*Recommended template: “Course Description, Syllabus, Course Requirements”*

# course syllabus and course requirements academic year 2022 semester 2

|  |  |
| --- | --- |
| ***Course title*** | ***Programming 1*** |
| ***Course Code*** | ***IVB332ANVM*** |
| ***Hours/Week: le/pr/lab***  | ***1/0/2*** |
| ***Credits*** | ***4*** |
| ***Degree Programme*** | ***Electrical Engineering*** |
| ***Study Mode***  | ***Full time*** |
| ***Requirements*** | ***-*** |
| ***Teaching Period*** | ***Autumn*** |
| ***Prerequisites*** | ***-*** |
| ***Department(s)******Course Director*** | ***Dr. Levente Szabó***  |
| ***Teaching Staff*** | ***Zoltan Zidarics*** |
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# course description

Programming in C language in basic level. Upon completion of this course the student should be able to: interpret, and put into practice

 a. using C language in different operating systems,

 b. using Code::Blocks as an integrated development environment,

 c. strong knowledge of procedural programming paradigm

 d. basic activities:

 a. creating a project

 b. creating a test environment

 c. documenting codes

 d. using variables,types and other C specific objects

 e. using system functions (LIBC)

 f. version controlling (Git, Gitlab)

# syllabus

*Neptun: Instruction/Subjects/Subject Details/Syllabus*

## **goals and objectives**

*This lecture and practical based course aims to give computer science engineering students a solid C basis through covering the following topics:*

 *• Creating and managing C projects*

 *• Sharing codes in a version controlling system*

 *• Working in a developer workgroup, managing software lifecycle*

*Students learn the basics of programming enabling them to interpret and understand engineering sciences and through solving elementary tasks they deepen their basic theoretical knowledge in the field of engineering. The practical sessions are designed to complement the requirements of different specialisations.*

*Neptun: Instruction/Subjects/Subject Details/Syllabus/Goal of Instruction*

…

## **course content**

*Neptun: Instruction/Subjects/Subject Details/Syllabus/Subject content*

|  |  |
| --- | --- |
|  | **TOPICS** |
| **LECTURE** | 1. *Preface, history*
2. *Structure of the language*
3. *Data types*
4. *etc.*
 |
| **PRACTICE** | 1. *topic*
2. *topic*
3. *topic*
4. *etc.*
 |
| **laboratory practice** | 1. *topic*
2. *topic*
3. *topic*
4. *etc.*
 |

### **DETAILED SYLLABUS AND COURSE SCHEDULE**

### *academic holidays included*

|  |
| --- |
| ***LECTURE***  |
| *week* | **Topic** | **Compulsory reading; page number****(from … to …)** | **Required tasks (assignments, tests, etc.)** | **Completion date, due date** |
| *1.* | Preface, history | [1.]; from 9 to 9, [1.]: from 62 to 89 | … | … |
| *2.* | Structure of the language | [1.]; from 9 to 11 |  |  |
| *3.* | Data types | [1.]; from 11 to 16 |  |  |
| *4.* | Operations | [1.]; from 40 to 49 |  |  |
| *5.* | Controlling | [1.]; from 52 to 60 |  |  |
| *6.* | Objects | [1.]; from 83 to 83 |  |  |
| *7.* | Pointers | [1.]: from 83 to 108 |  |  |
| *8.* | Structure | [1.]; from 114 to 132 |  |  |
| *9.* | Autumn break |  |  |  |
| *10.* | GNU Libc | [4.]; all |  |  |
| *11.* | Coding style | [2.]; all |  |  |
| *12.* | Version controlling | [3.]; all |  |  |
| *13.* | Gitlab | [5.]; all |  |  |
| *14.* | Final exam |  |  |  |
| *15.* | Consultation |  |  |  |

|  |
| --- |
| ***PRACTICE, LABORATORY PRACTICE*** |
| *week* | **Topic** | **Compulsory reading; page number****(from … to …)** | **Required tasks (assignments, tests, etc.)** | **Completion date, due date** |
| *1.* | Hello world |  |  |  |
| *2.* | Fahrenheit |  |  |  |
| *3.* | Limits of variables |  |  |  |
| *4.* | Calculator |  |  |  |
| *5.* | StrCpy |  |  |  |
| *6.* | Pointer |  |  |  |
| *7.* | File |  |  |  |
| *8.* | Time |  |  |  |
| *9.* | Autumn break |  |  |  |
| *10.* | GetHost |  |  |  |
| *11.* | Lotto |  |  |  |
| *12.* | Final exam |  |  |  |
| *13.* | Consultation |  |  |  |
| *14.* | Consultation |  |  |  |
| *15.* | Checking |  |  |  |

## **assessment and evaluation**

*(Neptun: Instruction/Subjects/Subject Details/Syllabus/Examination and Evaluation System)*

##### **Attendance**

*In accordance with the Code of Studies and Examinations of the University of Pécs, Article 45 (2) and Annex 9. (Article 3) a student may be refused a grade or qualification in the given full-time course if the number of class absences exceeds 30% of the contact hours stipulated in the course description.*

***Method for monitoring attendance*** *(e.g.: attendance sheet / online test/ register, etc.)*

Attending is not required all classes, but it needs all homeworks and project work at least 65% level.

##### **assessment**

*Cells of the appropriate type of requirement is to be filled out (course-units resulting in mid-term grade or examination). Cells of the other type can be deleted.*

Course resulting in mid-term grade (PTE TVSz 40§(3))

**Mid-term assessments, performance evaluation and their ratio in the final grade** (The samples in the table to be deleted.)

|  |  |  |
| --- | --- | --- |
| **Type** | **Assessment** | **Ratio in the final grade** |
| *Tests* |  *50 points* | *50 %* |
| *Homeworks* | *20 points* | *20 %* |
| *Project work* | *30 points* | *30 %* |

**Opportunity and procedure for re-takes** (PTE TVSz 47§(4))

*The specific regulations for improving grades and resitting tests must be read and applied according to the general Code of Studies and Examinations. E.g.: all tests and assessment tasks can be repeated/improved at least once every semester, and the tests and home assignments can be repeated/improved at least once in the first two weeks of the examination period.*

Retaking under semester or the first week of the exam period

**Grade calculation as a percentage**

based on the aggregate performance according to the following table

|  |  |
| --- | --- |
| **Course grade** | **Performance in %**  |
| excellent (5) | 86 % … |
| good (4) | 71 % ... 85 % |
| satisfactory (3) | 55 % ... 70 % |
| pass (2) | 40 % ... 54 % |
| fail (1) | below 40 %  |

The lower limit given at each grade belongs to that grade.

## **Specified literature**

*In order of relevance. (In Neptun ES: Instruction/Subject/Subject details/Syllabus/Literature)*

##### **compulsory reading and availability**

[1.] [Kernighan-Ritchie: The C programming language](https://github.com/auspbro/ebook-c/blob/master/The.C.Programming.Language.2Nd.Ed%20Prentice.Hall.Brian.W.Kernighan.and.Dennis.M.Ritchie..pdf)

[2.] [C Notes for professionals](https://goalkicker.com/CBook/CNotesForProfessionals.pdf)

[3.] [Git documentation](https://git-scm.com/doc)

##### **recommended literature and availability**

[4.] [The GNU C Library](https://www.gnu.org/software/libc/manual/html_mono/libc.html)

[5.] [Gitlab documentation](https://docs.gitlab.com/)