Chemistry Major Requirements (48) Foundation Courses Notes 1. Some courses appear in more than one □ CHEM 101 - Introductory University Chemistry I requirement. Students may not use the ☐ CHEM 102 - Introductory University Chemistry II same course to satisfy more than one requirement. **Senior Courses** 2. CHEM 299 can be taken twice; CHEM 399 can be taken up to four times. ☐ CHEM 211 - Quantitative Analysis I CHEM 241 - Introduction to Inorganic Chemistry CHEM 261 - Organic Chemistry I ☐ CHEM 263 - Organic Chemistry II 24 units from: Any of the following courses: (with no more than 6 units total from CHEM 299, CHEM 300, CHEM 399, CHEM 401, CHEM 403, and CHEM 499): BIOCH 200 - Introductory Biochemistry BIOCH 310 - Bioenergetics and Metabolism BIOCH 320 - Structure and Catalysis BIOCH 330 - Nucleic Acids and Molecular Biology CHEM 213 - Quantitative Analysis II CHEM 282 - Atomic and Molecular Structure CHEM 299 - Research Opportunity Program in Chemistry CHEM 300 - Introduction to Industrial Chemistry CHEM 303 - Environmental Chemistry I CHEM 305 - Environmental Chemistry II CHEM 306 - Green Chemistry CHEM 313 - Instrumentation in Chemical Analysis CHEM 333 - Inorganic Materials Chemistry CHEM 343 - Advanced Inorganic Chemistry CHEM 351 - Introduction to Chemical Biology CHEM 361 - Organic Chemistry CHEM 371 - Energetics of Chemical Reactions CHEM 373 - Physical Properties and Dynamics of Chemical Systems CHEM 398 - Molecular Spectroscopy CHEM 399 - Research Experience in Chemistry CHEM 401 - Introduction to Chemical Research CHEM 403 - Chemical Research CHEM 405 - Special Topics in Chemistry CHEM 424 - Optical Spectroscopy and Electrochemistry CHEM 425 - Separations and Mass Spectrometry CHEM 434 - X-ray Crystallography CHEM 436 - Synthesis and Applications of Inorganic and Nano-materials CHEM 437 - Transition Metal Chemistry CHEM 438 - Solid State Chemistry CHEM 443 - Asymmetric Catalysis CHEM 444 - Characterization Methods in Nanoscience CHEM 451 - Chemical Biology CHEM 454 - Bioconjugate Chemistry CHEM 460 - Contemporary Organic Chemistry CHEM 461 - Qualitative Organic Analysis ☐ COMM CHEM 462 - Physical Organic Chemistry □ COMM CHEM 463 - Organic Synthesis CHEM 477 - Molecular Symmetry and Spectroscopy □ IND CHEM 479 - Molecular Kinetics □ во CHEM 493 - Computational Chemistry □ BO___ CHEM 495 - Molecular Dynamics and its Applications CHEM 499 - Advanced Chemical Research and Training □ BSBS \sqcap BSFS 6 units from: **BSSS** CHEM at the 400-level J LAB