

KHAZAR UNIVERSITY

Computer Science B.S. Program

1st Year

| CODE | Fall Semester | KU | ECTS |
|----------|-------------------------------------|-----------|-----------|
| AZLL 101 | Azerbaijan language | 3 | 6 |
| AZC 202 | Azerbaijan Culture | 2 | 4 |
| CMS 115 | Computer Application in Engineering | 3 | 6 |
| ENGL 101 | English Foundations 1 | 4 | 8 |
| MATH 10 | Calculus 1 | 3 | 6 |
| | ** Social Sciences | 3 | 6 |
| | Credit | 18 | 36 |

| CODE | Spring Semester | KU | ECTS |
|----------|--------------------------------------|-----------|-----------|
| MATH 105 | Calculus 2 | 3 | 6 |
| PHSC 150 | Physics for computer science | 3 | 6 |
| ENGL 102 | English Foundations 2 | 4 | 8 |
| CMS 140 | Fundamentals of Computer programming | 3 | 6 |
| AZH 150 | Azerbaijan History | 3 | 6 |
| | Credit | 16 | 32 |

2nd Year

| CODE | Fall Semester | KU | ECTS |
|----------|-------------------------------------|-----------|-----------|
| MATH 231 | Applied Linear Algebra and Analysis | 3 | 6 |
| CMS 205 | Object Oriented Programming | 3 | 6 |
| CMS 220 | Web & Mobile Programming 1 | 3 | 6 |
| ENGL 216 | ESP Computer Science | 3 | 6 |
| | * Humanity | 3 | 6 |
| | Credit | 15 | 30 |

| CODE | Spring Semester | KU | ECTS |
|----------|--|-----------|-----------|
| CMS 241 | Computer Organization and system programming | 3 | 6 |
| CMS 250 | Web Programming 2 | 3 | 6 |
| MATH 208 | Analytic Geometry | 3 | 6 |
| CMS 215 | Data Structures | 3 | 6 |
| | * Humanity | 3 | 6 |
| | Credit | 15 | 30 |

3rd Year

| CODE | Fall Semester | KU | ECTS |
|----------|--|-----------|-----------|
| MATH 310 | Applied Differential Equations | 3 | 6 |
| MATH 217 | Probability theory and mathematical Statistics | 3 | 6 |
| CMS 309 | Computer Networks | 3 | 6 |
| CMS 336 | Design and Analysis of Modern Algorithms | 3 | 6 |
| CMS 362 | Operating Systems | 3 | 6 |
| CMS 316 | Database Management Systems | 4 | 8 |
| | Credit | 19 | 38 |

| CODE | Spring Semester | KU | ECTS |
|----------|--------------------------------------|-----------|-----------|
| MATH 312 | Introduction to Discrete Mathematics | 3 | 6 |
| MATH 317 | Complex Analysis | 3 | 6 |
| MATH 320 | Numerical Analysis | 3 | 6 |
| | ***Major Electives | 3 | 6 |
| | ** Social Sciences | 3 | 6 |
| | Credit | 15 | 30 |

| CODE | Fall Semester | KU | ECTS |
|------|---------------|----|------|
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| CODE | Summer Semester | KU | ECTS |
|---------|-----------------|----------|-----------|
| CMS 395 | Summer Practice | 6 | 12 |
| | Credit | 6 | 12 |

4th Year

| CODE | Fall Semester | KU | ECTS |
|---------|-------------------------|-----------|-----------|
| CMS 415 | Artificial Intelligence | 3 | 6 |
| MED 315 | Life Sciences | 3 | 6 |
| CMS 451 | Information Security | 3 | 6 |
| | ***Major Electives | 3 | 6 |
| | Credit | 12 | 24 |

| CODE | Spring Semester | KU | ECTS |
|---------|------------------------------------|-----------|-----------|
| CMS 445 | Machine Learning | 3 | 6 |
| CMS 458 | Parallel and distributed computing | 3 | 6 |
| | ***Major Electives | 3 | 6 |
| | ***Major Electives | 3 | 6 |
| | Credit | 12 | 24 |

Total Credit for Graduation 128 256

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|----------|-------------------------------------|----------|--|----------|---|---------------------------|---------------------------------------|-------------|------------|
| | * Humanity | 6 | | | | ***Major Electives | KU | ECTS | |
| FNLG 201 | Foreign language 1 | 3 | | EENG 302 | Signals and Systems | | 3 | 6 | |
| HIST 110 | History of World Civilizations | 3 | | ETR 346 | Telecommunication networks | | 3 | 6 | |
| FNLG 202 | Foreign language 2 | 3 | | CMS 355 | Computer Science Lab Project | | 3 | 6 | |
| PHIL 110 | Introduction to philosophy | 3 | | CMS 430 | Software Engineering | | 3 | 6 | |
| LAW 220 | Family Law | 3 | | CMS 410 | Cisco Certificate Network Administrator 1 | | 3 | 6 | |
| LAW 102 | Law Enforcement Systems | 3 | | CMS 445 | Machine Learning | | 3 | 6 | |
| | ** Social Sciences | 6 | | CMS 425 | Soft Computing | | 3 | 6 | |
| MGT 310 | Management and Organization | 3 | | CMS 510 | Neural Networks | | 3 | 6 | |
| LAW 220 | Family Law | 3 | | CMS 401 | Introduction to Robotics | | 4 | 8 | |
| ECON 101 | Introduction to Economics | 3 | | | | | KU | ECTS | |
| LAW 102 | Law Enforcement Systems | 3 | | | | | University Requirement English | 11 | 22 |
| | | | | | | | University Requirement Azeri | 8 | 16 |
| | | | | | | | Humanity | 6 | 12 |
| | | | | | | | Social Sciences | 6 | 12 |
| | Science and Technology | 9 | | | | | Science and Technology | 9 | 18 |
| MATH 10 | Calculus 1 | 3 | | | | | Major Courses | 88 | 176 |
| CMS 115 | Computer Application in Engineering | 3 | | | | | | | |
| MED 315 | Life Sciences | 3 | | | | | Total | 128 | 256 |