

# Courses and Credits achieved in the Bachelor Studies



## Focal area Visual Computing

|  |                     |
|--|---------------------|
| Surname:   | SHOURAV             |
| First name:  | TANVIR TANJUM       |
| Application Number:  | 206134              |
| Type of Bachelor Study:  | Bachelor of Science |
| Standard period of study of the Bachelor in semesters (half academic years): | 12 (4 years)        |
| Total number of Credit Points of the Bachelor:                               | 148                 |

## Course Survey

Please indicate the courses you have studied in the corresponding fields of study (specify the actual semester, course name and credit points as stated in your transcript)

### Courses related to Visual Computing (18 CP required)

Sample topics: Computer graphics, computer vision, image processing, artificial intelligence, machine learning

| Semester             | Course Name                               | Credits |
|----------------------|---|---------|
| 9(2019-2020, Summer) | ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEM | 3       |
| 10(2020-2021, Fall)  | COMPUTER GRAPHICS                         | 3       |
|                      |   |         |
|                      |   |         |
|                      |   |         |

## Mathematical Foundations (20 CP required)

Sample topics: Discrete mathematics, linear algebra, analysis, calculus

| Semester             | Course Name                                  | Credits |
|----------------------|--|---------|
| 1(2017-2018, Fall)   | DIFF CALCULUS AND COORDINATE GEOMETRY        | 3       |
| 2(2017-2018, Spring) | DISCRETE MATHEMATICS                         | 3       |
| 2(2017-2018, Spring) | INTEGRAL CALCULUS & ORD. DIFF EQUATION       | 3       |
| 3(2017-2018, Summer) | COMPLEX VARIABLE, LAPLACE & Z-TRANSFORMATION | 3       |
| 4(2018-2019, Fall)   | MATRICES, VECTORS, FOURIER ANALYSIS          | 3       |

## Foundations in Computer Science and Programming (10 CP required)

Sample topics: Introduction to computer science, introduction to programming, algorithms & data structures, object-oriented programming, programming lab

| Semester             | Course Name                          | Credits |
|----------------------|--------------------------------------|---------|
| 1(2017-2018, Fall)   | PROGRAMMING LANGUAGE 1               | 3       |
| 2(2017-2018, Spring) | PROGRAMMING LANGUAGE 2               | 3       |
| 4(2018-2019, Fall)   | DATA STRUCTURE                       | 3       |
| 10(2020-2021, Fall)  | ADVANCED PROGRAMMING WITH .NET       | 3       |
| 6(2018-2019, Summer) | OBJECT ORIENTED PROGRAMMING 1 (JAVA) | 3       |
| 7(2019-2020, Fall)   | OBJECT ORIENTED PROGRAMMING 2 (C#)   | 3       |

## Theoretic Computer Science (10 CP required)

Sample topics: Automata and formal languages, computability, logic, algorithms

| Semester             | Course Name           | Credits |
|----------------------|-----------------------|---------|
| 7(2019-2020, Spring) | THEORY OF COMPUTATION | 3       |
| 5(2018-2019, Spring) | ALGORITHMS            | 3       |

## Practical Computer Science (20 CP required)

Sample topics: Operating systems, databases, software engineering, compiler construction

| Semester             | Course Name              | Credits |
|----------------------|--------------------------|---------|
| 3(2017-2018, Summer) | INTRODUCTION TO DATABASE | 3       |
| 7(2019-2020, Fall)   | OPERATING SYSTEM         | 3       |
| 8(2019-2020, Spring) | SOFTWARE ENGINEERING     | 3       |
| 8(2019-2020, Spring) | COMPILER DESIGN          | 3       |
|                      |                          |         |

## Computer Engineering (15 CP required)

Sample topics: Computer networks, computer architecture, sequential circuits

| Semester             | Course Name                            | Credits |
|----------------------|--|---------|
| 4(2018-2019, Spring) | COMPUTER ORGANIZATION AND ARCHITECTURE | 3       |
| 5(2018-2019, Spring) | COMPUTER NETWORKS                      | 3       |
| 6(2018-2019, Summer) | ELECTRONIC DEVICES                     | 3       |

## Project Work or Bachelor Thesis (10 CP required)

| Semester            | Course Name      | Credits |
|---------------------|------------------|---------|
| 10(2020-2021, Fall) | PROJECT & THESIS | 3       |
|                     |                  |         |