

Faculty

Applied Computer Science

## Admission Test BSc. Artificial Intelligence

Send your application via Primuss. If your application meets the formal criteria, you will receive an invitation to the admission test. Please be patient, the test won't start before the mid of May.

### Mode:

- 16 multiple choice questions & an essay
- 4 questions per category
- Time: 90 mins for questions & essay (you have to organize yourself – both parts are important)

### Multiple Choice categories:

- Calculus
  - Derivatives and integrals for one variable
  - Curve sketching
  - Newton method
- Linear Algebra
  - 3D coordinates
  - Vectors, fundamental operations
  - Lines, planes, distances
  - Not: matrices
- Probabilities
  - Random variables, expected value, standard deviation
  - Events including complement, union and intersection
  - Binomial distribution
  - Bernoulli experiments
- Foundations of Computer Science
  - Recursive data structures: lists, trees, graphs
  - Software engineering: project management, modeling, OOP
  - Formal languages: syntax, semantic, languages, grammars, regular languages
  - Multiprocessing: communication and synchronization
  - Computer architecture: CPU, RAM, I/O, busses, register machine, state machines, assembly code
  - Computability: complexity classes, halting problem

### Essay:

- 200 – 300 words
- themes will be either artificial intelligence, logic problem or motivation of studying BSc AIN at DIT

### Further information:

If you are unable to attend the test in Deggendorf, an online test is available at your convenience. However, this test will be proctored by an external service [provider](#).