## Science for Health Professions Associate in Science in Science for Health Professions Bachelor of Science in Biology DCCC Penn Sate First Semester First Semester ENG 100 English Composition I Rhetoric and Composition 3 ENGL 15 3 BIO 110 or Biology: Basic Concepts and **BIO 150** Recommend BIO 110 General Biology I<sup>1</sup> **BIOL 110** Biodiversity 4 CHE 101 or Chemical Principles I & Experimental Recommend CHE 110 General Chemistry I CHEM 110 and 111 **CHE 110** Chemistry I 4 **Mathematics Elective** Recommend MAT 160 Calculus I 4 **MATH 140** Calculus with Analytic Geometry I 4 15 15 Second Semester Second Semester **English Composition II: Writing About ENG 112** Literature 3 ENGL 101 Introduction to Literature 3 COMM 100 or Interpersonal Communication or CAS 203 or Interpersonal Communication or **COMM 111 Recommend Public Speaking** CAS 100 3 3 Effective Speech Mathematics Required **Elective Recommend MAT 161 Calculus II MATH 141** Calculus with Analytical Geometry II 4 Laboratory Science Chemical Principles II & Experimental Required Elective Recommend CHE 111 General Chemistry II CHEM 112 and 113 Chemistry II 4 Any transferable **Diversity and Social** Justice and Global Understanding designed Social Science or Humanities **Recommend HUM 121 Myth or** SOC HUM 150 or World Myth or course 210 Cultural Anthropology ANTH 45 **Cultural Diversity** 3 16 - 17 17 Third Semester Third Semester DPR 100 or Introduction to Information Technology or MIS SFR 100 or **DPR 101** Introduction to Computer Science CMPSC XFR 100 Elective Mathemtics/Science Required Elective Recommend CHE 200 Organic Chemistry I **CHEM 210** Organic Chemistry I 4 **Laboratory Science Required Elective** Recommend PHY 110 College Physics I **PHYS 250** Introductory Physics I Social Science Elective 3 Dependent upon course selection **Humanities Elective** 3 Dependent upon course selection 17 14 - 17 Fourth Semester Fourth Semester Mathematics/Science Required Elective Recommend PHY 111 College Physics II 4 **PHYS 251** Introductory Physics II 3 Mathematics/Science Required Elective Recommend CHE 201 Organic Chemistry II CHEM 212 and 213 Organic Chemistry II and Lab 3 Social Science Elective Dependent upon course selection 4 3 **Open Elective** Recommend BIO 1111 3 Dependent upon course selection 4 Open Elective 3 Dependent upon course selection 3 - 4 17 14 - 15 **Total Credits Total Credits:** 60 - 67 66