

Bachelor's Degree Programme

Physical Engineering

Specialization Physical Engineering of Materials

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
History of Physics 1	02YDEF1	Jex	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virus, Klinkovský, Petríčková, Jarý	4 z	-	4	-
Preparatory week	00YPT	FJFI	1 week z	-	2	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Electricity and Magnetism	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Introduction to Engineering	17YUING	Frýbort, Haušild, Mušálek	2+1 kz	-	3	-
Language Courses ⁽³⁾	04.	KHVJ	-	-	-	-
Optional courses:						
Minimum in Mathematics 1	00YMAM1	Břeň	0+1 z	-	1	-
Minimum in Mathematics 2	00YMAM2	Pošta	0+1 z	-	1	-
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Fundamentals of Physical Measurements 1, 2	02YZM12	Chaloupka, Škoda, Rojas	2+0 zk	0+4 kz	2	4
Creation of Electronic Documents	14YTED	Materna	0+2 z	-	2	-
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
General Chemistry 1, 2 ⁽⁴⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken provided the assessment in 01YLAL is obtained.

(3) Enrollment in language courses follows the rules given separately.

(4) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Physical Engineering

Specialization Physical Engineering of Materials

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus B 3, 4	01YANB34	Krbálek, Kolář	4+4 z, zk	2+4 z, zk	8	6
Numerical Methods 1	12YNME1	Váchal	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Teoretická fyzika 1 ⁽¹⁾	02YTEF1	Hrivnák, Novotný P.	2+2 z, zk	-	4	-
Engineering Mechanics	14YTEM	Kunz	2+2 z, zk	-	4	-
Dynamics of Linear Systems	14YDYLS	Kunz	-	1+1 z, zk	-	2
Electron Microscopy	14YELM	Karlík	-	2+0 kz	-	2
Language Courses ⁽²⁾	04..	KHVJ	-	-	-	-
Required optional courses ⁽³⁾						
Materials Characterization	14YCHMA	Haušild, Tesař	2+1 kz	-	4	-
Experimental Laboratory 1, 2	02YPRA12	Bielčík, Rojas	0+4 kz	0+4 kz	6	6
Practicum in Materials	14YPMA	Karlík, Tesař	-	0+2 kz	-	3
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Experimental Physics	02YEXF	Křížková-Gajdošová, Trzeciak	2+0 zk	-	2	-
Introduction to Probability 1, 2	01YUP12	Krbálek, Vybíral	1+1 z, zk	1+1 z, zk	3	3
Basic Electronics 1, 2	12YZEL12	Pavel	2+1 z, zk	2+1 z, zk	3	3
Computer Algebra Systems	12YPAS	Šiňor	1+1 z	-	2	-
Introduction to Scientific Computing	12YUVP	Šiňor	-	1+1 z	-	2
Seminar on Solid State Physics	11YSFIPL	Kalvoda	1+1 kz	-	2	-
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Enrollment in language courses follows the rules given separately.

(3) To obtain 6 credits at least is obligatory.

Bachelor's Degree Programme

Physical Engineering

Specialization Physical Engineering of Materials

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Fundamentals of Solid State Physics	11YZFP	Kalvoda, Mihóková	2+0 zk	-	3	-
Bachelor Project 1, 2	14BPFI12	Kalvoda, Kunz	0+5 z	0+10 z	5	10
Bachelor Seminar	11YBSEM	Kalvoda, Havlíková	-	0+2 z	-	1
Quantum Physics	02YKF	Jizba	2+1 z, zk	-	3	-
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Elasticity 1	14YEM1	Materna, Oliva	2+2 z, zk	-	5	-
Numerical Methods 2	01YNME2	Beneš	-	2+0 kz	-	2
Metal Physics	14YFKO	Čech, Karlík	-	4+2 z, zk	-	6
Practicum in Finite Elements Methods	14YPMKOP	Materna	-	0+2 zk	-	3
Testing and Processing of Metals and Alloys	14YZZKOS	Lauschmann, Mušálek	-	2+2 z, zk	-	4
Language Courses ⁽²⁾	04...	KHVJ	-	-	-	-
Optional courses:						
Instrumentation and Measurement	11YELEA	Jiroušek	-	2+0 z, zk	-	2
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1
Structure of Solid State	11YSPLA	Kolenko, Kraus	2+2 z, zk	-	4	-
Applications of Group Theory in Solid State Physics	11YAPLG	Potůček	2+0 zk	-	2	-
Nanotechnology	12YNT	Hulicius, Proška	2+0 zk	-	2	-
Fundamentals of Optics	12YZAOP	Kwiecien	2+0 z, zk	-	2	-

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Physical Engineering

Specialization Plasma Physics and Thermonuclear Fusion

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
Basics of Programming	18YZPRO	Virus, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Preparatory week	00YPT	FJFI	1 week z	-	2	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Electricity and Magnetism	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Introduction to Laser Technology	12YULTB	Jelínková, Němec, Šulc	-	2+1 kz	-	3
Seminar on Plasma Physics	02YSFP	Svoboda	-	0+2 z	-	2
Language Courses ⁽³⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Minimum in Mathematics 1	00YMAM1	Břeň	0+1 z	-	1	-
Minimum in Mathematics 2	00YMAM2	Pošta	0+1 z	-	1	-
History of Physics 1	02YDEF1	Jex	2+0 z	-	2	-
Discrete Mathematics 1, 2 ⁽⁴⁾	01YDIM12	Masáková	2+0 z	2+0 z	2	2
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Fundamentals of Physical Measurements 1, 2 ⁽⁴⁾	02YZM12	Chaloupka, Škoda, Rojas	2+0 zk	0+4 kz	2	4
Introduction to Solid State Physics	11YUFP	Kolenko	-	2+0 zk	-	3
Physical Seminar 1	02YFYS1	Petrásek	0+2 z	-	2	-
Fundamentals of Algorithmization	18YZALG	Virus, Jarý	-	2+2 z, zk	-	4
General Chemistry 1, 2 ⁽⁵⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
Introduction to Photonics and Nanostructures	12YUFN	Kwiecien, Richter, Proška	-	2+1 kz	-	3

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken provided the assessment in 01YLAL is obtained.

(3) Enrollment in language courses follows the rules given separately.

(4) The indicated courses can be scheduled simultaneously.

(5) Enrollment of 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Physical Engineering

Specialization Plasma Physics and Thermonuclear Fusion

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus B 3, 4	01YANB34	Krbálek, Kolář	4+4 z, zk	2+4 z, zk	8	6
Numerical Methods 1	12YNME1	Váchal	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Theoretical Physics 1 ⁽¹⁾	02YTEF1	Hrivnák, Novotný P.	2+2 z, zk	-	4	-
Experimental Laboratory 1, 2	02YPRA12	Bielčík, Rojas	0+4 kz	0+4 kz	6	6
Experimental Physics	02YEXF	Křížková-Gajdošová, Trzeciak	2+0 zk	-	2	-
Laboratory of Plasma Diagnostics	02YUPP	Brotánková, Svoboda	-	0+2 kz	-	3
Language Courses ⁽²⁾	04..	KHVJ	-	-	-	-
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Theoretical Physics 2 ⁽³⁾	02YTEF2	Hrivnák, Novotný P.	-	2+2 z, zk	-	4
Introduction to Probability 1, 2	01YUP12	Krbálek, Vybíral	1+1 z, zk	1+1 z, zk	3	3
Introduction to Elementary Particle Physics	02YUFEC	Matas	2+0 z	-	2	-
Special Theory of Relativity	02YSTR	Břeň	-	2+0 zk	-	2
Basic Electronics 1, 2 ⁽⁴⁾	12YZEL12	Pavel	2+1 z, zk	2+1 z, zk	3	3
Selected Topics in Modern Physics ⁽⁴⁾	12YVPMF	Pšikal	-	2+1 z	-	3
Programming in C++ 1, 2	18YPRC12	Virus, Jarý	2+2 z	2+2 kz	4	4
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Enrollment in language courses follows the rules given separately.

(3) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed.

(4) The indicated courses can be scheduled simultaneously.

Bachelor's Degree Programme

Physical Engineering

Specialization Plasma Physics and Thermonuclear Fusion

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Fundamentals of Solid State Physics	11YZFP	Kalvoda, Mihóková	2+0 zk	-	3	-
Bachelor Project 1, 2	02BPTF12	Svoboda	0+5 z	0+10 z	5	10
Bachelor Seminar	11YBSEM	Kalvoda, Havlíková	-	0+2 z	-	1
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Quantum Physics	02YKF	Jizba, Petrásek	2+1 z, zk	-	3	-
Vacuum Technology	12YVKT	Petráček, Švejkar	2+2 kz	-	4	-
Fundamentals of Electrodynamics	12YZELD	Šiňor	1+1 z, zk	-	2	-
Fundamentals of Nuclear Physics	02YZJFY	Wagner	3+2 z, zk	-	5	-
Introduction to Computational Physics 1	12YUPF1	Kuchařík, Liska	1+1 z, zk	-	2	-
Introduction to Nuclear Fusion	02YUFU	Brotánková, Ficker	-	2+2 z, zk	-	4
Principles of Plasma Physics	12YZFP	Limpouch, Jirka	-	3+1 z, zk	-	4
Power Engineering	17YENER	Novák, Tichý	-	2+0 zk	-	2
Language Courses ⁽²⁾	04...	KHVJ	-	-	-	-
Optional courses:						
Transport Phenomena/Nonequilibrium Systems	02YTJNS	Jex	-	2+0 kz	-	2
Atomic and Molecular Spectroscopy	02YAMS	Civiš	2+2 z, zk	-	4	-
Basic Optical Laboratory	12YZPOP	Jančárek	-	0+4 kz	-	6
Basic Laser Technology Laboratory ⁽³⁾	12YZPLT	Blažej	-	0+4 kz	-	6
Measurement and Data Processing	12YZMDT	Blažej, Procházka	1+1 z, zk	-	2	-
Engineering Mechanics	14YTEM	Kunz	2+2 z, zk	-	4	-
Fundamentals of Electronics	17YZEL	Kropík	2+2 kz	-	3	-
Molecular Physics	12YMOF	Michl, Proška	-	2+0 zk	-	2
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.

(3) Enrollment in 12YZPLT is possible only after passing 12YULTB.

Bachelor's Degree Programme

Physical Engineering

Specialization Solid State Engineering

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
History of Physics 1	02YDEF1	Jex	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virius, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Preparatory week	00YPT	FJFI	1 week z	-	2	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Electricity and Magnetism	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Introduction to Solid State Physics	11YUFP	Kolenko	-	2+0 zk	-	3
Language Courses ⁽³⁾	04.	KHVJ	-	-	-	-
Optional courses:						
Minimum in Mathematics 1	00YMAM1	Břeň	0+1 z	-	1	-
Minimum in Mathematics 2	00YMAM2	Pošta	0+1 z	-	1	-
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Fundamentals of Physical Measurements 1, 2	02YZM12	Chaloupka, Škoda, Rojas	2+0 zk	0+4 kz	2	4
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
General Chemistry 1, 2 ⁽⁴⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
Introduction to Photonics and Nanostructures	12YUFN	Kwiecien, Richter, Proška	-	2+1 kz	-	3
Fundamentals of GNU Plot	11YGPL	Dráb	0+2 z	-	2	-
Basics of Algorithmization	18YZALG	Virius, Jarý	-	2+2 z, zk	-	4
Programming in Python 1	18YPPY1	Klinkovský, Mojzeš	-	2 z	-	2

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken provided the assessment in 01YLAL is obtained.

(3) Enrollment in language courses follows the rules given separately.

(4) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Physical Engineering

Specialization Solid State Engineering

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus B 3, 4	01YANB34	Krbálek, Kolář	4+4 z, zk	2+4 z, zk	8	6
Numerical Methods 1	12YNME1	Váchal	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Structure of Solid State	11YSPLA	Kolenko, Kraus	2+2 z, zk	-	4	-
Seminar on Solid State Physics	11YSFIPL	Kalvoda	1+1 kz	-	2	-
Theoretical Physics 1 ⁽¹⁾ , 2 ⁽²⁾	02YTEF12	Hrivnák, Novotný P.	2+2 z, zk	2+2 z, zk	4	4
GNU Programming Language Courses ⁽³⁾	11YGNU 04..	Dráb KHVJ	- -	2+2 kz -	- -	4 -
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Experimental Physics	02YEXF	Křížková-Gajdošová, Trzeciak	2+0 zk	-	2	-
Introduction to Probability 1, 2	01YUP12	Krbálek, Vybíral	1+1 z, zk	1+1 z, zk	3	3
Experimental Laboratory 1, 2	02YPRA12	Bielčík, Rojas	0+4 kz	0+4 kz	6	6
Basic Electronics 1	12YZEL1	Pavel	2+1 z, zk	-	3	-
Seminar on Computer Simulations	11YSPS	Drahokoupil	-	0+2 z	-	2
Computer Algebra Systems	12YPAS	Šiňor	1+1 z	-	2	-
Introduction to Scientific Computing	12YUVP	Šiňor	-	1+1 z	-	2
Electron Microscopy	14YELM	Karlík	-	2+0 kz	-	2
Programování v Pythonu 2, 3	18YPPY23	Klinkovský, Pecinovský	2 z	2 z	2	2
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed.

(3) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Physical Engineering

Specialization Solid State Engineering

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Fundamentals of Solid State Physics	11YZFP	Kalvoda, Mihóková	2+0 zk	-	3	-
Bachelor Project 1, 2	11BPF112	Kalvoda	0+5 z	0+10 z	5	10
Bachelor Seminar	11YBSEM	Kalvoda, Havlíková	-	0+2 z	-	1
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Quantum Mechanics 1, 2	02YKM12	Štefaňák	4+2 z, zk	4+2 z, zk	6	6
Diffraction Analysis of Solid State	11YDAPL	Čapek, Ganev	2+0 zk	-	2	-
Practical Training in Solid State Physics	11YCZF	Kučeráková	0+2 z	-	2	-
Applications of Group Theory in Solid State Physics	11YAPLG	Potůček	2+0 zk	-	2	-
Continuum in Solid State Physics	11YKFPL	Seiner	-	2+0 zk	-	2
Solid State Physics – Applications and Analytical Methods	11YMAPL	Kratochvílová	-	2+2 z, zk	-	4
Introduction to Condensed Matter Simulations	11YZSKL	Drahokoupil, Kalvoda	-	1+1 kz	-	2
Language Courses ⁽²⁾	04...	KHVJ	-	-	-	-
Optional courses:						
Linear Circuit Analysis	11YANEL	Jiroušek, Levinský	4+0 z, zk	-	4	-
Logical Circuits and Microprocessors	11YMIK	Jiroušek, Levinský	-	4+0 z, zk	-	4
Structure and Function of Bio-Molecules	11YSFBM	Koval	2+1 z, zk	-	3	-
Atomic and Molecular Spectroscopy	02YAMS	Civiš	2+2 z, zk	-	4	-
Transport Phenomena/Nonequilibrium Systems	02YTJNS	Jex	-	2+0 kz	-	2
Molecular Physics	12YMOF	Michl, Proška	-	2+0 zk	-	2
Basic Optical Laboratory	12YZPOP	Jančárek	-	0+4 kz	-	6
Fundamentals of Optics	12YZAOP	Kwiecien	2+0 z, zk	-	2	-
Fundamentals of Photonic Structures	12YZFS	Čtyrský, Richter	-	2+0 z, zk	-	2
Nanotechnology	12YNT	Hulicius, Proška	2+0 zk	-	2	-
Vacuum Technology	12YVKT	Petráček, Švejkar	2+2 kz	-	4	-
Principles of Plasma Physics	12YZFP	Limpouch	-	3+1 z, zk	-	4
Functions of Complex Variable	01YFKO	Šťovíček	-	2+1 z, zk	-	3
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Physical Engineering

Specialization Laser Technology and Photonics

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
History of Physics 1	02YDEF1	Jex	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virus, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Preparatory week	00YPT	FJFI	1 week z	-	2	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Electricity and Magnetism	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Language Courses ⁽³⁾	04..	KHVJ	-	-	-	-
Required optional courses ⁽⁴⁾						
Introduction to Laser Technology	12YULTB	Jelínková, Němec, Šulc	-	2+1 kz	-	3
Introduction to Photonics and Nanostructures	12YUFN	Kwiecien, Richter, Proška	-	2+1 kz	-	3
Optional courses:						
Minimum in Mathematics 1	00YMAM1	Břeň	0+1 z	-	1	-
Minimum in Mathematics 2	00YMAM2	Pošta	0+1 z	-	1	-
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Physical Seminar 1	02YFYS1	Petrásek	0+2 z	-	2	-
Fundamentals of Physical Measurements 1, 2	02YZM12	Chaloupka, Škoda, Rojas	2+0 zk	0+4 kz	2	4
Creation of Electronic Documents	14YTED	Materna	0+2 z	-	2	-
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
General Chemistry 1, 2 ⁽⁵⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
Introduction to Solid State Physics	11YUFP	Kolenko	-	2+0 zk	-	3
Fundamentals of Algorithmization	18YZALG	Virus, Jarý	-	2+2 z, zk	-	4

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken provided the assessment in 01YLAL is obtained.

(3) Enrollment in language courses follows the rules given separately.

(4) At least one course is compulsory.

(5) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Physical Engineering

Specialization Laser Technology and Photonics

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus B 3, 4	01YANB34	Krbálek, Kolář	4+4 z, zk	2+4 z, zk	8	6
Numerical Methods 1	12YNME1	Váchal	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Theoretical Physics 1 ⁽¹⁾ , 2 ⁽²⁾	02YTEF12	Hrivnák, Novotný P.	2+2 z, zk	2+2 z, zk	4	4
Experimental Laboratory 1, 2	02YPRA12	Bielčík, Rojas	0+4 kz	0+4 kz	6	6
Measurement and Data Processing	12YZMDT	Blažej, Procházka	1+1 z, zk	-	2	-
Laser Technology 1	12YLTB1	Jelínková, Němec, Šulc	-	2+1 z, zk	-	3
Language Courses ⁽³⁾	04..	KHVJ	-	-	-	-
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Introduction to Scientific Computing	12YUVP	Šiňor	-	1+1 z	-	2
Introduction to Probability 1, 2	01YUP12	Krbálek, Vybíral	1+1 z, zk	1+1 z, zk	3	3
Computer Algebra Systems	12YPAS	Šiňor	1+1 z	-	2	-
Basic Electronics 1, 2	12YZEL12	Pavel	2+1 z, zk	2+1 z, zk	3	3
Microprocessors 1, 2	12YMPP12	Čech	4+0 zk	2+0 zk	4	2
Microprocessor Practicum 1, 2	12YMPP12	Vyhlídal	0+3 kz	0+3 kz	4	2
Electron Microscopy	14YELM	Karlík	-	2+0 kz	-	2
Programming in C++ 1, 2	18YPRC12	Virus, Jarý	2+2 z	2+2 kz	4	4
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1
Selected Parts of Modern Physics	12YVPMF	Pšíkal	-	2+1 z	-	3
Scientific and Technical Calculation	12YVTV	Procházka	-	1+1 z	-	2
Molecular Physics	12YMOF	Michl, Proška	-	2+0 zk	-	2
Display of Physical Data	12YZFD	Blažej	1+1 kz	-	2	-

(1) Examination in 02YTEF1 can be taken only if 02YMECH2 is passed.

(2) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed.

(3) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Physical Engineering

Specialization Laser Technology and Photonics

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Fundamentals of Solid State Physics	11YZFP	Kalvoda, Mihóková	2+0 zk	-	3	-
Bachelor Project 1, 2	12BPFI12	Havlíková	0+5 z	0+10 z	5	10
Bachelor Seminar	11YBSEM	Kalvoda, Havlíková	-	0+2 z	-	1
Quantum Mechanics 1	02YKM1	Štefaňák	4+2 z, zk	-	6	-
Fundamentals of Electrodynamics	12YZELD	Šiňor	1+1 z, zk	-	2	-
Fundamentals of Optics	12YZAOP	Kwiecien	2+0 z, zk	-	2	-
Laser Technology 2	12YLTB2	Kubeček, Šulc, Jelínek	2+1 z, zk	-	3	-
Fundamentals of Photonic Structures	12YZFS	Čtyrský, Richter	-	2+0 z, zk	-	2
Basic Optical Laboratory	12YZPOP	Jančárek	-	0+4 kz	-	6
Basic Laser Technology Laboratory ⁽²⁾	12YZPLT	Blažej	-	0+4 kz	-	6
Language Courses ⁽³⁾	04...	KHVJ	-	-	-	-
Optional courses:						
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Functions of Complex Variable	01YFKO	Šťovíček	-	2+1 z, zk	-	3
Numerical Methods 2	01YNME2	Beneš	-	2+0 kz	-	2
Introductory Practicum in Electronics 1, 2 ⁽⁴⁾	12YEPR12	Procházka	0+2 kz	0+2 kz	3	3
Vacuum Technology	12YVKT	Švejkar, Petráček	2+2 kz	-	4	-
Quantum Mechanics 2	02YKM2	Štefaňák	-	4+2 z, zk	-	6
Nanotechnology	12YNT	Hulicius, Proška	2+0 zk	-	2	-
Operating Systems	12YOSY	Čech	3+0 zk	-	3	-
Regulation and Sensors	12YRSEN	Vyhlídal	4 z, zk	-	4	-
High Frequency and Pulse Technology	12YVFT	Pavel	-	2+0 z, zk	-	2
Laser Systems	12YLAS	Kubeček	-	2+1 z, zk	-	3
Application of Lasers	12YAPL	Jančárek, Jelínková	2+0 z, zk	-	2	-
Principles of Plasma Physics	12YZFP	Limpouch, Jirka	-	3+1 z, zk	-	4
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) For enrollment in 12YZPLT by students of other specializations, 12YULTB or 12YLTB1 is a prerequisite.

(3) Enrollment in language courses follows the rules given separately.

(4) For enrollment in 12YEPR12, 12YZEL12 is a prerequisite.

Bachelor's Degree Programme

Physical Engineering

Specialization Computational Physics

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
History of Physics 1	02YDEF1	Jex	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virus, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Preparatory week	00YPT	FJFI	1 week z	-	2	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Electricity and Magnetism	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
Language Courses ⁽³⁾	04.	KHVJ	-	-	-	-
Optional courses:						
Minimum in Mathematics 1	00YMAM1	Břeň	0+1 z	-	1	-
Minimum in Mathematics 2	00YMAM2	Pošta	0+1 z	-	1	-
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Fundamentals of Physical Measurements 1, 2	02YZM12	Chaloupka, Škoda, Rojas	2+0 zk	0+4 kz	2	4
Creation of Electronic Documents	14YTED	Materna	0+2 z	-	2	-
General Chemistry 1, 2 ⁽⁴⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
Fundamentals of Algorithmization	18YZALG	Virus, Jarý	-	2+2 z, zk	-	4
Introduction to Laser Technology	12YULTB	Jelínková, Němec, Šulc	-	2+1 kz	-	3
Introduction to Photonics and Nanostructures	12YUFN	Kwiecien, Richter, Proška	-	2+1 kz	-	3

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken the assessment in 01YLAL is obtained.

(3) Enrollment in language courses follows the rules given separately.

(4) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Physical Engineering

Specialization Computational Physics

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus B 3, 4	01YANB34	Krbálek, Kolář	4+4 z, zk	2+4 z, zk	8	6
Numerical Methods 1	12YNME1	Váchal	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Theoretical Physics 1 ⁽¹⁾ , 2 ⁽²⁾	02YTEF12	Hrivnák, Novotný P.	2+2 z, zk	2+2 z, zk	4	4
Computer Algebra Systems	12YPAS	Šiňor	1+1 z	-	2	-
Measurement and Data Processing	12YZMDT	Blažej, Procházka	1+1 z, zk	-	2	-
Programming in C++ 1, 2	18YPRC12	Jarý, Virius	2+2 z	2+2 kz	4	4
Introduction to Scientific Computing	12YUVP	Šiňor	-	1+1 z	-	2
Selected Topics in Modern Physics	12YVPMF	Pšikal	-	2+1 z	-	3
Language Courses ⁽³⁾	04..	KHVJ	-	-	-	-
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Experimental Laboratory 1, 2	02YPRA12	Bielčík, Rojas	0+4 kz	0+4 kz	6	6
Basic Electronics 1, 2	12YZEL12	Pavel	2+1 z, zk	2+1 z, zk	3	3
Introduction to Probability 1, 2	01YUP12	Krbálek, Vybíral	1+1 z, zk	1+1 z, zk	3	3
Seminar on Solid State Physics	11YSFIPL	Kalvoda	1+1 kz	-	2	-
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1
Scientific and Technical Calculation	12YVTV	Procházka	-	1+1 z	-	2
Molecular Physics	12YMOF	Michl, Proška	-	2+0 zk	-	2
Display of Physical Data	12YZFD	Blažej	1+1 kz	-	2	-

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed.

(3) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Physical Engineering

Specialization Computational Physics

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Fundamentals of Solid State Physics	11YZFP	Kalvoda, Mihóková	2+0 zk	-	3	-
Bachelor Project 1, 2	12BPFI12	Havlíková	0+5 z	0+10 z	5	10
Bachelor Seminar	11YBSEM	Kalvoda, Mika Havlíková	-	0+2 z	-	1
Quantum Mechanics 1	02YKM1	Štefaňák	4+2 z, zk	-	6	-
Fundamentals of Electrodynamics	12YZELD	Šiňor	1+1 z, zk	-	2	-
Computer Algebra	12YPOAL	Liska, Šiňor	1+1 kz	-	2	-
Introduction to Computational Physics 1, 2	12YUPF12	Kuchařík, Liska	1+1 z, zk	1+1 z, zk	2	2
Fundamentals of Optics	12YZAOP	Kwiecien	2+0 z, zk	-	2	-
Principles of Plasma Physics	12YZFP	Limpouch, Jirka	-	3+1 z, zk	-	4
Scientific Programming in Python	12YPYTH	Váchal	-	0+2 z	-	2
Introduction to Continuum Dynamics	01YDYKO	Fučík, Strachota	-	2+1 z, zk	-	3
Language Courses ⁽²⁾	04...	KHVJ	-	-	-	-
Optional courses:						
Administration of UNIX System	12YAUX	Šiňor	-	2+0 kz	-	2
Nanotechnology	12YNT	Hulicius, Proška	2+0 zk	-	2	-
Nuclear Physics B	02YZJFB	Wagner	3+0 kz	-	3	-
Programming in Java	18YPJ	Virius	2+2 z, zk	-	5	-
LaTeX - Publication Instrument	01YPSL	Ambrož	-	0+2 z	-	2
Fundamentals of Photonic Structures	12YZFS	Čtyrský, Richter	-	2+0 z, zk	-	2
Practical Classes of Programming	18YPROP	Klinkovský	0+2 kz	-	3	-
Machine Learning in Julia	00YFEL	Adam, Mácha	1+2 kz	-	3	-
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1
Quantum Mechanics 2	02YKM2	Štefaňák	-	4+2 z, zk	-	6

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Nuclear and Particle Physics

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
Fundamentals of Physical Measurements 1, 2	02YZM12	Rojas, Škoda, Švihra	2+0 zk	0+4 kz	2	4
Preparatory week	00YPT	FJFI	1 week z	-	2	-
Basics of Programming	18YZPRO	Virus, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Electricity and Magnetism	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Language Courses ⁽³⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Minimum in Mathematics 1	00YMAM1	Břeň	0+1 z	-	1	-
Minimum in Mathematics 2	00YMAM2	Pošta	0+1 z	-	1	-
History of Physics 1	02YDEF1	Jex, Myška	2+0 z	-	2	-
General Chemistry 1, 2 ⁽⁴⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Physical Seminar 1	02YFYS1	Petrásek	0+2 z	-	2	-
Introduction to Engineering	17YUING	Frýbort, Haušild, Mušálek	2+1 kz	-	3	-
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
Basics of Algorithmization	18YZALG	Virus, Jarý	-	2+2 z, zk	-	4

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken provided the assessment in 01YLAL is obtained.

(3) Enrollment in language courses follows the rules given separately.

(4) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Nuclear and Particle Physics

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus B 3, 4	01YANB34	Krbálek, Kolář	4+4 z, zk	2+4 z, zk	8	6
Numerical Methods 1	12YNME1	Váchal	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Theoretical Physics 1 ⁽¹⁾ , 2 ⁽²⁾	02YTEF12	Hrivnák, Novotný P.	2+2 z, zk	2+2 z, zk	4	4
Experimental Physics	02YEXF	Křížková-Gajdošová, Trzeciak	2+0 zk	-	2	-
Experimental Laboratory 1, 2	02YPRA12	Bielčík, Rojas	0+4 kz	0+4 kz	6	6
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Language Courses ⁽³⁾	04..	KHVJ	-	-	-	-
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Introduction to Elementary Particle Physics	02YUFEC	Matas	2+0 z	-	2	-
Introduction to Probability 1, 2	01YUP12	Krbálek, Vybíral	1+1 z, zk	1+1 z, zk	3	3
Introduction to Quantum Theory	02YUKT	Štefaňák	-	2+0 z	-	2
Special Theory of Relativity	02YSTR	Břeň	-	2+0 zk	-	2
Programming in C++ 1, 2	18YPRC12	Jarý, Virius	2+2 z	2+2 kz	4	4
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed.

(3) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Nuclear and Particle Physics

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Subatomic Physics	02YSF	Karpenko	4+2 z, zk	-	6	-
Quantum Mechanics 1, 2	02YKM12	Štefaňák	4+2 z, zk	4+2 z, zk	6	6
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Detectors and Detection Principles 1, 2	02YDPD12	Contreras, Rojas	2+0 zk	4+0 zk	2	4
Workshop 1 ⁽³⁾	02YVS1	Bielčík	1 týden z	-	1	-
Bachelor Thesis 1, 2	02BPJC12	Bielčík	0+5 z	0+10 z	5	10
Subatomic Physics 2	02YSF2	Óbertová	-	4+2 z, zk	-	6
Language Courses ⁽²⁾	04...	KHVJ	-	-	-	-
Optional courses:						
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Numerical Methods 2	01YNME2	Beneš	-	2+0 kz	-	2
Fundamentals of Electronics	17YZEL	Kropík	2+2 kz	-	3	-
Tools for Simulation and Data Analysis 1	02NSAD1	Hubáček	2+0 z	-	2	-
Simulations and Data Analysis Tools 2	02NSAD2	Hubáček	-	2+0 z	-	2
Introduction to the Standard Model of Microworld	02ZSM	Hubáček	-	2+0 zk	-	2
Seminar on Quark-Gluon Plasma 1, 2	02YROZ12	Bielčík, Bielčíková, Tomášik	2+0 z	2+0 z	2	2
Scientific and Technical Computing	12YVTV	Procházka	-	1+1 z	-	2
Functions of Complex Variable	01YFKO	Šťovíček	-	2+1 z, zk	-	3
Scientific Programming in Python	12YPYTH	Váchal	-	0+2 z	-	2
Vacuum Technology	12YVKT	Švejkar, Petráček	2+2 kz	-	4	-
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.

(3) The course is intended for students of this programme only.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Physics

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus 1	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics - Examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
History of Physics 1	02YDEF1	Jex	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virius, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Preparatory Week	00YPT	FJFI	1 week z	-	2	-
Electricity and Magnetism ⁽³⁾	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Language Courses ⁽⁴⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Essentials of High School Course 1	00YMAM1	Břeň	0+1 z	-	1	-
Essentials of High School Math Course 2	00YMAM2	Pošta	0+1 z	-	1	-
Discrete Mathematics 1, 2 ⁽⁵⁾	01YDIM12	Masáková	2+0 z	2+0 z	2	2
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Physical Seminar 1	02YFYS1	Petrásek	0+2 z	-	2	-
Foundations of Physical Measurements 1, 2 ⁽⁵⁾	02YZM12	Chaloupka, Škoda, Rojas	2+0 zk	0+4 kz	2	4
Introduction to Solid State Physics	11YUFP	Kolenko	-	2+0 zk	-	3
Creating Electronic Documents	14YTED	Materna	0+2 z	-	2	-
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
General Chemistry 1, 2 ⁽⁶⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
Basics of Algorithmization	18YZALG	Virius, Jarý	-	2+2 z, zk	-	4

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken the assessment in 01YLAL is obtained.

(3) Enrollment in 02YELMA can be taken provided the assessment in 02YMECH is obtained.

(4) Enrollment in language courses follows the rules given separately.

(5) The indicated courses can be scheduled simultaneously.

(6) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Physics

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
<i>Compulsory courses:</i>						
Mathematical Analysis A 3, 4	01YANA34	Štampach	4+4 z, zk	4+4 z, zk	9	9
Numerical Mathematics 1	01YNMA1	Oberhuber	4+0 zk	-	4	-
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Differential Equations	01YDIFR	Beneš, Strachota	-	2+2 z, zk	-	4
Theoretical Physics 1 ⁽¹⁾ , 2 ⁽²⁾	02YTEF12	Hrivnák, Novotný P.	2+2 z, zk	2+2 z, zk	4	4
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Language Courses ⁽³⁾	04..	KHVJ	-	-	-	-
<i>Social Sciences</i>						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
<i>Optional courses:</i>						
Special Theory of Relativity	02YSTR	Břeň	-	2+0 zk	-	2
Introduction to Quantum Theory	02YUKT	Štefaňák	-	2+0 z	-	2
Introduction to Elementary Particle Physics	02YUFEC	Matas	2+0 z	-	2	-
Experimental Laboratory 1, 2	02YLCF12	Bielčík	0+2 z	0+2 z	2	2
Selected Topics in Modern Physics	12YVPMF	Pšikal	-	2+1 z	-	3
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed.

(3) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Physics

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Quantum Mechanics 1, 2	02YKM12	Štefaňák	4+2 z, zk	4+2 z, zk	6	6
Functional Analysis 1	01YFANA1	Šťovíček	2+2 z, zk	-	5	-
Functional Analysis 2	01YFAN2	Šťovíček	-	2+2 z, zk	-	5
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Geometric Methods in Physics 1	02YGMF1	Šnobl	2+2 z, zk	-	4	-
Introduction to Particle Physics	02UCF	Hubáček	2+2 z, zk	-	4	-
General Relativity	02YGTR	Tomášik	2+2 z, zk	-	4	-
Functions of Complex Variable	01YFKO	Šťovíček	-	2+1 z, zk	-	3
Bachelor Seminar	01YBASE	Strachota	-	0+2 z	-	1
Bachelor Thesis 1, 2	02BPMI12	Šnobl	0+5 z	0+10 z	5	10
Language Courses ⁽²⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Differential Equations, Symmetries and Groups	02DRG	Šnobl	-	2+2 z	-	4
Simulations and Data Analysis Tools 1	02NSAD1	Hubáček	2+0 z	-	2	-
Algebra	01YALGE	Masáková	4+1 z, zk	-	6	-
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Topology	01YTOP	Burdík	2+0 zk	-	2	-
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Informatics

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus 1	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Discrete Mathematics 1, 2	01YDIM12	Masáková	2+0 z	2+0 z	2	2
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics - Examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
Electricity and Magnetism ⁽³⁾	02YELMA	Chadžitaskos, Yalcinkaya	-	4+2 z, zk	-	6
History of Physics 1	02YDEF1	Jex	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virius, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Basics of Algorithmization	18YZALG	Virius, Jarý	-	2+2 z, zk	-	4
Preparatory Week	00YPT	FJFI	1 week z	-	2	-
Language Courses ⁽⁴⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Essentials of High School Course 1	00YMAM1	Břeň	0+1 z	-	1	-
Essentials of High School Course 2	00YMAM2	Pošta	0+1 z	-	1	-
General Chemistry 1, 2 ⁽⁵⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken the assessment in 01YLAL is obtained.

(3) Enrollment in 02YELMA can be taken provided the assessment in 02YMECH is obtained.

(4) Enrollment in language courses follows the rules given separately.

(5) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Informatics

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Mathematical Analysis A 3, 4	01YANA34	Štampach	4+4 z, zk	4+4 z, zk	9	9
Numerical Mathematics 1	01YNMA1	Oberhuber	4+0 zk	-	4	-
Differential Equations	01YDIFR	Beneš, Strachota	-	2+2 z, zk	-	4
Discrete Mathematics 3	01YDIMA3	Dvořáková	2+0 zk	-	2	-
Linear Programming	01YLIP	Fučík, Bureš	2+1 z, zk	-	3	-
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Programování v C++ 1, 2	18YPRC12	Virus, Jarý	2+2 z	2+2 kz	4	4
Algebra and Calculus in Applications	01YTA	Dvořáková	-	2+0 zk	-	2
Language Courses ⁽¹⁾	04..	KHVJ	-	-	-	-
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Neural Networks 1	18YNES1	Petříčková	-	2+2 kz	-	5
Theoretical Physics 1 ⁽²⁾ , 2 ⁽³⁾	02YTEF12	Hrivnák, Novotný P.	2+2 z, zk	2+2 z, zk	4	4
Basic Electronics 1, 2	12YZEL12	Pavel	2+1 z, zk	2+1 z, zk	3	3
Introduction to Scientific Computing	12YUVP	Šiňor	-	1+1 z	-	2
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1

(1) Enrollment in language courses follows the rules given separately.

(2) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(3) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Informatics

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Functions of Complex Variable	01YFKO	Šťovíček	-	2+1 z, zk	-	3
Algebra	01YALGE	Masáková	4+1 z, zk	-	6	-
Programming in Java	18YPJ	Virus	2+2 z, zk	-	5	-
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Computer Graphics 1, 2	01YPGR12	Strachota	1+1 z, zk	1+1 z, zk	2	2
Theory of Codes	01YTKO	Pelantová	-	2+0 zk	-	2
Introduction to Operating Systems	01YZAOS	Čulík	-	2+0 z, zk	-	2
Numerical Mathematics 2	01YNMA2	Beneš, Oberhuber	-	2+1 z, zk	-	3
Bachelor Seminar	01YBASE	Strachota	-	0+2 z	-	1
Bachelor project 1, 2	01BPMI12	Strachota	0+5 z	0+10 z	5	10
Language Courses ⁽¹⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Introduction to Machine Learning	01YUSU	Flusser, Franc	2+2z,zk	-	4	-
Windows Programming	01YPW	Čulík	2+0 z	-	2	-
Simple Compilers	01YJEPR	Čulík	-	2 z	-	2
Programming of Peripherals Devices	01YPERI	Čulík	2+0 z	-	2	-
Principles of Statistical Decision Making	01YPSR	Kůs	-	2+0 zk	-	2
Functional Analysis 1	01YFANA1	Šťovíček	2+2 z, zk	-	5	-
Functional analysis 2	01YFAN2	Šťovíček	-	2+2 z, zk	-	5
LaTeX - Publication Instrument	01YPSL	Ambrož	-	0+2 z	-	2
Computer Algebra	12YPOAL	Liska, Šiňor	1+1 kz	-	2	-
Development of internet applications	18YINTA	Majerová, Klinkovský	-	2+2 kz	-	4
History of Mathematics ⁽²⁾	01YDEM	Dvořáková	-	0+2 z	-	1
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Enrollment in language courses follows the rules given separately.

(2) The course runs only once every 2 years.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Modelling

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus 1	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination ⁽¹⁾	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination ⁽²⁾	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
Electricity and Magnetism ⁽³⁾	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
History of Physics 1	02YDEF1	Jex, Myška	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virus, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Basics of Algorithmization	18YZALG	Virus, Jarý	-	2+2 z, zk	-	4
Preparatory Week	00YPT	FJFI	1 week z	-	2	-
Language Courses ⁽⁴⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Essentials of High School Course 1	00YMAM1	Břeň	0+1 z	-	1	-
Essentials of High School Course 2	00YMAM2	Pošta	0+1 z	-	1	-
Discrete Mathematics 1, 2	01YDIM12	Masáková	2+0 z	2+0 z	2	2
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Creating Electronic Documents	14YTED	Materna	0+2 z	-	2	-
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
General Chemistry 1, 2 ⁽⁵⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3

(1) Examination in 01YMANZ can be taken provided the assessment in 01YMAN is obtained.

(2) Examination in 01YLALZ can be taken provided the assessment in 01YLAL is obtained.

(3) Enrollment in 02YELMA can be taken provided the assessment in 02YMECH is obtained.

(4) Enrollment in language courses follows the rules given separately.

(5) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Modelling

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Mathematical Analysis A 3, 4	01YANA34	Štampach	4+4 z, zk	4+4 z, zk	9	9
Numerical Mathematics 1	01YNMA1	Oberhuber	4+0 zk	-	4	-
Differential Equations	01YDIFR	Beneš, Strachota	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Theoretical Physics 1 ⁽¹⁾	02YTEF1	Hrivnák, Novotný P.	2+2 z, zk	-	4	-
Linear Programming	01YLIP	Fučík, Bureš	2+1 z, zk	-	3	-
Introduction to Continuum Dynamics	01YDYKO	Fučík, Strachota	-	2+1 z, zk	-	3
Language Courses ⁽²⁾	04..	KHVJ	-	-	-	-
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Introduction to Scientific Computing	12YUVP	Šiňor	-	1+1 z	-	2
Computer Algebra Systems	12YPAS	Šiňor	1+1 z	-	2	-
Programming in C++ 1, 2	18YPRC12	Jarý, Virius	2+2 z	2+2 kz	4	4
Introduction to quantum informatics	18YUQI	Wodecki	-	2+0 z	-	3
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Mathematical Engineering

Specialization Mathematical Modelling

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Algebra	01YALGE	Masáková	4+1 z, zk	-	6	-
Functional Analysis 1	01YFANA1	Šťovíček	2+2 z, zk	-	5	-
Functional Analysis 2	01YFAN2	Šťovíček	-	2+2 z, zk	-	5
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Measure and Probability	01YMIP	Hobza, Kůs	4+2 z, zk	-	6	-
Mathematical Statistics	01YMAS	Kůs	-	2+0 zk	-	3
Numerical Mathematics 2	01YNMA2	Beneš, Oberhuber	-	2+1 z, zk	-	3
Functions of Complex Variable	01YFKO	Šťovíček	-	2+1 z, zk	-	3
Geometric Theory of Ordinary Differential Equations	01YGTDR	Beneš	0+2 z	-	2	-
Bachelor Seminar	01YBASE	Strachota	-	0+2 z	-	1
Bachelor project 1, 2	01BPM12	Strachota	0+5 z	0+10 z	5	10
Language Courses ⁽²⁾	04..	KHVJ	-	-	-	-
Optional courses:						
Topology	01YTOP	Burdík	2+0 zk	-	2	-
Differential Equations, Symmetries and Groups	02DRG	Šnobl	-	2+2 z	-	4
Mathematical Models of Groundwater Flow	01YMMPV	Mikyška	-	2+0 kz	-	2
Markov processes	01YMAPR	Vybíral	-	2+2 z, zk	-	4
Simple Compilers	01YJEPR	Čulík	-	2 z	-	2
Principles of Statistical Decision Making	01YPSR	Kůs	-	2+0 zk	-	2
Practical training in programming	18YPROP	Klinkovský	0+2 kz	-	3	-
Introduction to Operating Systems	01YZAOS	Čulík	-	2+0 z, zk	-	2
Theory of Codes	01YTKO	Pelantová	-	2+0 zk	-	2
Programming in Java	18YPJ	Virus	2+2 z, zk	-	5	-
Scientific Programming in Python	12YPYTH	Váchal	-	0+2 z	-	2
LaTeX - Publication Instrument	01YPSL	Ambrož	-	0+2 z	-	2
History of Mathematics ⁽³⁾	01YDEM	Dvořáková	-	0+2 z	-	1
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.

(3) The course runs only once every 2 years.

Bachelor's Degree Programme

Quantum Technologies

1st year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus	01YMAN	Strachota, Pelantová	4+4 z	-	4	-
Calculus 1, examination	01YMANZ	Strachota, Pelantová	- zk	-	4	-
Linear Algebra 1	01YLAL	Ambrož, Dvořáková	2+2 z	-	2	-
Linear Algebra 1, examination	01YLALZ	Ambrož, Dvořáková	- zk	-	2	-
Mechanics	02YMECH	Břeň, Yalcinkaya	4+2 z	-	4	-
Mechanics, examination	02YMECHZ	Břeň, Yalcinkaya	- zk	-	2	-
History of Physics 1	02YDEF1	Jex, Myška	2+0 z	-	2	-
Basics of Programming	18YZPRO	Virius, Klinkovský, Petříčková, Jarý	4 z	-	4	-
Preparatory week	00YPT	FJFI	1 week z	-	2	-
Fundamentals of Physical Measurements 1, 2	02YZM12	Chaloupka, Škoda, Rojas	2+0 zk	0+4 kz	2	4
Calculus 2	01YMAN2	Pelantová, Pošta	-	4+4 z, zk	-	8
Linear Algebra 2	01YLAL2	Dvořáková, Ambrož	-	2+2 z, zk	-	4
Electricity and Magnetism	02YELMA	Chadzitaskos, Yalcinkaya	-	4+2 z, zk	-	6
Heat and Molecular Physics	02YTER	Petrásek	-	2+2 z, zk	-	4
Language Courses ⁽¹⁾	04.	KHVJ	-	-	-	-
Optional courses:						
Minimum in Mathematics 1	00YMAM1	Břeň	0+1 z	-	1	-
Minimum in Mathematics 2	00YMAM2	Pošta	0+1 z	-	1	-
History of Physics 2	02YDEF2	Jex, Myška	-	2+0 z	-	2
Physical Seminar 1	02YFYS1	Petrásek	0+2 z	-	2	-
Introduction to Solid State Physics	11YUFP	Kolenko	-	2+0 zk	-	3
Introduction to Photonics and Nanostructures	12YUFN	Kwiecien, Richter, Proška	-	2+1 kz	-	3
Introduction to UNIX	12YUNXAP	Kuchařík	-	1+1 z	-	2
Creation of Electronic Documents	14YTED	Materna	0+2 z	-	2	-
Introduction to Engineering	17YUING	Frýbort, Haušild, Mušálek	2+1 kz	-	3	-
General Chemistry 1, 2 ⁽²⁾	15YCH12	Distler	2+1 z	2+1 z, zk	3	3
Programming in Python 1	18YPPY1	Klinkovský, Moješ	-	2 z	-	2

(1) Enrollment in language courses follows the rules given separately.

(2) Enrollment in 15YCH2 is possible only after passing 15YCH1.

Bachelor's Degree Programme

Quantum Technologies

2nd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Calculus B 3, 4	01YANB34	Krbálek, Kolář	4+4 z, zk	2+4 z, zk	8	6
Numerical Methods 1	12YNME1	Váchal	-	2+2 z, zk	-	4
Waves, Optics and Atomic Physics	02YVOAF	Novotný P., Schmidt	4+2 z, zk	-	6	-
Introduction to Laser Technology	12YULAT	Jelínková, Šulc	2 kz	-	2	-
Theoretical Physics 1 ⁽¹⁾ , 2 ⁽²⁾	02YTEF12	Hrivnák, Novotný P.	2+2 z, zk	2+2 z, zk	4	4
Experimental Laboratory 1, 2	02YPRA12	Bielčík, Rojas	0+4 kz	0+4 kz	6	6
Thermodynamics and Statistical Physics	02YTSFA	Jex, Novotný J.	-	2+2 z, zk	-	4
Language Courses ⁽³⁾	04	KHVJ	-	-	-	-
Social Sciences						
Presentation Course	04YAPI	Vadillo	0+2 z	-	2	-
Optional courses:						
Special Theory of Relativity	02YSTR	Břeň	-	2+0 zk	-	2
Introduction to Elementary Particle Physics	02YUFEC	Matas	2+0 z	-	2	-
Introduction to Quantum Theory	02YUKT	Štefaňák	-	2+0 z	-	2
Experimental Physics	02YEXF	Křížková-Gajdošová, Trzeciak	2+0 zk	-	2	-
Selected Topics in Modern Physics	12YVPMF	Pšikal	-	2+1 z	-	3
Introduction to Scientific Computing	12YUVP	Šiňor	-	1+1 z	-	2
Basic Electronics 1, 2	12YZEL12	Pavel	2+1 z, zk	2+1 z, zk	3	3
Programming in C++ 1, 2	18YPRC12	Jarý, Virius	2+2 z	2+2 kz	4	4
Programming in Python 2, 3	18YPPY23	Klinkovský, Pecinovský	2 z	2 z	2	2
Neural networks 1	18YNES1	Petrířková	-	2+2 kz	-	5
Seminar on Solid State Physics	11YSFIPL	Kalvoda	1+1 kz	-	2	-
Physical Training 1, 2	TV-12	ČVUT	- z	- z	1	1
Scientific and Technical Calculation	12YVTV	Procházka	-	1+1 z	-	2
Molecular Physics	12YMOF	Michl, Proška	-	2+0 zk	-	2

(1) Examination in 02YTEF1 can be taken only if 02YMECHZ is passed.

(2) Examination in 02YTEF2 can be taken only if 02YELMA and 02YTEF1 are passed

(3) Enrollment in language courses follows the rules given separately.

Bachelor's Degree Programme

Quantum Technologies

3rd year

Course	code	lecturer	win. sem.	sum. sem.	cr	cr
Compulsory courses:						
Equations of Mathematical Physics ⁽¹⁾	01YRMFB	Klika, Konopka	2+2 z, zk	-	5	-
Probability and Statistics	01YPRST	Hobza	3+1 z, zk	-	4	-
Quantum Laboratory 1	11YKPRA1	Kalvoda, Šulc	0+4 kz	-	4	-
Quantum Mechanics 1, 2	02YKM12	Štefaňák	4+2 z, zk	4+2 z, zk	6	6
Fundamentals of Classical Optics and Electrodynamics	12YKOE	Kwiecien, Richter, Šiňor	-	4+0 zk	-	4
Quantum Laboratory 2	02YKPRA2	Čepila	-	0+4 kz	-	4
Bachelor Project 1, 2	02BPQT12	Hamrle, Štefaňák, Šulc	0+5 z	0+10 z	5	10
Language Courses ^(1,2)	04...	KHVJ	-	-	-	-
Optional courses:						
Detectors and Detection Principles 1, 2	02YDPD12	Contreras, Rojas	2+0 zk	4+0 zk	2	4
Functions of Complex Variable	01YFKO	Šťovíček	-	2+1 z, zk	-	3
Vacuum Technology	12YVKT	Švejkar, Petráček	2+2 kz	-	4	-
Scientific Programming in Python	12YPYTH	Váchal	-	0+2 z	-	2
Scientific and Technical Computing	12YVTV	Procházka	-	1+1 z	-	2
Fundamentals of Solid State Physics	11YZFP	Kalvoda, Mihóková	2+0 zk	-	3	-
Basic Laser Technology Laboratory	12YZPLT	Blažej	-	0+4 kz	-	6
Fundamentals of Photonic Structures	12YZFS	Čtyrský, Richter	-	2+0 z, zk	-	2
Laser Systems	12YLAS	Kubeček	-	2+1 z, zk	-	3
Neural networks 2	18YNES2	Petříčková	-	2+2 kz	-	5
Physical Training 3, 4	TV-34	ČVUT	- z	- z	1	1

(1) Examination in 01YRMFB can be taken only if all courses in Calculus and Linear Algebra are passed.

(2) Enrollment in language courses follows the rules given separately.