MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN

"APPROVED"

Rector of UNEC

prof. A.J.Muradov (signature) "_____ 20__ year

AZERBAIJAN STATE UNIVERSITY OF ECONOMICS (UNEC)

EDUCATIONAL PLAN

(for undergraduate level) Education period 4 years (8 semesters) Name and code of specialty:

050607 - Electrical and electrionics engineering

SCHEDULE OF THE EDUCATIONAL PROCESS

| | | Septe | mber | | 29 IX 5 X | 0 | ctob | er | 27 X 2 XI | | Nov | vemb | ber | I | Dece | mbe | r | 29 XII 4 I | J | anu | ary | 26 I 1 II | F | ebru | ary | 23 II 1 III | [| Ma | arch | | 30 111 5 IV | | Apri | I | 27 IV 3 V | | М | ay | | | Ju | ne | | 29 VI 5 VII | | July | | 27 VII 2 VIII | | Aug | gust | |
|---|--------|---------|----------|----------|--------------------|---------|----------|----------|--------------------|--------|----------|----------|----------|--------|---------|----------|----------|---------------------|---------|----------|----------|--------------------|--------|---------|----------|----------------------|--------|---------|----------|----------|----------------------|---------|----------|----------|--------------------|---------|----------|----------|----------|--------|---------|----------|----------|----------------------|---------|----------|----------|------------------------|--------|----------|----------|----------|
| Π | 1 7 | 8 14 | 15 21 | 22 28 | | 6 12 | 13 19 | 20 26 | | 3 9 | 10 16 | 17 23 | 24 30 | 1 7 | 8 14 | 15 21 | 22 28 | | 5 11 | 12 18 | 19 25 |) | 2 8 | 9 15 | 16 22 | | 2 8 | 9 15 | 16 22 | 23 29 | | 6 12 | 13 19 | 20 26 | | 4 10 | 11 17 | 18 24 | 25 31 | 1 7 | 8 14 | 15 21 | 22 28 | | 6 12 | 13 19 | 20 26 | | 3 9 | 10 16 | 17 23 | 24 30 |
| 1 | - | - | Т | T | Т | T | T | Т | Т | T | T | T | T | Т | Т | Т | Т | :: | :: | :: | :: | :: | = | = | Т | Т | T | T | T | T | Т | Т | T | Т | T | Т | Т | T | Т | :: | :: | :: | :: | :: | = | = | = | = | = | = | = | = |
| 2 | = | = | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | :: | :: | :: | :: | :: | = | = | Т | Т | Т | N | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | :: | :: | :: | :: | :: | = | = | = | = | = | = | = | = |
| 3 | = | = | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | :: | :: | :: | :: | :: | = | = | Т | Т | Т | T | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | Т | :: | :: | :: | :: | :: | = | = | = | = | = | = | = | = |
| 4 | = | = | Т | Т | Т | Т | T | Т | Т | Т | T | T | Т | Т | T | Т | Т | :: | :: | :: | :: | :: | = | = | T T | T T | T | T T | T T | T T | T T | T T | T T | T T | T T | T T | T T | T T | T | :: | :: | :: | :: | :: | | | | | | | | |

| SYMBOLS: | THEORETCAL TRAINING | EXAM SESSION T | RAINING AND PRACTICE | FINAL STATE CERTIFICATION | VACATION |
|----------|---------------------|----------------|----------------------|---------------------------|----------|
| | | :: | X | // | = |

I. PLAN OF EDUCATIONAL PROCESS

| | | | | | Hours | | | Including | | Prerequisite | Requisite | Semester | |
|---|--|---|-------------------------|----------------|----------------------------------|-------------------|---------|---------------------|------------|---|---|---|--------------------|
| № | Code of the subjects | Name of the subjects | Number of credits | Total hours | Hours outside the audience | Audience hours | Lecture | Seminar training | Laboratory | first of all, code of necessary subjects | code of subjects considered parallel teaching | when subject is teaching (fall or summer) | Weekly workload |
| | Total | | 240 | 7200 | 4890 | 2310 | 1020 | 840 | 450 | | | | |
| | General | subjects | 30 | 900 | 465 | 435 | 90 | 345 | 0 | | | | |
| 1 | 00004 | Business and academic communication in Azerbaijani language | 4 | 120 | 60 | 60 | | 60 | | | | S–2 | 4 |
| 2 | 00005 | History of Azerbaijan | 5 | 150 | 90 | 60 | 30 | 30 | | | | S-1 | 4 |
| 3 | 00052 | Business and academic communication in a foreign language-1 | 4 | 120 | 60 | 60 | | 60 | | | | F–1 | 6 |
| 4 | 00073 | Business and academic communication in a foreign language-2 | 3 | 90 | 45 | 45 | | 45 | | 00052 | | S-1 | 3 |
| 5 | 00932 | Business and academic communication in a foreign language-3 | 4 | 120 | 60 | 60 | | 60 | | 00073 | | F–2 | 4 |
| 6 | 00933 | Business and academic communication in a foreign language-4 | 4 | 120 | 60 | 60 | | 60 | | 00932 | | S–2 | 4 |
| 7 | | | | | | | | | | | | | |
| | Elective subjects) | subjects (on general | 6 | 180 | 90 | 90 | 60 | 30 | 0 | | | | |
| 8 | 00341 00830 00149 00574 00317 00632 | Philosophy Sociology Fundamentals of law and Constitution of AR Logic Ethics and aesthetics Introduction to multiculturalism | 3 | 90 | 45 | 45 | 30 | 15 | | | | F-2 | 3 |

FORM №1

| | | | | 1 | | | | [| | | | | |
|----|------------|--|--|---------|-------|----------|------|-----|-----|-------|----------|-------------------|--------|
| | 00402 | 1. Infomation technologies (by | 3 | 90 | 45 | 45 | 30 | 15 | | | <u>.</u> | F-3 | 3 |
| | | major) | | | _ | _ | | | | | | | |
| | 00404 | 2.Information management | | | | | | | | | | | |
| 0 | 00758 | 3. Fundamentals of | | | | | | | | | | | |
| 9 | | entrepreneurship and | | | | | | | | | | | |
| | 00671 | introduction to business | | | | | | | | | | | |
| | | 4.Political science | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | a | | 1.00 | 2 (0 0 | | 10.15 | (20) | | | | | | |
| | Specialty | subjects | 120 | 3600 | 2355 | 1245 | 630 | 345 | 270 | | | | |
| 10 | 00055 | Linear algebra and analytic | 4 | 120 | 75 | 45 | 30 | 15 | | | | S-1 | 3 |
| 10 | 00055 | geometry | | | | | | | | | | | |
| 11 | 00040 | Mathematical analysis | 8 | 240 | 180 | 60 | 30 | 30 | | | | F –1 | 4 |
| 12 | 00891 | Applied mathematics | 4 | 120 | 75 | 45 | 30 | 15 | | | | F-2 | 3 |
| 13 | 00015 | Fundamentals of physics | 6 | 180 | 105 | 75 | 30 | | 45 | | | F-I | 5 |
| 14 | 00121 | Applied physics Chomistry | 0 | 180 | 120 | 00 | 30 | | 30 | | | <u>5-1</u> E 1 | 4 |
| 15 | 00027 | Electric Circuits Theory I | 7 | 210 | 103 | 60 | 30 | 15 | 45 | | | F-1 F-2 | 3 4 |
| 17 | 00284 | Electric Circuits Theory I | 5 | 150 | 90 | 60 | 30 | 15 | 15 | 00285 | | <u>S-2</u> | 4 |
| 18 | 00093 | Engineering mechanics | 6 | 180 | 120 | 60 | 30 | 30 | | 00200 | | <u>S-1</u> | 4 |
| 10 | 00004 | Engineering and computer | 6 | 180 | 120 | 60 | 30 | 30 | | | | <u>S-1</u> | 4 |
| 19 | 00094 | graphics | | | | | | | | | | | |
| 20 | 00291 | Electrical measurements and | 6 | 180 | 120 | 60 | 30 | 15 | 15 | | | F–2 | 4 |
| | 002/1 | instruments | | | | | | | | | | | |
| 21 | 00289 | Electrical machines | 6 | 180 | 105 | 75 | 30 | 15 | 30 | | | <u>S-3</u> | 5 |
| 22 | 00144 | Analog electronics | 6 | 180 | 120 | 60 | 30 | 15 | 15 | | | S-2 | 4 |
| 23 | 00292 | electronic technique | 0 | 190 | 120 | 0U | 30 | 15 | 15 | | | r -2 | 4 |
| | | Digital electronics and | 6 | 180 | 120 | 60 | 30 | 15 | 15 | + | | F_3 | 4 |
| 24 | 00733 | programmable integrated | , v | 100 | 140 | | 50 | 13 | 13 | | | r-3 | - |
| | | circuits | | | | | | | | | | | |
| 25 | 00380 | Management theory | 6 | 180 | 120 | 60 | 30 | 30 | | | | S–3 | 4 |
| 26 | 00020 | Computer technologies and | 6 | 180 | 120 | 60 | 30 | 30 | | | | F–1 | 4 |
| 20 | 00029 | programming | | | | _ | | | | | | | |
| 27 | 00360 | Power electronics and power | 5 | 150 | 90 | 60 | 30 | 15 | 15 | | | S–3 | 4 |
| 20 | 00702 | transmission Signals and systems | (| 190 | 120 | (0) | 20 | 15 | 15 | | | БЭ | 4 |
| 28 | 00793 | Signals and systems | 0 6 | 180 | 120 | <u> </u> | 30 | 15 | 15 | | | F-3 | 4 |
| 29 | 00757 | technology | U | 100 | 155 | 45 | 50 | 15 | | | | 5-2 | 3 |
| 30 | 00034 | Civil defense | 3 | 90 | 45 | 45 | 30 | 15 | | | | F-3 | 3 |
| | | | | | | | | | | | | | |
| | Elective s | ubjects (in specialty | 60 | 1800 | 1170 | 630 | 300 | 195 | 135 | | | | |
| | subjects) | ungeens (in speciality | | 1000 | | | 000 | 170 | 100 | | | | |
| | 00592 | 1.Microprocessor technology | 6 | 180 | 120 | 60 | 30 | 30 | | | | F-3 | 4 |
| | 00488 | 2.Computer networks | , in the second se | 100 | 120 | 00 | 20 | 20 | | | | 10 | - |
| 31 | 00303 | 3.Operating systems | | | | | | | | | | | |
| | 00496 | 4.Architecture of computer | | | | | | | | | | | |
| | | systems | | | | | | | | | | | |
| | 00146 | 1.Antenna, radiolocation links | 6 | 180 | 120 | 60 | 30 | 15 | 15 | | | F–3 | 4 |
| 32 | 00288 | 2.Methods of wireless | | | | | | | | | | | |
| 32 | 00200 | transmission of electrical | | | | | | | | | | | |
| | 00589 | 3.Microwave technique | | | | | | | | | | | |
| | 00638 | 1.Fundamentals of nano | 6 | 180 | 120 | 60 | 30 | 15 | 15 | | | F –4 | 4 |
| | 00187 | electricity | | | | | | | | | | | |
| 33 | 00587 | 2. Fundamentals of | | | | | | | | | | | |
| | | bioelectronics | | | | | | | | | | | |
| | | 5. Materials of micro- and | | | | | | | | | | | |
| | 00296 | nanoelectromics | 6 | 180 | 120 | 60 | 30 | 15 | 15 | | | <u>S_3</u> | 4 |
| | 00250 | 1.Designing electronic devices | Ŭ | 100 | 120 | 00 | 50 | 15 | 13 | | | 5-5 | - |
| 34 | 00290 | 2.Power cables and cable lines | | | | | | | | | | | |
| | | 5. Designing electrical machines | | | | | | | | | | | |
| | 00942 | 1.Semiconductor devices and | 7 | 210 | 135 | 75 | 30 | 30 | 15 | | | S–3 | 5 |
| | 00409 | modeling | | 1 | | | | | | | | | |
| 35 | | 2.Infrared devices and systems | | | | | | | | | | | |
| 55 | 00753 | 3.Introduction to robotics | | | | | | | | | | | |
| | 00151 | 4.Automated electrotechnical | | | | | | | | | | | |
| | | | - | 100 | 4.8.0 | | | | | | | T (| _ |
| | 00387 | 1.Superconducting integrated | 6 | 180 | 120 | 60 | 30 | 15 | 15 | | | F-4 | 4 |
| 36 | | 2. Sensor systems | | | | | | | | | | | |
| 50 | 00785 | 3.Basics of schematic | | | | | | | | | | | |
| | 00853 | engineering | | | | | | | | | | | |
| | 00778 | 1.Industrial electronic devices | 6 | 180 | 105 | 75 | 30 | 15 | 30 | | | F –4 | 5 |
| | 00298 | 2. Protection of electronic | | | | | | | | | | | |
| | | devices and electrical | | | | | | | | | | | |
| 37 | 00207 | equipment 3 Exploitation diagnostics and | | | | | | | | | | | |
| 51 | 00291 | reparation of of electronic | | | | | | | | | | | |
| | | devices and electrical | | | | | | | | | | | |
| | | equipment | | 1 | | | | | | | | | |
| | 00362 | 4.Protection of power systems | | | | | | | | | | | |
| | 00286 | 1. Electricity and | 5 | 150 | 105 | 45 | 30 | 15 | | I T | | S-2 | 3 |
| | 00307 | transformations | | 1 | | | | | | | | | |
| 20 | 00287 | 2. Generation, transmission and distribution of electricity | | 1 | | | | | | | | | |
| 50 | 00166 | 3.Renewable energy sources | | 1 | | | | | | | | | |
| | | and its use | | 1 | | | | | | | | | |
| | 00951 | 4.High voltage technique | | | | | | | | | | | |

| 39 | 00794 00850 00805 | 1.Digital signal processing 2.Artificial intelligence 3.SMART systems | 6 | 180 | 120 | 60 | 30 | 30 | | | F-4 | 4 |
|----|-------------------------|---|----|-----|-----|----|----|----|----|--|-------------|---|
| | 00511 | 1.Quantum electronics and optoelecronics | 6 | 180 | 105 | 75 | 30 | 15 | 30 | | F -4 | 5 |
| 40 | 00408 | 2.Optoelectronic means of information transmission and | | | | | | | | | | |
| | 00653 00651 | 3.Optoelectronic devices 4.Optical communication systems | | | | | | | | | | |
| | | | | | | | | | | | | |
| | Internshi | p and graduate work | 30 | 900 | 900 | | | | | | | |
| 41 | 00861 | Internship | 21 | 630 | 630 | | | | | | S4 | 0 |
| 42 | 00210 | Graduate work | 9 | 270 | 270 | | | | | | S-4 | 0 |

III. TIME ALLOTTED FOR TRAINING

| Academic year | | Credit | | Theoretica (wee | l training ek) | Exam : (We | session eek) | Exper (we | rience eek) | Final att (we | testation eek) | Holiday | |
|------------------|------------------|-----------------------|--|--------------------|-------------------|---------------|-----------------|--------------|----------------|------------------|-------------------|---------|----|
| | | | | | | | | | | | | | |
| Т | F – 1 | 60 | 30 | 30 | 15 | 10 | 5 | | | | | 12 | 2 |
| 1 | S – 1 | 00 | 30 | 50 | 15 | 10 | 5 | | | | | 14 | 10 |
| п | F – 2 | 60 | 30 | 30 | 15 | 10 | 5 | | | | | 12 | 2 |
| 11 | $\mathbf{F}-2$ | UU | 30 | 50 | 15 | 10 | 5 | | | | | 14 | 10 |
| ш | F – 3 | 60 | 30 | 20 | 15 | 10 | 5 | | | | | 12 | 2 |
| 111 | S – 3 | 00 | 30 | 30 | 15 | 10 | 5 | | | | | 12 | 10 |
| IV | $\mathbf{F} - 4$ | 20 + 21x + 0// | 30 | 15 | 15 | 5 | 5 | 14 | | 6 | | 2 | 2 |
| 1 V | S – 4 | $30 + 21^{-} + 9^{-}$ | 21 ^x + 9 ^{//} | 15 | | 5 | | 14 | 14 | 0 | 6 | 2 | |
| Total: | | $210 + 21^{x} + 2$ | 9'' = 240 | 10 | 5 | 3 | 5 | 1 | 4 | (| 5 | 3 | 8 |

| | Practice | Week | Credit | Semester |
|---|-----------------------|------|--------|--------------|
| 1 | Industrial experience | 14 | 21 | S – 4 |

One week of the internship period is 1,5 credits.

| | FINAL ATTESTATION | Week | Credit | Semester |
|---|-------------------------|------|--------|----------|
| 1 | Final state attestation | 6 | 9 | S – 4 |

IS PRESENTED BY:

Vice rector for teaching and training technologies

Director of the educational and methodical center

Dean of the Faculty of "Engineering"

Head of the chair "Engineering and applied sciences"

Assist.prof. G.C. Musayev

assistant professor E.H.Azadov

assistant professor E.A. Samadov

professor R.M.Rzayev