

**Instructions for applicants to the master degree programs**  
**Faculty of Nuclear Sciences and Physical Engineering,**  
**Czech Technical University in Prague**

**Degrees in:** *Mathematical Engineering, Applied Algebra and Analysis*  
(provided they are open for admission in the current dean's directive)

The program is designed for the students graduated from the preceding bachelor program in the same subject at the FNSPE CTU in Prague or in similar subject elsewhere. In case of necessity the accepted applicants can be provided by the individual study plan allowing them to achieve the knowledge level equivalent to the corresponding bachelor study program.

The applicant is accepted through the admission procedure consisting of the entrance exam in Mathematics of the interview. The exam is in written form and lasts 90 minutes. The contents is given by the curriculum of the FNSPE CTU in Prague and is specified in the following topics:

**Topics in Mathematics**

1. systems of linear algebraic equations
2. eigenvalues and eigen vectors
3. applications of the definite integral
4. power series function expansions
5. extrema and constrained extrema of functions of multiple variables
6. ordinary differential equations
7. partial differential equations
8. basics of functional analysis

The purpose of interview is determination of details of the current professional profile of the applicant (including knowledge of IT and English) and purpose of interest in studying the FNSPE CTU in Prague.

The admission also requires the proof of graduation in the bachelor degree.

Prague, November 30, 2020

prof. Dr. Ing. Michal Beneš  
vice-dean

**Instructions for applicants to the master degree programs**  
**Faculty of Nuclear Sciences and Physical Engineering,**  
**Czech Technical University in Prague**

**Degrees in:** *Applied Mathematical – Stochastic Methods* (provided they are open for admission in the current dean's directive)

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The applicant is accepted through the admission procedure consisting of the entrance exam in Mathematics of the interview. The exam is in written form and lasts 90 minutes. The contents is given by the curriculum of the FNSPE CTU in Prgue and is specified in the following topics:

**Topics in Mathematics**

1. systems of linear algebraic equations
2. eigenvalues and eigen vectors
3. applications of the definite integral
4. power series function expansions
5. extrema and constrained extrema of functions of multiple variables
6. ordinary differential equations
7. probability and mathematical statistics

The purpose of interview is determination of details of the current professional profile of the applicant (including knowledge of IT and English) and purpose of interest in studying the FNSPE CTU in Prague.

The admission also requires the proof of graduation in the bachelor degree.

Prague, November 30, 2020

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**Instructions for applicants to the master degree programs**  
**Faculty of Nuclear Sciences and Physical Engineering,**  
**Czech Technical University in Prague**

**Degrees in:** *Mathematical Informatics* (provided they are open for admission in the current dean's directive)

The program is designed for the students graduated from the preceding bachelor program in the same subject at the FNSPE CTU in Prague or in similar subject elsewhere. In case of necessity the accepted applicants can be provided by the individual study plan allowing them to achieve the knowledge level equivalent to the corresponding bachelor study program.

The applicant is accepted through the admission procedure consisting of the entrance exam in Mathematics of the interview. The exam is in written form and lasts 90 minutes. The contents is given by the curriculum of the FNSPE CTU in Prgue and is specified in the following topics:

**Topics in Mathematics**

1. systems of linear algebraic equations
2. eigenvalues and eigen vectors
3. applications of the definite integral
4. power series function expansions
5. extrema and constrained extrema of functions of multiple variables
6. ordinary differential equations
7. complex variables
8. general algebra

The purpose of interview is determination of details of the current professional profile of the applicant (including knowledge of IT and English) and purpose of interest in studying the FNSPE CTU in Prague.

The admission also requires the proof of graduation in the bachelor degree.

Prague, November 30, 2020

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**Instructions for applicants to the master degree programs**  
**Faculty of Nuclear Sciences and Physical Engineering,**  
**Czech Technical University in Prague**

**Degrees in:** *Mathematical Physics, Nuclear and Particle Physics, Quantum Technology* (provided they are open for admission in the current dean's directive)

The program is designed for the students graduated from the preceding bachelor program in the same subject at the FNSPE CTU in Prague or in similar subject elsewhere. In case of necessity the accepted applicants can be provided by the individual study plan allowing them to achieve the knowledge level equivalent to the corresponding bachelor study program.

The applicant is accepted through the admission procedure consisting of the entrance exam in Physics of the interview. The exam is in written form and lasts 90 minutes. The contents is given by the curriculum of the FNSPE CTU in Prague and is specified in the following topics:

**Topics in Physics**

1. Newtonian mechanics
2. Special relativity theory
3. Electricity and magnetism
4. Vibration, waves and optics
5. Lagrange and Hamilton formulations of mechanics

The purpose of interview is determination of details of the current professional profile of the applicant (including knowledge of IT and English) and purpose of interest in studying the FNSPE CTU in Prague.

The admission also requires the proof of graduation in the bachelor degree.

Prague, November 30, 2020

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**Instructions for applicants to the master degree programs**  
**Faculty of Nuclear Sciences and Physical Engineering,**  
**Czech Technical University in Prague**

**Degrees in:** *Physical Electronics, Nuclear Engineering, Solid State Engineering, Physical Engineering of Materials, Physics of Plasma and Thermonuclear Fusion*, (provided they are open for admission in the current dean's directive)

The program is designed for the students graduated from the preceding bachelor program in the same subject at the FNSPE CTU in Prague or in similar subject elsewhere. In case of necessity the accepted applicants can be provided by the individual study plan allowing them to achieve the knowledge level equivalent to the corresponding bachelor study program.

The applicant is accepted through the admission procedure consisting of the entrance exam in Physics of the interview. The exam is in written form and lasts 90 minutes. The contents is given by the curriculum of the FNSPE CTU in Prgue and is specified in the following topics:

**Topics in Physics**

1. Newtonian mechanics
2. Special relativity theory
3. Electricity and magnetism
4. Vibration, waves and optics
5. Thermodynamics

The purpose of interview is determination of details of the current professional profile of the applicant (including knowledge of IT and English) and purpose of interest in studying the FNSPE CTU in Prague.

The admission also requires the proof of graduation in the bachelor degree.

Prague, November 30, 2020

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vice-dean

**Instructions for applicants to the master degree programs**  
**Faculty of Nuclear Sciences and Physical Engineering,**  
**Czech Technical University in Prague**

**Degrees in:** *Decommissioning of Nuclear Facilities* (provided it is open for admission in the current dean's directive)

The program is designed for the students graduated from the preceding bachelor program in the same subject at the FNSPE CTU in Prague or in similar subject elsewhere. In case of necessity the accepted applicants can be provided by the individual study plan allowing them to achieve the knowledge level equivalent to the corresponding bachelor study program.

The applicant is accepted through the admission procedure consisting of the entrance exam in Physics of the interview. The exam is in written form and lasts 90 minutes. The contents is given by the curriculum of the FNSPE CTU in Prague and is specified in the following topics:

**Topics in Physics**

1. Newtonian mechanics
2. Special relativity theory
3. Electricity and magnetism

The purpose of interview is determination of details of the current professional profile of the applicant (including knowledge of IT and English) and purpose of interest in studying the FNSPE CTU in Prague.

The admission also requires the proof of graduation in the bachelor degree.

Prague, November 30, 2020

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vice-dean

**Instructions for applicants to the master degree program**  
**Applications of Natural Sciences**  
**Faculty of Nuclear Sciences and Physical Engineering,**  
**Czech Technical University in Prague**

**Degree in:** *Nuclear Chemistry* (provided it is open for admission in the current dean's directive)

The program is designed for the students graduated from the preceding bachelor program in the same subject at the FNSPE CTU in Prague or in similar subject elsewhere. In case of necessity the accepted applicants can be provided by the individual study plan allowing them to achieve the knowledge level equivalent to the corresponding bachelor study program.

The applicant is accepted through the admission procedure consisting of the entrance exam in Chemistry of the interview. The exam is in written form and lasts 90 minutes. The contents is given by the curriculum of the FNSPE CTU in Prgue and is specified in the following topics:

**Topics in Chemistry**

1. General chemistry
2. Anorganic chemistry
3. Organic chemistry
4. Analytic chemistry
5. Basics of biochemistry
6. Chemical thermodynamics
7. Kinetic mass theory
8. Electrochemistry and theory of solutions
9. Reaction kinetics
10. Instrumental methods

The purpose of interview is determination of details of the current professional profile of the applicant (including knowledge of IT and English) and purpose of interest in studying the FNSPE CTU in Prague.

The admission also requires the proof of graduation in the bachelor degree.

Prague, November 30, 2020

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