

# BS in Data Science and General Education Requirements – 121 credits

General Education (GE) (13 courses, plus one QS and one SS from core)	DS Major Core (18 courses, 58 credits)	Business Analytics (BA) Track (3 courses +2 Track Electives, 15 credits)		Free Electives (3 courses, 9 credits)					
<u>Foundation Requirements</u> (6 courses, 18 credits) Freshman Seminar I Freshman Seminar II Armenian Language/Literature I Armenian Language/Literature II Armenian History I Armenian History II  <i>All undergraduate students must take these 6 courses</i>	Calculus 1 Calculus 2 Calculus 3 Linear Algebra Data Visualization Discrete Math Probability Statistics 1 Statistics 2 Numerical Analysis Introduction to Computer Science Programming for Data Science Data Structures/Algorithms for Data Science (4) Machine Learning Artificial Intelligence Database Systems Physics & Chemistry in Life Sciences Intro to Business Capstone	<u>Track Requirements (3 courses)</u> Business Intelligence Time Series Forecasting Marketing Analytics  <u>Track Electives (2 courses from following)</u>  <i>Business Data Management</i> <i>Urban Data Science</i> <i>eCommerce</i> <i>Stochastic Modeling</i>	AN D	<i>Any three additional courses offered at AUA</i>					
<u>Quantitative Science Requirements</u> (2 courses, 6 credits, + core course Physics & Chemistry in Life Sciences)  <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center; border: none;"><b>BA Track</b></td> <td style="width: 50%; text-align: center; border: none;"><b>BI Track</b></td> </tr> <tr> <td style="border: none;">                             Two courses coded as GE-QS, as a cluster (<b>in the same QS theme of which one must be an upper division course</b>)                         </td> <td style="border: none;">                             Cell &amp; Molecular Biology                              -----                              + one upper QS course as a cluster (<b>in any QS theme</b>)                         </td> </tr> </table>		<b>BA Track</b>			<b>BI Track</b>	Two courses coded as GE-QS, as a cluster ( <b>in the same QS theme of which one must be an upper division course</b> )	Cell & Molecular Biology ----- + one upper QS course as a cluster ( <b>in any QS theme</b> )	<b>OR</b>	<b>Bioinformatics (BI) Track</b> (3 courses + 2 Track Electives, 15 credits)
<b>BA Track</b>		<b>BI Track</b>							
Two courses coded as GE-QS, as a cluster ( <b>in the same QS theme of which one must be an upper division course</b> )		Cell & Molecular Biology ----- + one upper QS course as a cluster ( <b>in any QS theme</b> )							
<u>Social Science Requirements</u> (2 courses, 6 credits, + core course Intro to Business)  <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center; border: none;"><b>BA Track</b></td> <td style="width: 50%; text-align: center; border: none;"><b>BI Track</b></td> </tr> <tr> <td style="border: none;">                             Business Analytics for Data Science                              -----                              + one upper SS course (<b>in any SS theme</b>)                         </td> <td style="border: none;">                             Two courses coded as GE-SS, as a cluster (<b>in the same SS theme of which one must be an upper division course</b>)                         </td> </tr> </table>	<b>BA Track</b>	<b>BI Track</b>	Business Analytics for Data Science ----- + one upper SS course ( <b>in any SS theme</b> )	Two courses coded as GE-SS, as a cluster ( <b>in the same SS theme of which one must be an upper division course</b> )	<b>AND</b>	<u>Track Requirements (3 courses)</u> Introduction to Bioinformatics Computational Biology Network and Systems Biology  <u>Track Electives (2 courses from following)</u>  <i>Functional Genomics</i> <i>Bioinformatics Algorithms</i> <i>Structural Modeling</i> <i>Biotechnology</i>			
<b>BA Track</b>	<b>BI Track</b>								
Business Analytics for Data Science ----- + one upper SS course ( <b>in any SS theme</b> )	Two courses coded as GE-SS, as a cluster ( <b>in the same SS theme of which one must be an upper division course</b> )								

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<p style="text-align: center;"><u>Arts &amp; Humanities Requirements</u> (3 courses, 9 credits)</p> <p>Three courses coded as GE-AH, as a cluster, at least one of which must be upper division</p>					
<p style="text-align: center;"><u>Physical Education, First Aid, and Civil Defense Requirements</u></p> <p>FND 110 Physical Education – Four (4) semesters in the first two years            FND 152 First Aid – One course. First semester.            FND 153 Civil Defense One course. First semester.</p> <p>For complete information about AUA’s General Education program visit <a href="http://aua.am/gen-ed/">http://aua.am/gen-ed/</a></p>					