transport

# Goals and expected results:

The main objective of this course is that student achieves high-level knowledge about the mechanisms of charge transport in motor vehicles. After completion of the course the student will be able to: 1) know how to apply and develop types, classification and allocation of mechanisms for loading and unloading, 2) to analyze the universal means and their properties, 3) analyze standard elements, form and results of working conveyer, 4) plan and develop the elements of derricks by fully recognizing the regulations on safety and preventive measures when working with derricks.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part

#### Literature:

- 1. Krasniqi: "Mekanizmat e ngarkim shkarkimit", Prishtinë, 2005
- 2. M. Clarke, International Carriage of Goods by Road, 5th Rev, 2011

# **Course title: Transport Economics**

# **Course description:**

Traffic and road transport. Road Traffic Organization. Car park. Travel. Amortization, rentability, economicity. Exploitation costs of road transport. Transport organization of passengers in road traffic. Organizing road transport in large distance. Labour costs of vehicles. Safety of communications systems. Economic of Road Traffic

# Goals and expected results:

After analysis of the transport market (structure and dynamics) followed by consideration of transport policy. Getting to know the way of economic decision making in the field of transport. After completion of the course the student will be able to: 1) compare economic of organizational systems, 2) manage the costs of transport, 3) determine the cost and form of exploitation of transport, 4) coordinate and resolve problems through numerical methods from economic of traffic. 5) fundamental factors and traffic processes in the economic functioning of the system; 6) Traffic systems and traffic policies; 7) economic principles of road transportation.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice, research promotion and a better connection between theory and

practical part.

Literature:

1. R.Likaj, Ekonomika e komunikacionit, Prishtinë 2015.

2. Q. Buqinca, "Organization and traffic economic", Prishtinë 2014.

3. K. Button, "Transport Economics", 3rd Edition, Gloucestershire 2014.

**Course title: Transport and Logistics** 

**Course description:** 

Global factors. Theories and models. Information management features. External information. Global

markets. International agreements and conventions. Organizational indicators. Strategic investment.

Cost comparison and selection. Pricing policies and risk in business. Resource planning for

shareholders' objectives. The contribution of organizations to a sustainable environment. Strategic

relations. Competitive structures. Collaborative structures. Competition models. Risk analysis.

Performance failure, etc.

Goals and expected results:

Upon completion of the course the student will be able to: 1) Assess the global factors that affect an

organization. 2) Evaluate alternative models for analyzing the global business environment. 3) Invent

strategies to match the external information needs of an organization. 4) Critically evaluate the

advantages and disadvantages of engaging with a global shareholder

**Teaching methodology:** 

Lectures, Exercise, Seminary work, Work on the ground Exam prearation

Literature:

1. Doci: "Logjistika deh transporti", Prishtinë, 2015

2. The Chartered Institute of Logistic and Transport- The Knowledge Center,

London, Uk, 2016.

Course title: Adjustment of circulation in traffic

**Course description:** 

Basic traffic movement characteristics and diagram. Recording/counting traffic movement.

69

Illuminated signaling. Regulation of traffic with the help of illuminated signals. Automatic regulating system operation concept. Saturated movements and the capacity of individual signaled crossroads. Regulating passers-by movement. The elements of the signaling plan. Calculation of signaling plan.

# Goals and expected results:

Upon completion of this course, students will be able to:

- 1. recognize the basic characteristics of traffic movement,
- 2. know the systems of automatic traffic movement regulation,
- 3. draft plans and projects related to traffic movement,
- 4. know and apply all forms of movement in traffic, calculate the signaling plan.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part

### Literature:

- 1. Xh. Perjuci, A. Alimehaj, G. Hoxha: "Rregullimi i qarkullimit në komunikacion", Prishtinë 2012,
- 2. Xh. Perjuci, "Permbledhje detyrash nga rregullimi i qarkullimit në komunikacion", Prishtinë 2011
- 3. C.F.Daganzo: "Fundamentals of Transportation and Traffic Operations", Pergamon 2015
- 4. Dr. Vesna Cerovic "Tehnika i sigurnost prometa", Zagreb 2014.

#### Course title: Research methods of road traffic

# **Course description:**

The course prepares students in the field of research scientific and research projects. The main purpose of the Research Methods course is to introduce students to quantitative and qualitative methods for conducting meaningful inquiry and research. They will gain an overview of research intent and design, methodology and technique, format and presentation, and data management and analysis informed by commonly used statistical methods.

# Goals and expected results:

The purpose of this course is to prepare students in the field of scientific research methods, which will serve them to facilitate the preparation of research projects and scientific research work in general (during the time of studies, but also after the completion of studies). The course will focus on different methods of research work, the knowledge of which is a prerequisite for study work.

# **Teaching methodology:**

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is created to transfer knowledge, increase the skills and abilities of students. The form of learning focuses on competencies and learning outcomes. These ctivities are related to the content of the relevant subject based on the competencies to be acquired.

This module should also develop students' following skills: Communication and presentation skills, Teamwork skills, Skills of interpreting numbers, tables and graphs, Writing skills, Teaching methodology: lecture, theoretical and practical exercises, discussion, group work and seminars.

Upon successful completion of the course, the student should be able to:know basically the concepts of research (concepts, definitions, theories and models), research methodology and strategies; understand different types of data and their analysis, sampling; study and design of research instruments (structured questionnaires, semi-structured questionnaires, case studies, etc.); choose the right research method and know all the stages related to

drafting a scientific research paper; apply the appropriate methods mainly from the object of research or study; Seminar paper (case study) 30% Exam 70%.

#### Literature:

- 1. Matthews, B. dhe Ross, L., (2010), Metodat Hulumtimit: Udhëzues praktik për shkencat
- 2. sociale dhe humane. Qendra për Arsim Demokratik: Tiranë
- 3. Literatura shtesë: 2. Shamiq, Midhat, Si shkruhet vepra shkencore, "Logos A", Shkup, 2006.
- 4. Elmazi, L., Hasani, B. (2009). Metodat e kërkimit.

# Course title: Psychology of Traffic

### **Course description:**

Psychology of Communication. Relationship between the district and man. People as component of traffic safety. Psychological components of perception.

Perception of space. Perception of time. Perception of speed of movement of the vehicle. Processing of information. Attention: The movement of attention. Objective factors of attention. Attention to subjective factors. Disorders of attention and perception. Delusions. Hallucinations. Tense human physical actions, frustration, external and internal obstacles. Way of reaction with frustration.

# Goals and expected results:

The objective of this performance increase understanding of the student with the psychology, development of psychology and psychology major tasks. After completion of the course the student will be able to: 1) identify the concept of psychology, 2) determine the subjective and objective factors of attention, 3) liaise importance of psychology in traffic, 4) demonstrate communication skills with the district

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

### Literature:

- 1. N. Fejzullahu: "Psikologjia e trafikut", Prishtinë 2016
- 2. B.Porter: "Handbook of Traffic Psychology", Virgjina 2014
- 3. T.Vanderblit: "Why We Drive the Way We Do (and What It Says About Us)", New York 2014

#### Course title: German Language II

# **Course description:**

Themen neu I and Themen neu II. Lecture 1-15. Oral and written exercises, conversation, Grammar (Prepositions, past tense of verbs, adjectives - inflection and scaling of adjectives, imperfect tense of regular verbs, active and passive tenses; dependent sentences).

# Goals and expected results:

The objective of this course is to acquaint students with the literature and grammar of the German language. Upon completion of the course the student will be able to: 1) have a solid knowledge of

German, 2) read and write in German, 3) communicate to a certain degree, 4) know the basic elements

of traffic, 5) know some terms of traffic, 6) write correctly some notions related to traffic, 7)

understand the types of transport in German.

**Teaching methodology:** 

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis,

the opportunity is created to transfer knowledge, increase students' skills and abilities. The form of

learning focuses on competencies and learning outcomes. These activities are related to the content of

the respective subject based on the competencies to be acquired. In order to achieve forms and

objectives in learning enables greater inclusion of practical training through projects and professional

practice, promoting research and better linking between theory and practice.

Literature:

1. G.Stern: "Essential German Grammar", New York 2015

2. P.Coggle: "Willkommen!: Student's Book: A Course in German for Adult Beginners", Berlin

2015

3. Dialog Beruf Starter, Krs und Arbeitsbuch, CD, Fachliteratur fuer Verkehrwissenschaft, 2015

THIRD YEAR

Six semester

**Independent project – thesis** 

In the last semester the student is obliged to prepare and publicly defend an independent project, which

is evaluated with 30 ECTS credit points. The student should be determined in what field he / she will

develop this project and then this project should come as a result of his / her research during the

internship in the partner institutions / companies of the Tempulli Academy. Upon successful completion

of this project, the student is obliged to write his research work in the form of a dissertation and defend

it publicly, which is considered that the student completes the registered studies in full.

**Specialization: Engineering and Infrastructure** 

SECOND YEAR

**Fourth Semester** 

**Course title: Urban Planning** 

**Course description:** 

Analysis and evaluation of relevant alternatives for the development of road traffic system (alternative

corridors to main roads, impact of relevant factors in traffic planning). In this course, contemporary

methods on movement planning will be applied.

**Goals and expected results:** 

Introduce students to basic concepts of road traffic planning and transport systems required for urban

mobility.

Upon completion of this course, students will be able to: 1) Know the basic concepts of traffic

planning, 2) Calculate the demand for movement in different urban areas, 3) Collect and evaluate

information related to daily travel requirements, 4) Offer traffic planning alternatives, 5) Understand

the role and importance of urban planning, 6) Understand urban plans and know how to clarify such

plans, 7) Know the basic criteria for road network planning and provide alternative traffic planning.

**Teaching methodology:** 

The content of this course is elaborated through electronic lectures, discussions with students,

seminars and visits to production organizations.

Literature:

1.M.Bixhaku "Planifikimi në komunikacion" Prishtinë, 2011- dispencë

2.M.Bixhaku "Detyra të zgjidhura nga planifikimi në komunikacion" Prishtinë, 20016- dispencë

3. Cvitanic. D.: "Prometna tehnika i prostorno planiranje prometa", Građevinskoarhitektonski fakultet,

Split

4. Jovic.J. "Saobracajno planiranje"- Beograd

Course title: Road Traffic Safety

**Course description:** 

Modern approach to traffic safety research. Basic knowledge. Road traffic safety factors. The main

causes of traffic accidents. Degree of traffic safety. Man as a factor of traffic safety. Vehicle as a

factor of traffic safety. Road as a factor of traffic safety.

Goals and expected results:

The main objective of this course is that the student after attending this course will be able to: 1) have

knowledge of the most common causes of accidents, 2) to know the main safety factors, 3) to know the preventive measures to avoid road accidents 4) to know the active and passive elements of vehicle safety, 5) to know the main elements of roads and the environment that are related to traffic safety

## **Teaching methodology:**

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is created to transfer knowledge, increase the skills and abilities of students. The form of learning focuses on competencies and learning outcomes. These activities are related to the content of the relevant subject based on the competencies to be acquired. In order to achieve forms and objectives in learning enables greater inclusion of practical training through projects and professional practice, promoting research and better linking between theory and practice.

#### Literature:

- 1. Ahmet Geca, "Siguria ne trafik I", Prishtinë 2016,
- 2. Ahmet Geca, "Teknikat e sigurisë në trafik I", Prishtinë 2016
- 3. Ahmet Geca, "Ekspertizat teknike ne Trafik", Prishtinë 2017
- 4. PIARC: "Road Safety Manual", 2015
- 5. E. Rune: "The Handbook of Road Safety Measures", Bingley 2015
- 6. Group of authors, Technician Building Manual 6, Building Book, Belgrade, 2013.

## **Course title: Environmental Engineering**

# **Course description:**

Global factors. Theories and models. Characteristics of information management. External information. Global markets. International agreements and conventions. WTO, GATT, free trade zone

# Goals and expected results:

The main objective of this course is that the student to achieve to the requirements of the global environment.

After completion of the course the student will be able to: 1) recognize factors affecting a global organization, 2) evaluate alternative models for analyzing global business environment, 3) devise a strategy for compliance needs for a foreign intelligence organization, 4) examine the strengths and shortcomings of involvement with a global share, 5) have knowledge about collection, classification and recycling of waste, 6) manage solid waste, 7) recognize the importance of national and international legal regulations in this field, 8) know about the types of impacts on the environment.

## **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. Naunović, Z., Jaćimović, N., Kostić, D., Ivetić, M., Fundamentals of Environmental Engineering, 2014.
- 2. Written teaching materials and presentations, from lectures on the subject page.

#### **Course title: Road Infrastructure**

# **Course description:**

Modern road vehicles. Classification of road vehicles. Systems based on road vehicles. Definitions of engines. Short History of the engines. Separation of engines. Auxiliary systems. Main parts of engines. Cycle of engines. Characteristics of the axis of engines (ecological, energy, exploitation). Types of characteristics. Characteristics of gear. Load characteristics. Universal characteristics. The fuel system of Otto-engines. Systems of gasoline engines. Systems based on the engine. Power transmission systems. Management system. Elements of the system. Separation systems. Braking system. Significance and tasks of the system. Basic characteristics of the braking system. Other equipment in the vehicle

# Goals and expected results:

The main objective of this course is to increase student's performance on motor vehicles in traffic. After completion of the course the student will be able to: 1) examine the technical situation regarding road vehicle, 2) identify the technical aspects of road vehicles, 3) examine the technical condition of vehicles 4) develop strategy work in all systems and mechanisms of vehicles, 5) present the main systems of road vehicles, 6) recognize the role and functioning of all road vehicle equipment.

#### **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. Prof.dr. Heset Cakolli, Automjetet Motorike, Prishtine, 2010.
- 2. P. Hamilton: "Vehicle Maintenance and Repair", Geneva 2014.
- 3. V. Papic: "Odrazavanje motornih vozila" Saobracajni Fakultet, Beograd 2013.

## **Course title: Traffic Flow Theory**

# **Course description:**

Vehicle classification according to ECE, Vehicle Performance, Technical Characteristics, Wheels and Pneumatics, Power Transmission Process, System and Brake Process Advanced Electronic Systems

# Goals and expected results:

Familiarization of students with the classification of vehicles according to European norms, Construction of wheels and tires, their technical characteristics, Forces and resistances which act on the vehicle, Braking process, braking forces.

Upon completion of this course (subject) students will be able to: 1) To know the types of vehicles, their role, the processes they perform, etc. 2) To calculate the technical characteristics, 3) To calculate the external forces, resistance forces, 4) To calculate the forces and moments of braking.

# **Teaching methodology:**

Lectures through presentations, exercises with tasks and concrete examples, exercises in the laboratory, seminar papers, tests, discussions.

## Literature:

- 1. Dr. sc. Heset Cakolli, Teoria e lëvizjes së automjeteve, Prishtinë, 2015
- 2. Dr. sc. Heset Cakolli, Teoria e lëvizjes së automjeteve, Praktikum, Prishtinë, 2012
- 3. Reza N. Jazar, Vehicle Dynamics Theory and Application ,Manhattan College,2018

Course title: German Language I

**Course description:** 

Themen neu I dhe Themen neu II

Lecture 1-15. Oral and written practice, conversation, grammar (preposition, the past tense of verbs, adjectives - comparison of adjectives, the perfect tense of regular verbs, active and passive voice;

subordinated clauses).

Goals and expected results:

The objective of this course is students to have knowledge of literature and grammar of German...

After completion of the course the student will be able to: 1) have a solid knowledge of German, 2)

write and read in German, 3) communicate to a certain level, 4) acknowledge the fundamental

elements of communication, 5) recognize the advanced technologies applied in transportation, 6) the

benefits derived from proper application of contemporary transportation technologies.

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is

provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the

relevant subject content, based on the competencies to be acquired. In order to carry out learning

methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice, research promotion and a better connection between theory and

practical part

Literature:

1. G.Stern: "Essential German Grammar", New York 2015

2. P.Coggle: "Willkommen!: Student's Book: A Course in German for Adult Beginners", Berlin

2015

Dialog Beruf Starter, Krs und Arbeitsbuch, CD, Fachliteratur fuer Verkehrwissenschaft, 2015

**Course title: Drainage System** 

**Course description:** 

Types of drainage systems (surface and subsurface) and analysis of problems solved by constructing

them. Mechanical-physical properties of the soil required for the calculation of drainage. Methods for

calculating vertical infiltration. Conditions for the application of subsurface drainage. Elements of

subsurface drainage systems based on the horizontal drainage of pipes and classification according to

the provisions. Criteria for designing the horizontal drainage of pipes and calculation of drainage system elements: the distance between the, the diameter and drainage fall. The criteria for designing protective filters. Elements and availability of vertical drainage systems (wells) and the criteria for dimensioning. Calculation of vertical drainage elements in stationary and non-stationary conditions. Proof for the calculation of unknown parameters of porous medium. Drainage of buildings in the construction phase. Results of drainage construction in different soil surfaces. Elements of the surface drainage system. Drainage of roads, railways and airports: calculation of system elements. Application of rational theory.

# Goals and expected results:

The main objective of this course is to acquaint the student with the basic drainage types, characteristics and elements of water drainage systems. Calculation methods of surface and subsurface water drainage. After completing the course, students will be able to: 1) carry out a preliminary solution to the drainage system, 2) hydrological analyses of respective precipitation, 3) calculation of porous medium parameters based on the given results of the research and system based solutions, 4) hydraulic calculations and dimensioning of drainage system elements,5) dimensioning elements of the drainage system; 6) knowledge of drainage of roads, railways and airports; 7) calculate system elements and apply rational theory.

## **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

## Literature:

- Dimitrije Avakumović, Hydrotechnical Melioration Elements, Faculty of Civil Engineering, Novi Sad, 2013.
- Dimitrije Avakumović, Hydrotechnical Melioration Drainage, Faculty of Civil Engineering, Novi Sad, 2013.
- 3. Dimitrije Avakumović, Miloš Stanić, Hydrotehnic Melioration a collection of tasks, Faculty of Civil Engineering, Novi Sad, 2015.

#### THIRD YEAR

#### Fifth semester

Course title: Design and Construction of Hydraulic

# **Course description:**

Preliminary works: plans, subtracts, planet, substrates, design procedures. Preparatory works: protection of construction facilities, neighboring buildings and cultural heritage and of surface and ground water. Implementation of work: specific work for construction of hydraulic infrastructure. Technical acceptance of objects. Documentation from the field of hydraulic infrastructure and permit from competent authorities. Design of the facility. Utilization of construction planning and maintenance.

# Goals and expected results:

The main objective of this course is to equip students with capacities to design and construct hydraulic infrastructure facilities. After completing the course, students will be able to: 1) have knowledge in the protection of construction facilities, nearby buildings and cultural heritage of surface and groundwater, 2) carry out specific works for the construction of hydro technical infrastructure, 3) prepare and complete documentation from the field of hydraulic infrastructure for obtaining a work permit by competent authorities, 4) plan, build, monitor and maintain hydraulic infrastructure facilities, 5) supervise and maintain hydraulic infrastructure facilities, 6) know the hydraulic infrastructure of close buildings and those of cultural heritage, 7) treat the hydraulic infrastructure of surface and underground waters.

## **Teaching methodology:**

On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice.

#### Literature:

- 1. Hajdin G., Fundamentals of Hydraulics, Faculty of Civil Engineering, University of Sarajeo, 2011
- 2. Despotović J., Drainage of Rain Water, Faculty of Civil Engineering, University of Zagreb, 2018.
- 3. Group of authors, Technician Building Manual 6, Building Book, Belgrade, 2013.

Course title: Organization of Railway Traffic

**Course description:** 

Basic principles of automatic regulation. Static and dynamic characteristics of the elements. Dynamic

response of the elements of the first and second order. Sensors of linear and angular displacement.

Rotational speed transducers. Force sensors. Temperature sensors. Measurement of level, pressure and

fluid flow. Other important sensors of chemical and physical sizes. Regulators. Implementation of

microcontrollers. Electric, hydraulics, pneumatics actuators. Recognition with automation processes

in railway companies in Europe.

Goals and expected results:

The main objective of this course is that student achieves high competence on automation of railway

traffic. After completion of the course the student will be able to: 1) appoint and operate with

automatic adjustment, 2) compare and recognize equipment and technical processes in railway traffic

3) appoint and measure the pressure and fluid flow in rail vehicles, 4) research and apply advanced

standards in automatic of rail traffic, 5) know the types of sensors as well as the linear and angular

displacement methods; 6) measure the level, pressure, and flow of fluids.

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is

provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the

relevant subject content, based on the competencies to be acquired. In order to carry out learning

methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice. research promotion and a better connection between theory and

practical part

Literature:

1. Xh. Ramosaj: "Automatika në trafikun hekurudhor', Prishtinë 2016

2. M. Gidwani: "Station Passenger Information System" Sydney 2015

3. M. Zivkovic: "Motorni sa unutrasnjem sogornovanjem", Beograd 2014.

**Course title: Transport Economics** 

**Course description:** 

Traffic and road transport. Road Traffic Organization. Car park. Travel. Amortization, rentability,

economicity. Exploitation costs of road transport. Transport organization of passengers in road traffic. Organizing road transport in large distance. Labour costs of vehicles. Safety of communications systems. Economic of Road Traffic

## Goals and expected results:

After analysis of the transport market (structure and dynamics) followed by consideration of transport policy. Getting to know the way of economic decision making in the field of transport. After completion of the course the student will be able to: 1) compare economic of organizational systems, 2) manage the costs of transport, 3) determine the cost and form of exploitation of transport, 4) coordinate and resolve problems through numerical methods from economic of traffic. 5) fundamental factors and traffic processes in the economic functioning of the system; 6) Traffic systems and traffic policies; 7) economic principles of road transportation.

## **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

# Literature:

- 1. R.Likaj, Ekonomika e komunikacionit, Prishtinë 2015.
- 2. Q. Buqinca, "Organization and traffic economic", Prishtinë 2014.
- 3. K. Button, "Transport Economics", 3rd Edition, Gloucestershire 2014.

## Course title: Adjustment of circulation in traffic

## **Course description:**

Basic traffic movement characteristics and diagram. Recording/counting traffic movement. Illuminated signaling. Regulation of traffic with the help of illuminated signals. Automatic regulating system operation concept. Saturated movements and the capacity of individual signaled crossroads. Regulating passers-by movement. The elements of the signaling plan. Calculation of signaling plan.

## Goals and expected results:

Upon completion of this course, students will be able to: 1)recognize the basic characteristics of

traffic movement, 2) know the systems of automatic traffic movement regulation, 3) draft plans and projects related to traffic movement, 4) know and apply all forms of movement in traffic, calculate the signaling plan.

## **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part

#### Literature:

- 1. Xh. Perjuci, A. Alimehaj, G. Hoxha: "Rregullimi i qarkullimit në komunikacion", Prishtinë 2012,
- 2. Xh. Perjuci, "Permbledhje detyrash nga rregullimi i qarkullimit në komunikacion", Prishtinë 2011.
- 3. C.F.Daganzo: "Fundamentals of Transportation and Traffic Operations", Pergamon 2015
- 4. Dr. Vesna Cerovic "Tehnika i sigurnost prometa", Zagreb 2014.

#### **Course title: Railway infrastructure maintenance**

# **Course description:**

Development of railway transport. Exploitation characteristics of railways. Influence of vehicles on the railway. Elements of the railway in horizontal projection. Horizontal visibility on turns. Vertical breaking of the level. Elements of the indirect cuts of the route. Lower layers of the railway. Upper layers of the railway. Trains equipment. Following objects in the railway. Warning of railway. Railway signaling standards. Maintenance of railways. Designing of railways. Network of the city streets. Station and parking of trains.

# Goals and expected results:

The main objective of this course is that the student achieves the highest knowledge and competence related to railway transport and traffic infrastructure. After completion of the course the student will be able to: 1) analyze the basic concept of railway transport, 2) plan and develop the railway and network infrastructure, 3) recognize and compare the elements of the railway lines and transport, 4)

make the designing and maintenance of railway and networks, 5) set up the railway signaling plan, 6) know the elements of indirect abbreviations of roads, 7) recognize the lower layers and the upper layers of the railroad.

# **Teaching methodology:**

Lectures through presentations, exercises with assignments and concrete examples, terrain exercises, seminars, tests, discussions.

#### Literature:

- 1. F.Shala: "Infrastruktura hekurudhore", Prishtinë, 2010
- 2. E. A. Gibbins, Railway Conversion The Impractical Dream, Leisure Products, 2011
- 3. V.A. Profillidis, Railway Management and Engineering, Gower Publishing Limited, 3rd Edition, 2009.

#### Course title: Research methods of road traffic

## **Course description:**

The course prepares students in the field of research scientific and research projects.

# Goals and expected results:

The purpose of this course is to prepare students in the field of scientific research methods, which will serve them to facilitate the preparation of research projects and scientific research work in general (during the time of studies, but also after the completion of studies). The course will focus on different methods of research work, the knowledge of which is a prerequisite for study work.

## **Teaching methodology:**

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is created to transfer knowledge, increase the skills and abilities of students. The form of learning focuses on competencies and learning outcomes. These activities are related to the content of the relevant subject based on the competencies to be acquired.

This module should also develop students' following skills:

Communication and presentation skills, Teamwork skills, Skills of interpreting numbers, tables and graphs, Writing skills.

## **Teaching methodology:**

lecture, theoretical and practical exercises, discussion, group work and seminars.

Upon successful completion of the course, the student should be able to: 1) know basically the concepts of research (concepts, definitions, theories and models), research methodology and strategies, 2) understand different types of data and their analysis, sampling, 3) study and design of research instruments (structured questionnaires, semi-structured questionnaires, case studies, etc.), 4) choose the right research method and know all the stages related to drafting a scientific research paper, 5) apply the appropriate methods mainly from the object of research or study

Seminar paper (case study) 30% Exam 70%

#### Literature:

- 1. Matthews, B. dhe Ross, L., Metodat Hulumtimit: Udhëzues praktik për shkencat sociale dhe humane. Qendra për Arsim Demokratik: Tiranë
- 2. Literatura shtesë: 2. Shamiq, Midhat, Si shkruhet vepra shkencore, "Logos A", Shkup, 2016.
- 3. Elmazi, L., Hasani, B. (2019). Metodat e kërkimit.

# **Course title: Transport and Logistics**

## **Course description:**

Global factors. Theories and models. Information management features. External information. Global markets. International agreements and conventions. Organizational indicators. Strategic investment. Cost comparison and selection. Pricing policies and risk in business. Resource planning for shareholders' objectives. The contribution of organizations to a sustainable environment. Strategic relations. Competitive structures. Collaborative structures. Competition models. Risk analysis. Performance failure, etc.

## Goals and expected results:

Upon completion of the course the student will be able to: 1) Assess the global factors that affect an organization. 2) Evaluate alternative models for analyzing the global business environment. 3) Invent strategies to match the external information needs of an organization. 4) Critically evaluate the advantages and disadvantages of engaging with a global shareholder

#### **Teaching methodology:**

Lectures, Exercise, Seminary work, Work on the ground Exam prearation

## Literature:

1. Doci: "Logjistika dhe transporti", Prishtinë, 2014

2. The Chartered Institute of Logistic and Transport- The Knowledge Center,

London, Uk, 2018.

Course title: German Language II

**Course description:** 

Themen neu I and Themen neu II. Lecture 1-15. Oral and written exercises, conversation, Grammar

(Prepositions, past tense of verbs, adjectives - inflection and scaling of adjectives, imperfect tense of

regular verbs, active and passive tenses; dependent sentences).

Goals and expected results:

The objective of this course is to acquaint students with the literature and grammar of the German

language. Upon completion of the course the student will be able to: 1) have a solid knowledge of

German, 2) read and write in German, 3) communicate to a certain degree, 4) know the basic elements

of traffic, 5) know some terms of traffic, 6) write correctly some notions related to traffic, 7)

understand the types of transport in German.

**Teaching methodology:** 

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis,

the opportunity is created to transfer knowledge, increase students' skills and abilities. The form of

learning focuses on competencies and learning outcomes. These activities are related to the content of

the respective subject based on the competencies to be acquired. In order to achieve forms and

objectives in learning enables greater inclusion of practical training through projects and professional

practice, promoting research and better linking between theory and practice.

Literature:

1. G.Stern: "Essential German Grammar", New York 2015

2. P.Coggle: "Willkommen!: Student's Book: A Course in German for Adult Beginners", Berlin

2015

3. Dialog Beruf Starter, Krs und Arbeitsbuch, CD, Fachliteratur fuer Verkehrwissenschaft, 2015

THIRD YEAR

Six semester

**Independent project - thesis** 

In the last semester the student is obliged to prepare and publicly defend an independent project,

which is evaluated with 30 ECTS credit points. The student should be determined in what field he / she will develop this project and then this project should come as a result of his / her research during the internship in the partner institutions / companies of the Tempulli Academy. Upon successful completion of this project, the student is obliged to write his research work in the form of a dissertation and defend it publicly, which is considered that the student completes the registered studies in full.

## **Specialization Urban Planning and Mobility**

#### SECOND YEAR

#### **Fourth Semester**

**Course title: Urban Planning** 

## **Course description:**

Analysis and evaluation of relevant alternatives for the development of road traffic system (alternative corridors to main roads, impact of relevant factors in traffic planning). In this course, contemporary methods on movement planning will be applied.

## Goals and expected results:

Introduce students to basic concepts of road traffic planning and transport systems required for urban mobility.

Upon completion of this course, students will be able to: 1) Know the basic concepts of traffic planning, 2) Calculate the demand for movement in different urban areas, 3) Collect and evaluate information related to daily travel requirements, 4) Offer traffic planning alternatives, 5) Understand the role and importance of urban planning, 6) Understand urban plans and know how to clarify such plans

Know the basic criteria for road network planning and provide alternative traffic planning.

# **Teaching methodology:**

The content of this course is elaborated through electronic lectures, discussions with students, seminars and visits to production organizations.

## Literature:

1.M.Bixhaku "Planifikimi në komunikacion" Prishtinë, 2011- dispencë

2.M.Bixhaku "Detyra të zgjidhura nga planifikimi në komunikacion" Prishtinë, 2016- dispencë

3. Cvitanic. D.: "Prometna tehnika i prostorno planiranje prometa", Građevinskoarhitektonski fakultet,

Split

4. Jovic.J. "Saobracajno planiranje"- Beograd

Course title: Road Traffic Safety

**Course description:** 

Modern approach to traffic safety research. Basic knowledge. Road traffic safety factors. The main causes of traffic accidents. Degree of traffic safety. Man as a factor of traffic safety. Vehicle as a

factor of traffic safety. Road as a factor of traffic safety.

Goals and expected results:

The main objective of this course is that the student after attending this course will be able to: 1) have knowledge of the most common causes of accidents, 2) to know the main safety factors, 3) to know the preventive measures to avoid road accidents 4) to know the active and passive elements of vehicle

safety, 5) to know the main elements of roads and the environment that are related to traffic safety

**Teaching methodology:** 

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is created to transfer knowledge, increase the skills and abilities of students. The form of learning focuses on competencies and learning outcomes. These activities are related to the content of the relevant subject based on the competencies to be acquired. In order to achieve forms and objectives in learning enables greater inclusion of practical training through projects and professional

practice, promoting research and better linking between theory and practice.

Literature:

7. Ahmet Geca, "Siguria ne trafik I", Prishtinë 2016,

8. Ahmet Geca, "Teknikat e sigurisë në trafik I", Prishtinë 2006

9. Ahmet Geca, "Ekspertizat teknike ne Trafik", Prishtinë 2017

10. PIARC: "Road Safety Manual", 2015

11. E. Rune: "The Handbook of Road Safety Measures", Bingley 2015

12. Group of authors, Technician - Building Manual 6, Building Book, Belgrade, 2013.

**Course title: Traffic Flow Theory** 

**Course description:** 

Vehicle classification according to ECE, Vehicle Performance, Technical Characteristics, Wheels and

Pneumatics, Power Transmission Process, System and Brake Process Advanced Electronic Systems

Goals and expected results:

Familiarization of students with the classification of vehicles according to European norms,

Construction of wheels and tires, their technical characteristics, Forces and resistances which act on

the vehicle, Braking process, braking forces.

Upon completion of this course (subject) students will be able to: 1)To know the types of vehicles,

their role, the processes they perform, etc. 2) To calculate the technical characteristics, 3) To calculate

the external forces, resistance forces, 4) To calculate the forces and moments of braking.

**Teaching methodology:** 

Lectures through presentations, exercises with tasks and concrete examples, exercises in the

laboratory, seminar papers, tests, discussions.

Literature:

1. Dr. sc. Heset Cakolli, Teoria e lëvizjes së automjeteve, Prishtinë, 2010

2. Dr. sc. Heset Cakolli, Teoria e lëvizjes së automjeteve, Praktikum, Prishtinë, 2009

3. Reza N. Jazar, Vehicle Dynamics Theory and Application, Manhattan College, 2008

**Course title: Non-motorized Transportations** 

**Course description:** 

History of bicycle/pedestrian planning. Overview of bicycle. Overview of pedestrian planning

process. Bicycle planning methods. Pedestrian planning methods. Results of walkability and bike

ability assessment.

Goals and expected results:

This course reviews the role of bicycling and walking as key forms of active transportation in a

multimodal system. The benefits of bicycling and walking, infrastructure needs, and planning and

policy issues will be discussed. Best practices in planning for walking and bicycling will also be

conveyed. At the end of this lesson students will be able to:

1) Explain the social, economic, health and environmental benefits of walking and biking, 2)

Demonstrate their understanding of best practices in planning for non-motorized transportation, 3)

Know about sidewalks, crosswalks, paths and bikelanes, 4) Know correct specific roadway hazards to

non-motorized transport, 5) Practice work on including reducing conflicts between users, and maintaining cleanliness

# **Teaching methodology:**

- Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.
- Protected Bike Lane video
- View the video via the link provided in the lesson plan.
- Encourage students to discuss their findings from the walkability assessment.

#### Literature:

- Tumlin, J. (2012). Sustainable transportation planning: Tools for creating vibrant, healthy, and resilient communities. Hoboken, NJ: John Wiley & Sons, Inc. o Chapter 6: Pedestrians o Chapter
- 2. Bicycles.Initiative for Bicycle and Pedestrian Innovation. (2012). Creating walkable + bikeable communities: A user guide to developing pedestrian and bicycle master plans.

## **Course title: Project Management**

## **Course description:**

Investment and project management is an integration of investment planning, analysis and evaluation and project management, respectively the project cycle focusing on real investments as opposed to financial investments treated in other subjects. Understanding the project. Understanding investments and the investment process. Investment Study: technological solutions, location and organizational aspects of management. Financial analysis. Social and economic analysis. Sensitivity and risk analysis. Project Implementation Management - Introduction to project management. WBS and time spent planning. Project organization and control, reporting, evaluation. Introduction and exercises in Microsoft Project Management.

# Goals and expected results:

The purpose of this course is to build capacity (knowledge and skills) to effectively manage projects

in accordance with international standards and methodologies, as well as provide ideas to solve problems making the presentation of possible solutions at different stages of the cycle project life

## **Teaching methodology:**

Interactive lectures with students on the topics taught, orientation in the elaboration of the material taking study cases which will be discussed in groups, learning based on a problem presented, presentation in groups by students and role play, practical lessons for subject and commitment for the student to present the knowledge gained during the lecture. Lectures are organized according to the principle of presentation of theoretical concepts with a power point of 50-60%, discussions and presentations of students and case studies 40-50%. Students will be given selected articles or papers to read and discuss in lectures and exercises. During the exercises - case presentation, explanation of theoretical concepts, discussions, presentation of student works. Students are required individually or in groups of 2-3 to prepare a presentation of key aspects of a real investment study by applying indicators and valuation methods.

Upon successful completion of the module, the student should benefit from: 1)identify problems and identify the purpose and objectives of an investment project, know project definition, project management and project manager, project constraints or frameworks, evaluate project cycle phases starting from initiation, design and planning, implementation, monitoring, controlling the progress and closing of the project or its documentation, analyze, evaluate and critique an existing engineering investment project, 2) students are able to apply the methods of international financial institutions and PMC during the process of preparation, evaluation and implementation of investment projects, agility for analysis, critical evaluation and problem solving related to the preparation and implementation of investment studies, 3) demonstrate skills, individual and group communication and argumentation regarding investment decisions, 4) competent to design an investment project, to be the project leader, to identify the investment areas of the organization.

# Literature:

- 1. Muhamet Mustafa: Menaxhimi i Investimeve
- 2. S. Panariti, Menaxhimi i projekteve, Tiranë 2017, Handbook on Economic Analyses of Investment Operations, World Bank
- 3. UNIDO: Manual for Preparation and Appraisal of Industrial Projects;
- 4. Daynanada & Irons&Harrison, Herbohn, Capital Budgeting,
- 5. Financial Appraisal of Investment Projects, Cambridge
- 6. Ralph Tiffin: Practical Techniques for Effective Project Investment Appraisal (IFC)

Course title: German Language I

**Course description:** 

Themen neu I dhe Themen neu II

Lecture 1-15. Oral and written practice, conversation, grammar (preposition, the past tense of verbs, adjectives - comparison of adjectives, the perfect tense of regular verbs, active and passive voice; subordinated clauses).

Goals and expected results:

The objective of this course is students to have knowledge of literature and grammar of German.. After completion of the course the student will be able to: 1) have a solid knowledge of German, 2) write and read in German, 3) communicate to a certain level, 4) acknowledge the fundamental elements of communication, 5) recognize the advanced technologies applied in transportation, 6) the benefits derived from proper application of contemporary transportation technologies.

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

Literature:

1. G.Stern: "Essential German Grammar", New York 2015

2. P.Coggle: "Willkommen!: Student's Book: A Course in German for Adult Beginners",

Berlin 2015

3. Dialog Beruf Starter, Krs und Arbeitsbuch, CD, Fachliteratur fuer

Verkehrwissenschaft,2015

**Course title: Road Infrastructure** 

**Course description:** 

Modern road vehicles. Classification of road vehicles. Systems based on road vehicles. Definitions of engines. Short History of the engines. Separation of engines. Auxiliary systems. Main parts of engines. Cycle of engines. Characteristics of the axis of engines (ecological, energy, exploitation).

Types of characteristics. Characteristics of gear. Load characteristics. Universal characteristics. The fuel system of Otto-engines. Systems of gasoline engines. Systems based on the engine. Power transmission systems. Management system. Elements of the system. Separation systems. Braking system. Significance and tasks of the system. Basic characteristics of the braking system. Other equipment in the vehicle

## Goals and expected results:

The main objective of this course is to increase student's performance on motor vehicles in traffic. After completion of the course the student will be able to: 1) examine the technical situation regarding road vehicle, 2) identify the technical aspects of road vehicles, 3) examine the technical condition of vehicles 4) develop strategy work in all systems and mechanisms of vehicles, 5) present the main systems of road vehicles, 6) recognize the role and functioning of all road vehicle equipment.

## **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. Prof.dr.Heset Cakolli, Automjetet Motorike, Prishtine, 2010.
- 2. P. Hamilton: "Vehicle Maintenance and Repair", Geneva 2014.
- 3. V. Papic: "Odrazavanje motornih vozila" Saobracajni Fakultet, Beograd 2013.

#### THIRD YEAR

#### Fifth semester

Course title: Adjustment of circulation in traffic

# **Course description:**

Basic traffic movement characteristics and diagram. Recording/counting traffic movement.

Illuminated signalling. Regulation of traffic with the help of illuminated signals. Automatic regulating system operation concept. Saturated movements and the capacity of individual signalled crossroads.

Regulating passers-by movement. The elements of the signalling plan. Calculation of signalling plan.

## Goals and expected results:

Upon completion of this course, students will be able to:

- 1. recognize the basic characteristics of traffic movement,
- 2. know the systems of automatic traffic movement regulation,
- 3. draft plans and projects related to traffic movement,
- 4. know and apply all forms of movement in traffic, calculate the signaling plan.

## **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part

#### Literature:

- 1. Xh. Perjuci, A. Alimehaj, G. Hoxha: "Rregullimi i qarkullimit në komunikacion", Prishtinë 2012,
- Xh. Perjuci, "Permbledhje detyrash nga rregullimi i qarkullimit në komunikacion", Prishtinë 2011
- 3. C.F.Daganzo: "Fundamentals of Transportation and Traffic Operations", Pergamon 2015
- 4. Dr. Vesna Cerovic "Tehnika i sigurnost prometa", Zagreb 2014

# **Course title: Transport and Logistics**

#### **Course description:**

Global factors. Theories and models. Information management features. External information. Global markets. International agreements and conventions. Organizational indicators. Strategic investment. Cost comparison and selection. Pricing policies and risk in business. Resource planning for shareholders' objectives. The contribution of organizations to a sustainable environment. Strategic relations. Competitive structures. Collaborative structures. Competition models. Risk analysis. Performance failure, etc.

# Goals and expected results:

Upon completion of the course the student will be able to: 1) Assess the global factors that affect an organization. 2) Evaluate alternative models for analyzing the global business environment. 3) Invent strategies to match the external information needs of an organization. 4) Critically evaluate the advantages and disadvantages of engaging with a global shareholder

## **Teaching methodology:**

Lectures, Exercise, Seminary work, Work on the ground Exam prearation

#### Literature:

- 1. Doci: "Logjistika deh transporti", Prishtinë, 2010
- 2. The Chartered Institute of Logistic and Transport- THE KNOWLEDGE CENTER, LONDON, UK, 2010.

#### Course title: MULTIMODAL PLANNING CONCEPTS AND PROCESS

## **Course description:**

This course focuses on multimodal transportation planning, including planning for roadways, public transportation, bicycling, pedestrians, and the movement of freight. It addresses contemporary transportation planning from a multidisciplinary perspective, reviews the roles of various agencies and organizations in transportation planning, and emphasizes the relationship of transportation to land use and urban form.

Criticisms of the conventional transportation planning process. Key concepts and characteristics of contemporary transportation planning. Regional and intergovernmental coordination.

# Goals and expected results:

A goal of the course is to familiarize urban planning, engineering, and architecture/community design students with the diversity of contemporary transportation issues and best practices pertinent to these disciplines.

Students will be able to understand the transportation planning process, how it has changed over time, and critiques of the conventional "autocentric" approach to transportation planning. At the end of this lesson, students will be able to:

- Identify common steps of the planning process.
- Describe and critique the conventional planning process as it relates to contemporary multimodal planning.
- Understand the importance of aligning state, regional, local, and modal plans.

## **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

 Tumlin, J. (2012). Sustainable transportation planning: Tools for creating vibrant, healthy, and resilient communities. Hoboken, NJ: John Wiley & Sons, Inc. Litman, T. (2014). Introduction to multi-modal transportation planning: Principles and practices. Retrieved from http://www.vtpi.org/multimodal\_planning.pdf.

## Course title: Governance and involvement of transportation

#### **Course description:**

Roles of the state and local government

- Metropolitan Planning Organizations
- o History
- o Function
- Institutional challenges
- Transportation stakeholders and public involvement.

# Goals and expected results:

This course provides students with a comprehensive look at institutional structures for transportation governance, roles of contemporary governance challenges in multimodal planning.

After completing this lesson, students will be able to:

- Identify the roles of entities involved in transportation planning.
- Understand the laws and planning processes.
- Understand the political and institutional issues that impede coordinated planning.
- Understand how social equity is addressed through multimodal transportation planning.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. Rall, J., Wheet, A., Farber, N. J., & Reed, J. B. (2011). Transportation governance and finance: A 50-state review of state legislatures and departments of transportation. National Conference of State Legislatures. AASHTO Center for Excellence in Project Finance.
- **2.** Federal Highway Administration. (2011). Environmental justice emerging trends and best practices guidebook.

Course title: Transportation, land use and destination

## **Course description:**

Challenges of land use and transport integration

- o Sociodemographics
- o Built environment
- o Attitudes
- o Social norms
- o Perceptions of safety
- Travel decisions
- o Activity generation and allocation
- o Scheduling and participation
- o Actual mode choice or constrained preference
- Behavior change strategies o Time-cost (incl. toll facilities, etc.)
- o Land use design

o Availability of choice and intermodal connectivity

o Voluntary programs (e.g., social marketing strategies such as incentives, prompts, social norming,

social diffusion, communication).

Goals and expected results:

This course synthesizes research findings to understand if travel behavior is influenced by physical characteristics of the environment, attitudes and lifestyles, or both. At the end of this lesson students

will be able to:

• Understand trends in travel. • Identify factors that influence travel behavior. • Recommend strategies

to achieve the desired changes in travel behavior.

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is

provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the

relevant subject content, based on the competencies to be acquired. In order to carry out learning

methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice, research promotion and a better connection between theory and

practical part.

Literature:

1. Shoup, D. C. (1999). The trouble with minimum parking requirements. Transportation

Research Part A: Policy and Practice, 33(7), 549-574. Retrieved from.

2. Transportation Research Board. (2009). Special report 298: Driving and the built

environment: The effects of compact development on motorized travel, energy use, and CO2

emissions.

3. Seggerman, K. & Williams, K. (2014). Managing the impacts of bypasses on small and

medium-sized communities.

4. Transportation Research Record: Journal of the Transportation Research Board, 2453, 46-53.

Retrieved from http://trrjournalonline.trb.org/doi/pdf/10.3141/2453-06.

**Course title: Parking Management** 

**Course description:** 

Parking features. Elements of infrastructure space. Characteristics of parking operation. Budget

Elements. Parking Requirements. Requirements for parking under the vehicle structure. Requirements

for parking along the roads. Requests for parking in the cities. Control and parking management in the cities.

# Goals and expected results:

Learn to determine distribution, 2) the spatial capacity structure for parking, 3) recognize elements in terminal buildings in accordance with the technological process that takes place at the terminal, 4) identify the need to rationalize the structure of the transportation system, 5) analyze and determine the purpose and structure necessary for parking; 6) Determine concrete measures to solve parking problems; 7) Know the characteristics of parking operation; 8) Know the factors that affect parking areas.

This course familiarizes students with the importance of parking lots.

At the end of this lesson students will be able to:

- Understand how planning parking
- Understand how to leverage investments.
- Describe funding for parking.
- Identify requests for parking in the cities.

# **Teaching methodology:**

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is provided the possibility for knowledge transfer, improvement of students' abilities and skills. Learning method focuses on competencies and learning outcome. These activities are related to the relevant subject content, based on the competencies to be acquired. In order to carry out learning methods and achieving objectives, it is allowed a greater inclusion of practical training through projects and professional practice, research promotion and a better connection between theory and practical part.

#### Literature:

- 1. Putnik N.:Autobaze i autostanice, osnovni udžbenik, Saobraćajni fakultet, Bg.2014.
- 2. N.Lajçi: "Autobazat dhe autostacionet", Prishtinë 2011.
- 3. Dr. sc. Ymer Shurdha, "Autobazat dhe autostacionet", Prishtinë 2009.

**Course title: Transport Economics** 

**Course description:** 

Traffic and road transport. Road Traffic Organization. Car park. Travel. Amortization, rentability,

economicity. Exploitation costs of road transport. Transport organization of passengers in road traffic.

Organizing road transport in large distance. Labour costs of vehicles. Safety of communications

systems. Economic of Road Traffic

Goals and expected results:

After analysis of the transport market (structure and dynamics) followed by consideration of transport

policy. Getting to know the way of economic decision making in the field of transport. After

completion of the course the student will be able to: 1) compare economic of organizational systems,

2) manage the costs of transport, 3) determine the cost and form of exploitation of transport, 4)

coordinate and resolve problems through numerical methods from economic of traffic. 5) fundamental

factors and traffic processes in the economic functioning of the system; 6) Traffic systems and traffic

policies; 7) economic principles of road transportation.

**Teaching methodology:** 

Teaching method is planned and synchronized between the teacher and assistant. On this basis, it is

provided the possibility for knowledge transfer, improvement of students' abilities and skills.

Learning method focuses on competencies and learning outcome. These activities are related to the

relevant subject content, based on the competencies to be acquired. In order to carry out learning

methods and achieving objectives, it is allowed a greater inclusion of practical training through

projects and professional practice, research promotion and a better connection between theory and

practical part

Literature:

4. R.Likaj, Ekonomika e komunikacionit, Prishtinë 2015.

5. Q. Buqinca, "Organization and traffic economic", Prishtinë 2014.

6. K. Button, "Transport Economics", 3rd Edition, Gloucestershire 2014.

Course title: German Language II

**Course description:** 

Themen neu I and Themen neu II. Lecture 1-15. Oral and written exercises, conversation, Grammar

(Prepositions, past tense of verbs, adjectives - inflection and scaling of adjectives, imperfect tense of

regular verbs, active and passive tenses; dependent sentences).

## Goals and expected results:

The objective of this course is to acquaint students with the literature and grammar of the German language. Upon completion of the course the student will be able to: 1) have a solid knowledge of German, 2) read and write in German, 3) communicate to a certain degree, 4) know the basic elements of traffic, 5) know some terms of traffic, 6) write correctly some notions related to traffic, 7) understand the types of transport in German.

## **Teaching methodology:**

The form of teaching is planned and synchronized between the teacher and the assistant. On this basis, the opportunity is created to transfer knowledge, increase students' skills and abilities. The form of learning focuses on competencies and learning outcomes. These activities are related to the content of the respective subject based on the competencies to be acquired. In order to achieve forms and objectives in learning enables greater inclusion of practical training through projects and professional practice, promoting research and better linking between theory and practice.

#### Literature:

- 4. G.Stern: "Essential German Grammar", New York 2015
- 5. P.Coggle: "Willkommen!: Student's Book: A Course in German for Adult Beginners", Berlin 2015
- **6.** Dialog Beruf Starter, Krs und Arbeitsbuch, CD, Fachliteratur fuer Verkehrwissenschaft.

# THIRD YEAR

#### Six semester

#### **Independent project – thesis**

In the last semester the student is obliged to prepare and publicly defend an independent project, which is evaluated with 30 ECTS credit points. The student should be determined in what field he / she will develop this project and then this project should come as a result of his / her research during the internship in the partner institutions / companies of the Tempulli Academy. Upon successful completion of this project, the student is obliged to write his research work in the form of a dissertation and defend it publicly, which is considered that the student completes the registered studies in full.