

Department of Physics

بهشی فیزیا

First year

Code	Module	یەكە Units	ژمارە ی کاتژمێر له ههفتهیه کدا Hours / Week			بابهت
			گفتوگۆ Tutorial	پراکتیکی Lab	تێوری Lecture	
SPh101	Information technology	4	1	2	-	
SPh102	English Language	6	2	2	-	
SPh103	Kurdology	4	2	-	-	
SPh104	Academic Debate & Critical thinking	4	1	2	-	
SPh105	Mechanics and properties of matter	6	3	-	1	
SPh106	Electricity and magnetism	6	3	-	1	
SPh107	Calculus	6	3	-	1	
SPh108	Practical Physics	4	-	6	-	
SPh109	Scientific Trip	-	-	-	-	
Total		40	15	12	3	کۆی گشتی

Second Year

Code	Module	یہ کہ Units	ژمارہی کاتر مینر لہ ہفتہ بہ ہفتہ Hours / Week			بابہت
			گنر گنر Tutorial	پراکٹیکہ Lab	تئوری Lecture	
SPh201	Analytical Mechanics	6	3	-	-	
SPh201	Electrical Measurements	6	3	-	-	
SPh203	Heat & Thermodynamics	6	3	-	-	
SPh204	Atomic Physics	6	3	-	-	
SPh205	Practical Physics	6	-	9	-	
SPh206	Differential Equations	6	3	-	1	
SPh207	Linear Algebra	4	2	-	1	
SPh208	Scientific Trip	-	-	-	-	
Total		40	17	9	2	کزی گشتی

Third Year-General Physics Branch

Code	Module	یہ کہ Units	ژمارہی کاتر مینر لہ ہفتہ بہ ہفتہ Hours / Week			بابہت
			گنر گنر Tutorial	پراکٹیکہ Lab	تئوری Lecture	
SPh301	Quantum Mechanics	6	3	-	-	
SPh302	Optics	6	3	-	-	
SPh303	Electronics	6	3	-	-	
SPh304	Complex Analysis	4	2	-	1	
SPh305	Numerical Analysis	6	2	2	-	
SPh306	Practical Physics	4	-	6	-	
SPh307	Elective	4	2	-	-	
SPh308	Scientific Trip	-	-	-	-	
Total		36	15	8	1	کزی گشتی

Elective

1. Statistical Mechanics.
2. Crystallography.
3. Satellite Meteorology.
4. Ecology.
5. Space Physics.
6. Astrophysics.
7. History of Physics.
8. Applied Optics.
9. Optical Spectroscopy.

Third Year-Applied Physics (Medical Branch)

Code	Module	یہ کہ Units	ژمارہی کاتر مینر لہ ہفتہ یہ کدا Hours / Week			بابہت
			گفتو گور Tutorial	پراکتیکی Lab	تیوری Lecture	
SPh301	Quantum Mechanics (1 st Semester)	3	3	-	-	
SPh302	Optics (1 st Semester)	3	3	-	-	
SPh303	Electronics	6	3	-	-	
SPh306	Practical Physics	6	-	9	-	
SPh308	Medical Physics	4	2	-	-	
SPh309	Mathematical Physics	4	2	-	-	
SPh310	Computational Physics	4	1	2	-	
SPh311	Electromagnetic Theory (2 nd semester)	3	3	-	-	
SPh312	Advanced Nuclear Physics (2 nd semester)	3	3	-	-	
SPh313	Scientific Trip	-	-	-	-	
Total		36	20	11	-	کوی گشتی

Third Year-Applied Physics (Communication Branch)

Code	Module	یہ کہ Units	ژمارہی کاتر مینر لہ ہفتہ یہ کدا Hours / Week			بابہت
			گفتو گور Tutorial	پراکتیکی Lab	تیوری Lecture	
SPh301	Quantum Mechanics (1 st Semester)	3	3	-	-	
SPh302	Optics (1 st Semester)	3	3	-	-	
SPh303	Electronics	6	3	-	-	
SPh306	Practical Physics	6	-	9	-	
SPh309	Mathematical Physics	4	2	-	-	
SPh310	Computational Physics	4	1	2	-	
SPh3011	Communication	4	2	-	-	
SPh3012	Electromagnetic Theory (2 nd semester)	3	3	-	-	
SPh3013	Advanced Nuclear Physics (2 nd semester)	3	3	-	-	
SPh3014	Scientific Trip	-	-	-	-	
Total		36	20	11	-	کوی گشتی

Fourth Year-General Physics Branch

Code	Module	یہگہ Units	ژمارہی کاتژمیر له ههفتهیهکدا Hours / Week			بایهت
			گفتوگۆ Tutorial	پراکتیکی Lab	تپۆری Lecture	
SPh401	Nuclear Physics	6	3	-	-	
SPh402	Solid State Physics	6	3	-	-	
SPh403	Electromagnetic Theory	6	3	-	-	
SPh404	Laser	4	2	-	-	
SPh405	Practical Physics 2	4	-	6	-	
SPh406	Research Project	4	1	2	-	
SPh407	Elective (1) (1 st semester)	2	2	-	-	
SPh408	Elective (2) (1 st semester)	2	2	-	-	
SPh410	Elective (3) (2 nd semester)	2	2	-	-	
SPh411	Elective (4) (2 nd semester)	2	2	-	-	
SPh412	Scientific Trip	-	-	-	-	
Total		38	20	8	-	کۆی گشتی

Elective (1) (1st semester)

1. Environmental Physics
2. Mathematical Physics
3. Acoustic.
4. Meteorology
5. Elementary Particle
6. Electromagnetic Environment.

Elective (2) (1st semester)

1. Reactor Physics.
2. Accelerator Physics.
3. Statistics.
4. Space Physics.
5. Plasma

Elective (3) (2nd semester)

1. Atmospheric Physics.
2. Detectors.
3. Radioisotope and Applications.
4. Radiation Protection.
5. Nuclear Chemistry.
6. Networking.

Elective (4) (2nd semester)

1. Semiconductors.
2. Material Science.
3. Thin Films Physics.
4. Physics of Crystal Growth
5. Superconductivity.

Fourth Year-Applied Physics (Medical Branch)

Code	Module	یہ کہہ Units	ژمارہی کاترمیر لہ ہفتہہیہکدا Hours / Week			بابہت
			گفتوگو Tutorial	پراکتیکی Lab	تیوری Lecture	
SPh402	Solid State Physics (1 st semester)	3	3	-	-	
SPh404	Laser	6	3	-	-	
SPh406	Research Project	4	1	2	-	
SPh409	Radiation Dosimetry	6	3	-	-	
SPh4010	Medical Imaging	4	2	-	-	
SPh4011	Medical Imaging Lab.	2	-	3	-	
SPh4012	Laser Lab.	2	-	3	-	
SPh4013	Solid State Lab. (1 st semester)	1	-	3	-	
SPh4014	Elective (5)(1 st semester)	2	2	-	-	
SPh412	Nanotechnology (2 nd semester)	3	3	-	-	
SPh413	Elective (6) (2 nd semester)	2	2	-	-	
SPh414	Elective (7) (2 nd semester)	3	3	-	-	
SPh415	Scientific Trip	-	-	-	-	
Total		38	22	11	-	کوی گشتی

Elective (5) (1st semester)

1. Elementary Particle.
2. Acoustic.
3. Environmental Physics
4. Electromagnetic Environment
5. Meteorology
6. Acoustic.

Elective (6) (2nd semester)

1. Electromagnetic Environment
2. Weather Forecast.
3. Networking
4. Statistics
5. Semiconductors.
6. Meteorology.

Elective (7) (2nd semester)

1. Nuclear Chemistr
2. Radioisotope and Applications
3. Radiation Protection
4. Detectors
5. Medical Instruments.

Fourth Year-Applied Physics (Communication Branch)

Code	Module	یہیکہ Units	ژمارہی کانٹرمیر لہ ہفتہیہیکدا Hours / Week			بابہت
			گفتوگور Tutorial	پراکتیکی Lab	تیوری Lecture	
SPh402	Solid State Physics (1 st semester)	3	3	-	-	
SPh404	Laser	4	2	-	-	
SPh406	Research Project	4	1	2	-	
SPh4012	Laser Lab.	2	-	3	-	
SPh4013	Solid State Lab. (1 st semester)	1	-	3	-	
SPh4015	Mobile Radio	6	3	-	-	
SPh4016	Signal Processing	6	3	-	-	
SPh4017	Mobile Radio Lab.	2	-	3	-	
SPh4018	Elective (8) (Annual)	4	2	-	-	
SPh412	Nanotechnology (2 nd semester)	3	3	-	-	
SPh415	Elective (9) (2 nd semester)	3	3	-	-	
SPh416	Scientific Trip	-	-	-	-	
Total		38	20	11	-	کزی گشتی

Elective (8) (Annual)

1. Networking.
2. Space Physics.

Elective (9) (2nd semester)

1. Antenna Design.
2. Semiconductors.
3. Meteorology.
4. Electromagnetic Environment.
5. Atmospheric Physics.
6. Plasma.
7. Meteorology.
8. Weather forecast.
9. Acoustic.