## Course title :

| Course Basic Information       |   |                     |                |  |  |  |
|--------------------------------|---|---------------------|----------------|--|--|--|
| Academic Unit:                 | Faculty of Civil Engineering                                |                     |                |  |  |  |
| Course title:                  | The use of geoinformation                                   |                     |                |  |  |  |
| Level:                         | Bachelor  |                     |                |  |  |  |
| Course Status:                 | Elective  |                     |                |  |  |  |
| Year of Study:                 | Year 2. Semester 3  |                     |                |  |  |  |
| Number of Classes per Week     | 2+1   |                     |                |  |  |  |
| FCTS Credits:                  | 3   |                     |                |  |  |  |
| Time /location:                | According to the Timetable                                  |                     |                |  |  |  |
|                                | Prof Acc Dr. Vmor Kuka                                      |                     |                |  |  |  |
| Teacher:                       |   |                     |                |  |  |  |
| Contact Details:               | ymer.kuka@uni-pr.edu  |                     |                |  |  |  |
|                                | +383 44 224 853   |                     |                |  |  |  |
|                                |   | L                   |                |  |  |  |
| Course Description:            | The subject begins with basic knowledge spatial             |                     |                |  |  |  |
|                                | information, possible formats of saving and                 |                     |                |  |  |  |
|                                | presentation, domains that find application such            |                     |                |  |  |  |
|                                | information, conversion methods between different           |                     |                |  |  |  |
|                                | formats, then continues with the data representation in     |                     |                |  |  |  |
|                                | different cartographic projections, and concludes with      |                     |                |  |  |  |
|                                | the spatial data analysis and the potential applications in |                     |                |  |  |  |
|                                | proper examples.  |                     |                |  |  |  |
| Course Goals:                  | The main purpose of the subject is to develop the basic     |                     |                |  |  |  |
|                                | knowledge of spatial information, their presentation and    |                     |                |  |  |  |
|                                | use in specific fields.                                     |                     |                |  |  |  |
| Expected Learning Outcomes:    | Upon completion of this course the student will be able     |                     |                |  |  |  |
|                                | to:   |                     |                |  |  |  |
|                                | - Get basic knowledge of spatial information.               |                     |                |  |  |  |
|                                | formats of spatial data                                     |                     |                |  |  |  |
|                                | Inderstand what are the possible areas of the use of        |                     |                |  |  |  |
|                                | snatial data in solving practical tasks                     |                     |                |  |  |  |
|                                |   |                     |                |  |  |  |
| Student Workload (should be in | n compliance w  | vith student's Lear | ning Outcomes) |  |  |  |
| Activity                       | Hours   | Day/ Week           | Total          |  |  |  |
| Lectures                       | 2   | 15                  | 30             |  |  |  |
| Theory/ Lab Work/Exercises     | 1   | 15                  | 15             |  |  |  |
| Practical Work                 |   |                     |                |  |  |  |
| Study for intermediate test    | 2   | 2                   | 4              |  |  |  |
| Consultations with the teacher |   |                     |                |  |  |  |
| Field Work                     |   |                     |                |  |  |  |
| Test, seminar paper            | 1   | 5                   | 5              |  |  |  |
| Homework                       | 1   | 5                   | 5              |  |  |  |
| Self-study (library or home)   | 1   | 5                   | 5              |  |  |  |
| Preparation for final exam     | 3   | 2                   | 6              |  |  |  |

| Assessment time (test, quiz, final |  |   |                     |        |  |  |
|------------------------------------|--|---|---------------------|--------|--|--|
| Projects, presentations, etc.      |  | 1   | 15                  | 15     |  |  |
| Total                              |  |   |                     | 83     |  |  |
|                                    |  |   |                     |        |  |  |
| Teaching Methods:                  |  | -Lecture  |                     |        |  |  |
|                                    |  | -Discussion during lectures   |                     |        |  |  |
|                                    |  | -Exercises  |                     |        |  |  |
|                                    |  | -Team work  |                     |        |  |  |
| Assessment Methods:                |  | In evaluation, the percentage of the attendance of each<br>partial evaluation in the final evaluation must be<br>determined. One of the ways of evaluation would be:<br>First Evaluation: 15%<br>Second Evaluation: 15%<br>Homework or other engagement: 10%<br>Attendance 5%<br>Final Exam 55%<br>Total 100% |                     |        |  |  |
|                                    |  |   |                     |        |  |  |
| Primary Literature:                |  | <ol> <li>GIS – a Computing Perspective, Worboys, M. (2003)</li> <li>Fazal, Sh. (2008): GIS Basics.</li> </ol>   |                     |        |  |  |
| Additional Literature:             |  | 1) Markus, B. (2011): Geoinformation management 2.  |                     |        |  |  |
| Designed teaching plan             |  | -   |                     |        |  |  |
| Week                               | Title of t   | he Lecture  |                     |        |  |  |
| Week 1:                            | Use of ge  | eoinformation to get acquainted with the transformation   |                     |        |  |  |
| 14/2 - 1- 2-                       | options i  | is in different formats   |                     |        |  |  |
| Week 2:                            | Users' decision on how to use the notes                        |   |                     |        |  |  |
| Week 3:                            | Examples of the use of geoinformation                          |   |                     |        |  |  |
| Week 4:                            | Convert vector to raster                                       |   |                     |        |  |  |
| Week 5:                            | Generalization of the line                                     |   |                     |        |  |  |
| Week 6:                            | Merging Attributes   |   |                     |        |  |  |
| Week 7:                            | Changing the projection and managing the transactions          |   |                     |        |  |  |
| Week 8:                            | Identifica   | lication of different note forms, note pattern  |                     |        |  |  |
|                                    | First valu   | uation  |                     |        |  |  |
| Week 9:                            | Identification of different forms of notes,                    |   |                     |        |  |  |
| Week 10:                           | Projection and various spatial data                            |   |                     |        |  |  |
| Week 11:                           | Summary of changes and their function in analysis and modeling |   |                     |        |  |  |
| Week 12:                           | The possibility of switching from one format to another        |   |                     |        |  |  |
| Week 13:                           | Loss of ir   | of information should be as small as possible during the  |                     |        |  |  |
|                                    | transform  | mation  |                     |        |  |  |
| Week 14:                           | Quality of analysis during transformation                      |   |                     |        |  |  |
| Week 15:                           | Analysis<br>Second v   | and the easiest valuation   | way to use geoinfor | mation |  |  |

Academic Policies and Code of Conduct

- Regular attendance of lectures and exercises
- Being quiet during the sessions
- Shutting down mobile phonesBeing on time

Note | If a student has more than 3 class assignements evaluated below 50% he/she loses the right on taking the final exam. Evaluation is done from 0-100 %.