

Additional Course and Program Information for CUE REPORT

A. List by Department/School of Proposed New Courses and Course Updates Approved by CUE

1. BIOLOGY

- (a) New course, Biol 463: Dynamical Principles in Systems Biology

2. COMPUTING SCIENCE

- (a) Change in prerequisites for CS 356 and CS 357

3. CHEMICAL MECHANICAL ENGINEERING

- (a) Credit and/or prerequisite changes for CHE 210, CHE 360, CHE 460, CHE 472, CHE 495, CHE 496
- (b) title, credit, content, and delivery updates to CHE 365

4. ENGINEERING TECHNOLOGY

- (a) New course, MIT 231: Introduction to Computer Security: Medical Devices and Systems

B. List of Proposed Course Credit Changes to the Following Undergraduate Programs Organized by Department or School

1. Chemistry and Environmental Science

- (a) B.S. in Biochemistry
 - i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. Introductory biology courses updated to reflect new NJIT offerings
 - iii. Courses rearranged to balance student load and reflect current offering patterns
 - iv. Program now requires 122 credits
- (b) B.S. in Chemistry
 - i. Eliminate 8 credits of social sciences and PE to reflect new GER; a free elective (with MGMT 390 recommended) is added to meet minimum credit requirements
 - ii. Courses rearranged to balance student load and reflect current offering patterns
 - iii. Program now requires 120 credits
- (c) B.S. in Environmental Science
 - i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. Introductory biology courses updated to reflect new NJIT offerings

- iii. Upper level Rutgers biology course replaced with choice of two alternative NJIT biology courses
- iv. Upper level Rutgers biology course replaced with NJIT EVSC course yielding a 1 credit reduction
- v. Technical elective credit requirement reduced by 1 credit
- vi. Biol 205 and 206 added to program (4 credits)
- vii. EVSC 381 added to program (3 credits)
- viii. Program now requires 125 credits

2. Engineering Technology

- (a) B.S. in Concrete Industry Management
 - i. Eliminate 5 credits of social sciences and PE to reflect new GER
 - ii. Eliminate 3 credit accounting course
 - iii. Courses rearranged to balance student load
 - iv. Program requires 120 credits
- (b) B.S. in ET, Technology Education
 - i. Eliminate 5 credits of management and PE to reflect new GER
 - ii. Eliminate 3 credits of technical electives
 - iii. Eliminate 3 credit 300 level STS course (omitted from current catalog)
 - iv. Adds credits for "Supervised Teaching"
 - v. Courses rearranged to balance student load
 - vi. Students can now complete program in 4 years
 - vii. Program now requires 126 credits
- (c) B.S. in ET, Construction Engineering Technology
 - i. Eliminate 5 credits of social sciences and PE to reflect new GER
 - ii. Courses rearrange to balance student load
 - iii. Program now requires 126 credits
- (d) B.S. in ET, Computer Technology
 - i. Eliminate 5 credits of social sciences and PE to reflect new GER
 - ii. Eliminate MIS 245, MRKT 330, MRKT 360 or MGMT 480, Math 112 or Math 346 or Technical Elective, OM 375, CPT 450, and MNET 315 or Fin 415; add IT 230, MGMT 390, CPT 373, CPT 325 or MIT 360, and CPT 425 or MIT 362
 - iii. Program now requires 124 credits
- (e) B.S. in ET, Electrical and Computer Engineering Technology
 - i. Eliminate 2 credits of PE to reflect new GER
 - ii. Rearrangement of courses to reflect 1 semester senior project (credits unchanged from previous 2 semester version of senior project)
 - iii. Program now requires 127 credits
- (f) B.S. in ET, Mechanical Engineering Technology
 - i. Eliminate 5 credits of social sciences and PE to reflect new GER

- ii. Rearrangement of courses to reflect 1 semester senior project (credits unchanged from previous 2 semester version of senior project)
 - iii. Courses added to list of recommended technical electives
 - iv. Program now requires 123 credits
- (g) B.S. in ET, Medical Informatics Technology
 - i. Eliminate 5 credits of social sciences and PE to reflect new GER
 - ii. Program now requires 123 credits
- (h) B.S. in ET, Manufacturing Engineering Technology
 - i. Eliminate 5 credits of social sciences and PE to reflect new GER
 - ii. Program now requires 125 credits
- (i) B.S. in ET, Surveying Engineering Technology
 - i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. Update course credit counts to reflect changes from 2014
 - iii. Make SET 280 a required course rather than a technical elective
 - iv. Program now requires 123 credits

C. List of Proposed Course Credit Changes to the Following Undergraduate Programs Organized by Department or School

1. Chemistry and Environmental Science

- (a) B.S. in Civil Engineering
 - i. New 5 year (co-op) versions of curriculum

2. Engineering Technology

- (a) B.S. in Applied Physics (Astronomy and Astrophysics Option and Optical Science and Engineering Option)
 - i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. Added 2 free electives
 - iii. Courses rearranged to balance student load and reflect current offering patterns
 - iv. Programs requires 126 credits each
- (b) B.S. in Applied Physics/Applied Mathematics (double major)
 - i. Eliminate 8 credits of management and PE to reflect new GER
 - ii. Courses rearranged to balance student load and reflect current offering patterns
 - iii. Program now requires 122 credits

3. Biology

- (a) B.S. in Biology
 - i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. Updated chemistry laboratory requirements
 - iii. Recommendation given for math cognate course and one technical elective

- iv. Courses rearranged to balance student load and reflect current offering patterns
 - v. Program now requires 123 credits
- (b) B.A. in Biology
- i. Program now has 4 specified concentrations: Cell biology, ecology and evolution, neurobiology, and general biology
 - ii. Eliminate 8 credits of social sciences and PE to reflect new GER
 - iii. Updated chemistry laboratory requirements
 - iv. Technical elective added to maintain minimum credit requirements
 - v. Courses rearranged to balance student load and reflect current offering patterns
 - vi. Program now requires 120 credits in each concentration

4. Biomedical Engineering

- (a) B.S. in Biomedical Engineering--Prehealth track
- i. Program adds 5 credits of courses required by medical schools to the existing biomaterials track in major, which has previously been reduced by 8 credits to reflect the new GER
 - ii. Program now requires 131 credits for prehealth biomaterials track
- (b) B.S. in Biomedical Engineering--Accelerated prehealth track
- i. Eliminate BME 102 (1 credit) from program previously updated to reflect new GER
 - ii. Program now requires 125 credits

5. Engineering Technology

- (a) B.S. in Engineering Technology, Construction Management Technology
- i. Eliminate 5 credits of social sciences and PE to reflect new GER
 - ii. Eliminate 3 credits of technical electives
 - iii. Course rearranged to balance student load and reflect current offering patterns
 - iv. Program now requires 126 credits
- (b) B.S. in Computer Science/Applied Mathematics (double major)
- i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. Math elective replaces required math course
 - iii. Courses rearranged to balance student load and reflect current offering patterns
 - iv. Program now requires 127 credits
- (c) B.S. in Computer Science/Computational Mathematics (double major)
- i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. Courses rearranged to balance student load and reflect current offering patterns
 - iii. Program now requires 127 credits

- (d) B.S. in Computer Science/Applied Physics (double major)
- i. Eliminate 8 credits of social sciences and PE to reflect new GER
 - ii. CS 356 added as a required course
 - iii. Courses rearranged to balance student load and reflect current offering patterns
 - iv. Program now requires 133 credits