

**ARTICULATION AGREEMENT
BETWEEN
NEW JERSEY INSTITUTE OF TECHNOLOGY
AND
BERGEN COMMUNITY COLLEGE**

This Articulation Agreement ("Agreement"), effective as of July 1, 2016 ("Effective Date"), by and between **Bergen Community College** ("BCC") and **New Jersey Institute of Technology** ("NJIT"), connects students in BCC's Associate in Applied Sciences ("A.A.S.") and Associate in Science ("A.S.") degree programs to various Bachelor of Science or Bachelor of Arts (collectively "BS/BA Degree") programs offered at NJIT. These connected degree programs enable students to complete their A.A.S. or A.S. degrees at BCC and then transfer to a variety of four-year programs at NJIT towards completion of their BS/BA Degree.

WHEREAS, BCC and NJIT are both accredited institutions of higher education and generally accept for transfer purposes credits earned by students at the other institution and each party desires to establish a protocol to facilitate the transfer of credits earned by students in the BCC A.A.S. and A.S. (collectively "Associate Degree") programs into the BS/BA Degree programs of NJIT on a non-exclusive basis and pursuant to the following terms and provisions.

WHEREAS, BCC and NJIT are authorized by law to enter into this Agreement pursuant to N.J.S.A. 18A:64A-12j, N.J.S.A. 18A:64A-25.1, et seq. and N.J.S.A. 18A:64E-12, et seq. respectively, and upon the authorization of their Board of Trustees to the extent required.

WHEREAS, performance of this Agreement shall be in full compliance with the State of New Jersey's Transfer Policy of September 2007, and the Comprehensive Statewide Transfer Agreement.

WHEREAS, the purpose of this Agreement is to provide students with an opportunity to plan their total baccalaureate experience at the beginning of their college education, to provide students with a seamless transition and to minimize duplicate coursework and to facilitate the recruitment of students into programs offered by both institutions.

WHEREAS, the successful implementation of this Agreement depends upon communication of its contents to all involved participants, and assumptions of responsibility by both institutions for such communication. Annual periodic reviews and updates are essential to ensuring a seamless transfer curriculum. Programmatic changes by either institution will necessitate amendments to this Agreement as appropriate.

The Connected Degree Curriculums

The BCC Associate Degree programs consist of two-year preparatory curriculums for students who plan on transferring to bachelor degree programs offered by major institutions such as NJIT. The A.A.S. and A.S. curriculums at BCC provide students with a strong foundation in their corresponding fields along with problem-solving experience and communication skills.

The BS/BA Degree programs at NJIT prepare graduates to enter various professions in several areas, including Information Technology, Computer Science, Engineering, Mathematics, Architecture and Design, and Management, as further described in Appendix A attached hereto. Graduates may be employed in industry,

government, or academia. Additionally, graduates will be prepared to pursue graduate studies, should they choose to do so.

The lower division general education credits earned by BCC graduates (or BCC students who have not yet completed their A.A.S. or A.S. degrees) shall be applied toward the general education core (known as General University Requirements or GUR) at NJIT. The guide sheets attached hereto as Appendix B provide course equivalencies for twenty two (22) BS/BA Degree programs at NJIT. BCC courses taken outside the A.A.S. and A.S. curriculums will be evaluated for transfer on an individual student basis.

BCC and NJIT will develop and maintain accurate, up-to-date course equivalency listings for BCC's Associate Degree programs and the BS/BA Degree programs at NJIT (which will be posted on the NJIT Transfer System and Transfer Website). The institutions may expand these connected degree programs from time-to-time as agreed upon by the institutions in a written amendment/further appendix to this Agreement.

It is expected that a graduate of BCC will be able to complete his/her BS/BA Degree requirements within two and a half years full-time study at NJIT, assuming successful completion of each of the BCC transfer courses listed in Appendix B and the remaining courses listed in the NJIT undergraduate degree catalog for the corresponding major of choice.

Each institution will assign an appropriate number of staff persons to serve as liaisons to assure on-going communication between the two institutions. At least once a year, each institution's involved faculty and administrative staff will meet to discuss curriculum and other program details. Proposed changes in curriculum by either institution will be addressed to ensure that they are acceptable to the other and that they will not cause unnecessary difficulty for students seeking transfer.

Transfer Guidelines

The purpose of this Agreement is to facilitate BCC students who transfer to NJIT to carry with them the credit they have already earned for as much relevant study as possible. Any BCC student who is admissible to NJIT may transfer credits designated in the attached Appendix B subject to the following terms and conditions:

- a. The BCC student must have completed his/her work at BCC in good academic, behavioral and financial standing and have a minimum cumulative Grade Point Average ("GPA") at the time of transfer of 2.5 or above, depending on the major of choice and whether he/she completed his/her A.A.S. or A.S. degree requirements. For instance, a BCC transfer applicant to the NJIT Ying Wu College of Computing Sciences in an Information Technology, Information Systems or Computer Science major who has completed a BCC A.S. degree, as specified in Appendix B, with an overall GPA of 2.8 or above will be accepted for transfer. A BCC transfer applicant for these same Bachelor of Science degree programs who has not completed a designated A.S. degree will be accepted if he/she has a GPA of at least 3.5 on computing courses (specified for transfer by the Ying Wu College of Computing Sciences) and an overall GPA of at least 2.8.
- b. BCC students will go through NJIT's transfer process and therefore must meet all applicable requirements and deadlines pertaining to application for admission, orientation and registration, and payment of tuition and fees. They will abide by the policies and procedures, along with any revisions thereof that apply to all NJIT students.
- c. Only courses in which the BCC student earned a grade of "C" or above and which were applicable toward the BS/BA Degree programs at NJIT (Appendix B) will be considered for acceptance by NJIT.
- d. The BCC student must otherwise meet the admissions standards and comply with the admissions procedures of NJIT. All determinations that a BCC student has satisfied the prerequisites for admission, and the application of credit to the BS/BA Degree programs shall be made in the sole discretion of NJIT.

- e. NJIT reserves the right to deny admission and/or the granting of transfer credit for courses completed with respect to any person whose participation in the BS/BA Degree programs imposes an undue risk of harm to him/herself or others or the property of NJIT or others, or if the person is determined to have submitted false or misleading credentials, to have participated in academic dishonesty, fraud or misrepresentation in any courses, or is otherwise determined to be ineligible for participation in the BS/BA Degree programs.
- f. BCC agrees that NJIT shall have sole and final authority and oversight with respect to all academic matters regarding NJIT's degree programs, including but not limited to admission and registration processes, tuition and fees (including increases and in-state/out-of-state rate determinations), conferring of degrees and maintenance of all of its own official student educational records.

Responsibilities of Institutions

Each institution shall be solely responsible for establishing, collecting and retaining tuition from students enrolled in any of its own degree programs. The intent of the institutions is that neither shall receive any compensation from the other under this Agreement and there will be no tuition or revenue sharing of any kind. Neither institution shall have any financial obligation to the other institution under this Agreement.

To the extent allowable by applicable law, each institution hereby assumes any and all risks of personal injury, property damage and third party claims attributable to the negligent acts or omissions of that institution and the officers, employees and agents thereof.

Except with respect to the articulation protocol established in this Agreement, BCC students must comply with and will be bound by the standards, policies, guidelines and regulations of NJIT in effect at the time of their application for admission to NJIT and during their enrollment at the same.

This Agreement is not intended to and shall not be so construed as to create any independent rights in any students of BCC nor include BCC students as parties hereto.

During the term of this Agreement, each institution hereby grants to the other institution a non-exclusive and non-transferable right, to use and display the other institution's name and/or logos in print publications in connection with the promotion and implementation of this Agreement. All promotional and/or marketing materials created or used by either institution will be pre-approved by the other institution prior to dissemination; such approval not to be unreasonably withheld. NJIT will provide BCC with information packets for transfer admissions. BCC will provide its students with information about transferring to NJIT, including the list of course equivalencies pertaining to this Agreement.

Unless authorized by NJIT, BCC will not make any representations or offer any guarantees to prospective BCC students about the likelihood of awards of financial aid or scholarships or student employment at NJIT. BCC students transferring to NJIT will be treated the same as other continuing NJIT students and of equal class standing when applying for financial aid and in the distribution of available funds.

Compliance

Implementation and interpretation of this Agreement will be consistent with and subject to all applicable and mandatory approvals, policies and procedures established by the appropriate accreditation bodies, including Middle States Commission on Higher Education, the New Jersey Secretary of Higher Education, the United States Department of Education, and other agencies that have jurisdiction over the operation of either institution. BCC and NJIT are responsible for identifying and communicating to each other any change in the policies or requirements of their respective institutions that affect this Agreement. The appropriate individuals at each institution will review and consider such changes upon request and to the extent required, adjust the programs accordingly.

Participation of BCC students under the articulation protocol established in this Agreement will be permitted in compliance with applicable federal, state, and local non-discrimination laws and regulations. The parties shall comply with all applicable laws and shall not discriminate against any person or group of persons on the basis of race, color, creed, sex, age, national origin, ancestry, religion, marital status, disability, sexual orientation, gender identity or expression, pregnancy, genetic information, domestic partnership or civil union status, atypical hereditary cellular or blood trait, AIDS and/or HIV status, genetic information, service in the Armed Forces of the United States, status as a disabled veteran or as a veteran of the Vietnam era or any other protected category under Federal or State of New Jersey law.

Both institutions shall maintain their respective individual accreditation and this Agreement shall be binding only so long as that accreditation is maintained by both institutions.

Both institutions recognize that they are bound to comply with the Family Educational Rights and Privacy Act of 1974 ("FERPA"), as it may be amended from time to time, in the handling of educational records of students enrolled in their institutions. The parties may possess and come to possess confidential student records that have been created, discovered or developed in the course of the programs. Each party shall keep confidential all such student records and information and will not without the prior written consent of the other party use for its benefit or disclose at any time, except to the extent required by the performance of this Agreement or by law, any such information. Each institution shall share student information with the other in accordance with FERPA and any applicable state and local laws, including any regulations of the institutions' regional accrediting association Middle States Commission on Higher Education. Nothing contained herein shall limit the discretion of each institution to execute this Agreement, in accordance with its own educational policies, criteria and standards.

General Provisions

This Agreement may not be assigned or delegated by either institution without the further written consent of the other institution.

Each institution acknowledges and agrees that the relationship with each other is that of independent contractors, and this Agreement shall not be construed to create a partnership, joint venture or agency relationship between BCC and NJIT.

This Agreement shall not be amended or modified except by written agreement of the institutions.

This Agreement represents the entire agreement between the institutions with respect to the subject matter and supersedes all prior negotiations, representations and/or agreements, between the institutions relating to the subject matter of this Agreement. This Agreement shall have retroactive application to any BCC student covered under a prior articulation agreement between the institutions.

This Agreement shall be governed, construed and interpreted in accordance with the laws of the State of New Jersey as it applies to contracts made and performed in New Jersey without regard to its conflicts of laws principles and rules. In the event of a dispute, the institutions shall firstly attempt to settle it by negotiation within thirty (30) days before any other action is taken. The Superior Court of the State of New Jersey shall have jurisdiction to hear and determine any claim or disputes pertaining directly or indirectly to this Agreement or to any matter arising therefrom. Each of the parties hereby expressly submits and consents in advance to such jurisdiction in any action or proceeding commenced by the other in such court.

Neither institution shall have any liability to the other for consequential, exemplary, special, incidental or punitive damages even if advised of the possibility of such damages, including without limitation lost profits and opportunity.

Except as otherwise contained herein, each institution disclaims all warranties and representations, either express or implied, with respect to its programs and/or any courses or services to be provided hereunder.

Both institutions recognize that the proprietary information and/or materials of each institution shall remain the property of that institution throughout and subsequent to this Agreement.

If the performance of any obligation under this Agreement on the part of either institution should be prevented or delayed by an event of force majeure beyond its reasonable control, including but not limited to acts of war, revolution, insurrection, terrorism, civil unrest, strikes or work stoppages, fire, flood, earthquake or other natural disaster, then the affected institution's duty to perform its obligations under this Agreement shall be excused as reasonably required or justified by the circumstances, and this Agreement may be terminated upon the written request of either institution.

This Agreement shall be deemed to have been drafted jointly by counsel for their respective parties hereto, and there shall be no inference drawn against any party as a result of their participation in the drafting of this Agreement.

In the event that any provision of this Agreement shall, for any reason, be determined to be invalid, illegal, or unenforceable in any respect, the parties hereto shall negotiate in good faith and agree to such amendments, modifications, or supplements of, or to this Agreement, or such other appropriate actions as shall, to the maximum extent practicable in light of such determination, implement and give effect to the intentions of the parties as reflected herein. All other provisions of the Agreement shall remain in full force and effect.

It is understood and agreed that nothing which is contained in this Agreement shall be construed as a waiver on the part of the parties, or of any right which is not explicitly waived in this Agreement. A party's waiver of a breach of any term of this Agreement shall not constitute a waiver of any subsequent breach of the same or another terms contained in this Agreement. A party's subsequent acceptance of performance by the other party shall not be construed as a waiver of a preceding breach of this Agreement other than failure to perform the particular duties so accepted.

This Agreement may be executed in any number of counterparts, which taken together, shall constitute but one instrument. It is not necessary that all parties sign all or any one of the counterparts, but each party must sign at least one counterpart for the Agreement to be effective.

Longevity of this Agreement and Termination

This Agreement shall continue from the Effective Date of July 1, 2016 for a period not to exceed twenty-four (24) months, unless and until it is discontinued by either institution for convenience by submitting written notification to the other institution at least ninety (90) days before the end of any semester in NJIT's school year in order to protect all students transferring between the institutions. Such early termination notice shall be effective for the upcoming semester and without further liability or obligation to the other institution. With respect to BCC, the parties agree that the term of this Agreement shall comply with the County Colleges Contract Law, N.J.S.A. 18A:64A-25.1, et seq.

In the event of a breach or default of any material term or condition of this Agreement by either party, the non-defaulting party shall promptly notify the other Party, in writing, of the alleged breach and the other party shall promptly take all reasonable steps necessary to cure the alleged breach. If, after a period of thirty (30) days, the party to whom the written notice of breach was sent has not cured or taken reasonable steps to cure the alleged breach, or otherwise remedied the situation to the reasonable satisfaction of the non-defaulting party, the non-defaulting party may suspend its performance under the Agreement in whole or in part, or immediately terminate the Agreement as it deems appropriate under the circumstances.

In the event that this Agreement is terminated early for any reason, NJIT commits that it shall make a good faith effort to formulate a "teach-out" plan applicable to all then enrolled BCC students that will permit the programs then in progress to run to completion for the sake of the student participants in order for them to complete all remaining degree requirements, including permitting such affected students to pursue transfer to NJIT under the articulation protocols established herein. The institutions agree that any early termination shall be made through a consultative process with one another.

Notices

Whenever written notice is required or permitted to be given by one party to the other, it shall be deemed to be sufficiently given three (3) days after deposit in the United States mail with the proper postage affixed by certified mail, return requested, or nationally recognized courier subject to confirmation of receipt, as follows:

For BCC

William Mullaney, Ph. D.
Vice President of Academic Affairs
Bergen Community College
400 Paramus Road
Paramus, NJ 07652

For NJIT

Fadi P. Deek, Ph.D.
Provost and Senior Executive Vice President
New Jersey Institute of Technology
University Heights
Newark, NJ 07102-1982

Indemnification

To the extent permitted by the laws of the State of New Jersey, NJIT agrees to defend, indemnify and hold harmless BCC and its directors, trustees, officers and employees from and against any and all third party claims, liabilities, damages, losses and expenses to the extent caused by NJIT's negligent acts, errors, intentional acts or omissions and/or by its employees or agents in the performance of NJIT's responsibilities under this Agreement.

To the extent permitted by the laws of the State of New Jersey, BCC agrees to defend, indemnify and hold harmless NJIT and its directors, trustees, officers and employees from and against any and all third party claims, liabilities, damages, losses and expenses to the extent caused by BCC's negligent acts, errors, intentional acts or omissions and/or by its employees or agents in the performance of BCC's responsibilities under this Agreement.

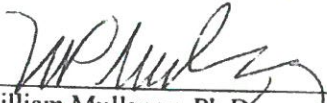
Each party agrees that it shall give the other Party prompt notice of any claim, threatened or made, or suit instituted against it that could result in a claim for indemnification above. Both parties agree that in the event that indemnification is sought under this provision, the party seeking indemnification shall furnish the indemnifying party, upon request, all information and assistance available to the indemnified party for defense against any such claim, suit, or demand.

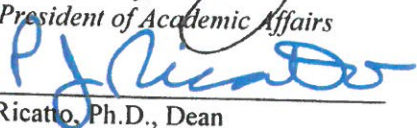
Nothing contained in this section shall be deemed an express or implied waiver of any defense of tort or sovereign immunity on the part of either institution.

Signatures


The undersigned represent that they have the requisite authority to sign this Agreement on behalf of their respective institutions. The institutions have duly executed and delivered this Agreement as of the dates set forth below.

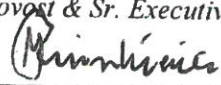
Bergen Community College



William Mullaney, Ph.D.
Vice President of Academic Affairs

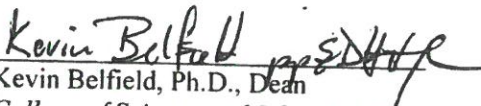

P. J. Ricatto, Ph.D., Dean
Math, Science, & Technology

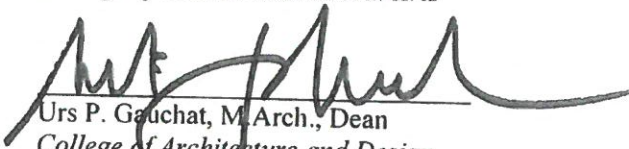
New Jersey Institute of Technology



Fadi Deek, Ph.D.
Provost & Sr. Executive Vice President


Marek Rusinkiewicz, Ph.D., Dean
College of Computing Sciences


Moshe Kam, Ph.D., PE, Dean
College of Engineering


Kevin Belfield, Ph.D., Dean
College of Science and Liberal Arts


Urs P. Gauchat, M. Arch., Dean
College of Architecture and Design


Reggie J. Caudill, Ph.D., Dean
School of Management

APPENDIX A

NJIT – College of Computing Sciences

B.S. Information Technology –

A.A.S. Software Development – Game Testing

A.A.S. Software Development – Game Programming

A.A.S. Information Technology – Database Programming & Administration

A.A.S. Information Technology – Web Development & Management

A.A.S. Information Technology – Networking Administration

B.S. Computer Science –

A.S. Natural Sciences or Mathematics – Computer Science Option

NJIT – Newark College of Engineering

B.S. Chemical Engineering – A.S. Engineering Science

B.S. Civil Engineering – A.S. Engineering Science

B.S. Computer Engineering – A.S. Engineering Science

B.S. Electrical Engineering – A.S. Engineering Science

B.S. Mechanical Engineering – A.S. Engineering Science

B.S. Engineering Technology, Computer Technology – ALL In Progress

A.A.S. Software Development – Game Testing

A.A.S. Software Development – Game Programming

A.A.S. Information Technology – Database Programming & Administration

A.A.S. Information Technology – Web Development & Management

A.A.S. Information Technology – Networking Administration

B.S. Engineering Technology, Medical Informatics – In Progress

A.A.S. Medical Informatics

NJIT – College of Science and Liberal Arts

B.S. Biology - A.S. Natural Science or Mathematics – Biology Option

B.A. Biology – A.S. Natural Science or Mathematics – Biology Option

B.S. Applied Mathematics – A.S. Natural Science or Mathematics – Mathematics Option

NJIT – College of Architecture and Design

See Addendum (JC/SV) 8-10-16

NJIT – School of Management

B.S. Business - A.S. Business Administration – General Option

APPENDIX B

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Software Development – Game Testing		B.S. Information Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
GAM 110 Intro to Game Architecture and Design	3	CS 276 2D Game Development	3
GAM 111 Game Programming 2D	3	IT 1XX Elective	3
INF 101 Introduction to Information Technology	3	IT 101 Intro to Information Technology	3
Introductory Programming Elective *	3	See List*	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking	3
Humanities/Social Science Elective	3	HUM 211/HUM212/HIST 213	3
Second Semester (16 credits)		Second Semester (16 credits)	
GAM 211 Game Development 2D	3	IT 265 Game Architecture and Design	3
INF 140 Introduction to Multimedia	3	IT 1xx Elective	3
Advanced Programming Elective (CIS 265)	3	CS 115 Intro to CS I with C++	3
Math Elective (Math 280 or 223)	4	Math 111 or Math 138	4
WRT 201 English Composition II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking or ENG 352 Technical Writing	3
Third Semester (15 credits)		Third Semester (15 credits)	
GAM 221 Game Programming 3D	3	CS 366 3D Game Development	3
INF 130 Testing & Quality Assurance	3	IT 2XX Elective	3
INF 230 Advanced Multimedia	3	IT 2XX Elective	3
INF 217 Database for Applications	3	IS 331	3
INF 253 Technical Communications	3	General 1XX Elective	3
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
GAM 222 Game Development 3D	3	IT 286 Foundation of Game Productions	3
**INF Restricted Elective	3	See List Below **	3
PHY 186 General Physics I	4	PHY 102/102A General Physics + Lab	4
Writing/Humanities Restricted Elective	3	Free Elective	3
Humanities or Social Science Elective	3	Social Science Elective	3
TOTAL		TOTAL	
	66		66

*CIS 165 = Lower General Elective, INF 145 = IT 2xx Elective, INF 253 = General 1xx Elective

**INF160=IT120, IN239 = IT 2xx, or INF146 = IS 117

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Software Development – Game Programming		B.S. Information Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
CIS 165 Fundamentals of Programming	3	Lower General Elective	3
GAM 110 Intro to Game Architecture and Design	3	CS 276 2D Game Development	3
GAM 111 Game Programming 2D	3	IT 1XX Elective	3
INF 101 Introduction to Information Technology	3	IT 101 Intro to Information Technology	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking	3
Humanities/Social Science Elective	3	HUM 211/HUM212/HIST 213	3
Second Semester (16 credits)		Second Semester (13 credits)	
CIS 265 Advanced Programming Concepts	3	CS 113 Introduction to Computer Science	3
GAM 211 Game Development 2D	3	IT 265 Game Architecture and Design	3
INF 140 Introduction to Multimedia	3	IT 1xx (or multimedia specialization)	3
Math Elective (Math 280 or 223)	4	Math 111 or Math 138	4
WRT 201 English Composition II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking or ENG 352 Technical Writing	3
Third Semester (16 credits)		Third Semester (16 credits)	
CIS 277 Data Structures and Algorithms	3	CS 114 Introduction to Computer Science II	3
GAM 221 Game Programming 3D	3	CS 366 3D Game Development	3
INF 130 Testing & Quality Assurance	3	IT 2XX Elective	3
INF 230 Advanced Multimedia	3	IT 2XX Elective	3
Math 286 or CIS 288	4	Math 337 or Math 226	4
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
GAM 222 Game Development 3D	3	IT 286 Foundation of Game Productions	3
*INF Restricted Elective	3	IS 331 or IS 117	3
PHY 186 General Physics I	4	PHY 102/102A General Physics + Lab	4
Writing/Humanities Restricted Elective	3	Free Elective	3
Humanities or Social Science Elective	3	Humanities or Social Science Elective (Social Science preferred)	3
TOTAL	66	TOTAL	66

Effective Fall 2015

* INF 217 = IS 331

* INF 146 = IS 117

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Information Technology - Database Programming and Administration		B.S. Information Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
BUS 101 Introduction to Business	3	MGMT 190 (Free Elective)	3
INF 101 Intro to Information Technology	3	IT 101 Intro to Information Technology	3
INF ... Programming Language Fundamentals elective	3	INF 153 = CS 113 (preferred) INF 145= IT 2XX	3
INF 150 Business Programming Logic	3	IT 1XX Elective	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking	3
Humanities or Social Sciences Elective	3	HUM 211/HUM 212/HIST 213	3
Second Semester (15 credits)		Second Semester (12 credits)	
INF ... Advanced Programming Language elective*	3	*See below	3
INF 114 Microsoft Office	3	Not Applicable	-
INF 146 Web Development	3	IS 117	3
WRT 201 English Comp II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking or Eng 352 Technical Writing	3
Humanities or Social Science elective	3	Humanities or Social Science Elective	3
Third Semester (15-16 credits)		Third Semester (15-16 credits)	
INF 160 Networking Technologies and Data Comm.	3	IT 120 Introduction to Network Technology	3
INF 208 Systems Analysis and Design	3	IS 390 Requirements Analysis and System Design	3
INF 217 Database of Applications	3	IS 331	3
INF 253 Technical Communications	3	General Elective	3
Math Elective (Math 280 or 223)	3-4	Math 111 or Math 135 Calculus I	3-4
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
INF 218 Database Programming	3	IT 2xx	3
INF 219 Database Administration	3	IT 2XX Elective	3
INF 239 Applications Development	3	IT 2xx	3
Restricted Elective**	3	** See List Below	3
Natural Science elective	4	Science with Lab	4
TOTAL		TOTAL	
	64-65		61-62

Effective Fall 2015

*INF 224 = IT 2xx, INF 246 = Not acceptable, INF 268 = IT 114 (preferred course)

** Gam111= IT 1xx, INF 130 = IT 2xx, INF 267 = IT 230, INF 145 = Not Transferable, INF 152 = CS 115, INF153 = CS 113, INF229 = Not Transferable

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Information Technology - Web Development and Management		B.S. Information Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
BUS 101 Introduction to Business	3	MGMT 190 Introduction to Business	3
INF 101 Intro to Information technology	3	IT 101 Introduction to Information Technology	3
INF Programming Language Fundamentals Elective (INF 145 Required)	3	IT 2XX Elective	3
INF 150 Business Programming Logic	3	IT 1XX Elective	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking	3
Humanities or Social Science Elective	3	HUM 211/212/Hist 213 or Social Science Elective	3
Second Semester (15 credits)		Second Semester (12 credits)	
INF Advanced Programming Language Elective *	3	INF 268 (required)	3
INF 114 Microsoft Office	3	Not Applicable	-
INF 140 Introduction to Multimedia	3	IT 1xx	3
INF 146 Web Development	3	IS 117	3
WRT 201 English Comp II or 202 Technical Writing	3	HUM 102 Writing Speaking Thinking II or Eng 352 Technical Writing	3
Third Semester (15-16 credits)		Third Semester (15-16 credits)	
INF 160 Network Technologies and Data Communications	3	IT 120 Introduction to Network Technology	3
INF 208 Systems Analysis & Design	3	IS 390 Requirements Analysis and Systems Design	3
INF 217 Database for Applications	3	IS 331	3
INF 253 Technical Communications	3	General 1XX Elective	3
MAT Elective	3-4	MATH 280 or MATH 223	3-4
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
INF 263 Advanced Web Development	3	IS 217	3
INF 239 Applications Development	3	Free Elective	3
Restricted Elective **	3	See Below **	3
Natural Science Elective	4	Science + Lab Elective	4
Humanities or Social Sciences Elective (Only one HUM)	3	Humanities or Social Science Elective (Social Science Preferred)	3
TOTAL	64-65	TOTAL	61-62

Effective Fall 2015

*INF 224 = IT 2xx, INF 246 = Not Transferable, INF 268 = IT 114

** GAM 111 = IT 1xx, INF 152 = CS 115, INF 230 = 2xx, INF 130 = IT 2xx, INF 153 = CS 113, INF 267 = IT230 INF 161 = Not Transferable, INF 145 = IT 2xx, INF 163 = IT 1xx, BUS 271 = MGMT 380, WEX 101 = PE

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Information Technology - Networking Administration		B.S. Information Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (15 credits)	
INF 101 Intro to Information Technology	3	IT 101 Introduction to Information Technology	3
INF 108 PC Upgrade, Maintenance and Diagnostics	3	IT 1xx	3
INF 160 Networking Technologies and Data Comm.	3	IT 120 Introduction to Network Technology	3
INF 114 Microsoft Office	3	Not Transferable	-
WRT 101 English Composition	3	HUM 101 Writing, Speaking, Thinking I	3
Humanities or Social Science elective	3	Humanities or Social Science (Social Science Preferred)	3
Second Semester (15 credits)		Second Semester (15 credits)	
BUS 101 Introduction to Business	3	MGMT 190	3
INF 272 Windows Active Directory	3	Free Elective	3
INF 232 Windows Client	3	IT 2xx	3
WRT 201 English Comp II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking or Eng 352 Technical Writing	3
Humanities or Social Science Elective	3	HUM 211, 212 HIST 213	3
Third Semester (16 credits)		Third Semester (16 credits)	
INF 252 Windows Server	3	IT 2xx	3
INF 253 Technical Communications	3	General Elective	3
INF 254 UNIX/LINUX for Network Administrators	3	IT 2XX Elective	3
INF 265 Network Configuration I	3	IT 2XX Elective	3
Natural Science elective	4	Science Elective + Lab	4
Fourth Semester (15-16 credits)		Fourth Semester (15-16 credits)	
INF 256 Topics in Networking or INF 219 Database Administration	3	INF 219 = IT 2xx (INF 256 is not transferrable)	3
INF 257 Network Troubleshooting	3	IT 2XX Elective	3
INF 267 Network Security	3	IT 230 Computer and Network Security	3
Restricted elective*/ INF 270/ INF 271	3	IT 332 Digital Crime/430 Ethical Hacking *	3
Mathematics elective (280 or 223)	3-4	MATH 111 or MATH 138 Calculus I	3-4
TOTAL	64-65	TOTAL	61-64

Effective Fall 2015

*INF 146 = IS 117, INF150=IT 1xx, INF 270 = IT 332, INF 271=IT430, INF 273=Not Transferable, BUS 271 = MGMT 380 WEX 101 = PE (1 credit) & INF 228 (not transferable)

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Natural Sciences or Mathematics- Computer Science option		B.S. Computer Science	
Course	Credit	Course	Credit
First Semester (16 credits)		First Semester (16 credits)	
CIS 165 Fundamentals of Programming	3	Lower General Elective	3
MAT 280 Calculus I	4	MATH 111 Calculus I	4
COM 102 Public Speaking	3	ENG 340 Public Speaking	3
WRT 101 English Composition I	3	Hum 101 Writing, Speaking, Thinking I	3
PHR 103 Basic Logic	3	HUM 211	3
Second Semester (16 credits)		Second Semester (16 credits)	
CIS 265 Advanced Programming Concepts	3	CS 115 Intro to Computer Science C++ =CS113	3
CIS 271 Computer Org and Assembly Language	3	CS 252 Foundation of Computer Science	3
MAT 281 Calculus II	4	Math 112 Calculus II	4
WRT 201 English Composition II	3	Hum 102 Writing, Speaking, Thinking II	3
Humanities Elective	3	Lower General Elective	3
Third Semester (17 credits)		Third Semester (16 credits)	
CIS 277 Data Structures and Algorithms	3	CS 114 Intro to Computer Science II	3
CIS 288 Discrete Math for Computer Science	4	CS 241 Foundation of Computer Science	3
PHY 280 Physics I	4	PHY 111/111A Physics I + Lab	4
Humanities Elective	3	General Elective	3
Social Science Elective (except Geo)	3	Open GUR / Social Science	3
Fourth Semester (16-17 credits)		Fourth Semester (13 credits)	
CIS/MAT Computer Science or Math Elective (Restricted to CS 289 CIS 278 MAT 282 MAT 286)	3-4	Math Elective or CS Elective	3
PHY 290 Physics II	4	PHY 121/121A Physics II + Lab	4
Social Science Elective	3	Social Science GUR	3
Humanities Elective	3	Not Transferable	-
Free Elective (Restricted to CS 289 CIS 278 MAT 282 MAT 286)	3	Math Elective	3
TOTAL		TOTAL	
	65-66		61

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BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Engineering Science		B.S. Chemical Engineering	
Course	Credit	Course	Credit
First Semester (17 credits)		First Semester (14 credits)	
MAT 280 Calculus I	4	Math 111 Calculus I	4
PHY 280 Physics I	4	PHY 111/111A Physics I + Lab	4
CHM 140 General Chemistry I	3	CHEM 125 General Chemistry I	3
CHM 141 General Chemistry I Lab	1	Not Transferable	-
DFT 107 Drafting I	2	Not Transferable	-
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Second Semester (18 credits)		Second Semester (18 credits)	
PHY 290 Physics II	4	PHY 121/121A Physics II + Lab	4
MAT 281 Calculus II	4	Math 112 Calculus II	4
CIS 270 Programing for Scientific Application	4	CS 101 Computer Programming and Problem Solving	3
CHM 240 General Chemistry II	3	CHEM 126 General Chemistry II	3
CHM 241 General Chemistry II Lab	1	CHEM 124 General Chemistry Lab	1
WRT 201 English Composition II	3	HUM 102 Writing, Speaking, thinking II	3
Third Semester (17 credits)		Third Semester (15 credits)	
PHY 291 Physics III	4	PHY 234 Physics III	3
MAT 282 Calculus III	4	Math 211 Calculus III	3
COM 102 public speaking	3	ENG 340 Oral Presentations	3
Humanities Elective	3	HUM 211 HUM 212 or HIST 213	3
Social Science Elective (Required Eco 101)	3	ECON 201 Economics	3
Fourth Semester (14 credits)		Fourth Semester (7 credits)	
PHY 294 Engineering Mechanics	4	Not Transferable	-
MAT 283 Differential Equations	4	MATH 222 Differential Equations	4
Humanities Elective	3	Not Transferable	-
Free Elective (Social Science Required)	3	Social Science GUR	3
TOTAL	66	TOTAL	54

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Optional Credits: *BUS 207 = MGMT 390

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Engineering Science		B.S. Civil Engineering	
Course	Credit	Course	Credit
First Semester (17 credits)		First Semester (14 credits)	
MAT 280 Calculus I	4	MATH 111 Calculus I	4
PHY 280 Physics I	4	PHY 111/111A Physics I + Lab	4
CHM 140 General Chemistry I	3	CHEM 125 General Chemistry I	3
CHM 141 General Chemistry I Lab	1	Not Transferable	-
DFT 107 Drafting I	2	Not Transferable	-
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Second Semester (18 credits)		Second Semester (18 credits)	
PHY 290 Physics II	4	PHY 121/121A Physics II + Lab	4
MAT 281 Calculus II	4	MATH 112 Calculus II	4
CIS 270 Programing for Scientific Application	4	CS 101 Computer Programming and Problem Solving	3
CHM 240 General Chemistry II	3	CHEM 126 General Chemistry II	3
CHM 241 General Chemistry II Lab	1	CHEM 124 General Chemistry Lab	1
WRT 201 English Composition II	3	HUM 102 Writing, Speaking, thinking II	3
Third Semester (17 credits)		Third Semester (15 credits)	
PHY 291 Physics III	4	PHY 234 Physics III	3
MAT 282 Calculus III	4	MATH 211 Calculus III	3
COM 100 speech comm. or COM 102 public speaking	3	Open Gur – ENG 340	3
Humanities Elective	3	HUM 211 HUM 212 or HIST 213	3
Social Science Elective (Required Eco 101)	3	ECON 201 Economics	3
Fourth Semester (14 credits)		Fourth Semester (9 credits)	
PHY 294 Engineering Mechanics	4	MECH 235 Statistics	3
MAT 283 Differential Equations	4	MATH 322 Differential Equations for Applications	3
Humanities Elective	3	Not Transferable	-
Free Elective (Social Science Required)	3	Social Science GUR	3
TOTAL	66	TOTAL	56

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BUS 207 = MGMT 390

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Engineering Science		B.S. Computer Engineering	
Course	Credit	Course	Credit
First Semester (17 credits)		First Semester (14 credits)	
MAT 280 Calculus I	4	MATH 111 Calculus I	4
PHY 280 Physics I	4	PHYS 111/111A Physics I + Lab	4
CHM 140 General Chemistry I	3	CHEM 125 General Chemistry I	3
CHM 141 General Chemistry I Lab	1	Not Transferable	-
DFT 107 Drafting I	2	Not Transferable	-
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Second Semester (18 credits)		Second Semester (11 credits)	
PHY 290 Physics II	4	PHYS 121/121A Physics II + Lab	4
MAT 281 Calculus II	4	MATH 112 Calculus II	4
CIS 270 Programing for Scientific Application	4	Not Transferable	-
CHM 240 General Chemistry II	3	Not Transferable	-
CHM 241 General Chemistry II Lab	1	Not Transferable	-
WRT 201 English Composition II	3	HUM 102 Writing, Speaking, Thinking II	3
Third Semester (17 credits)		Third Semester (12 credits)	
PHY 291 Physics III	4	Not Transferable	-
MAT 282 Calculus III	4	MATH 211 Calculus III	3
COM 100 speech comm. or COM 102 public speaking	3	Open GUR – ENG 340	3
Humanities Elective	3	HUM 211,212 or Hist 213	3
Social Science Elective (recommend Eco 101)	3	ECON 201 Economics	3
Fourth Semester (14 credits)		Fourth Semester (7 credits)	
PHY 294 Engineering Mechanics	4	Not Transferable	-
MAT 283 Differential Equations	4	MATH 222 Differential Equations	4
Humanities Elective	3	Not Transferable	
Free Elective (Required BUS 207)	3	MGMT 390 Principals of Management	3
TOTAL	66	TOTAL	44

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CIS 265 = CS 115

BUS 207 = MGMT 390

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Engineering Science		B.S. Electrical Engineering	
Course	Credit	Course	Credit
First Semester (17 credits)		First Semester (14 credits)	
MAT 280 Calculus I	4	MATH 111 Calculus I	4
PHY 280 Physics I	4	PHY 111/111A Physics I + Lab	4
CHM 140 General Chemistry I	3	CHEM 125 General Chemistry	3
CHM 141 General Chemistry I Lab	1	Not Transferable	-
DFT 107 Drafting I	2	Not Transferable	-
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Second Semester (18 credits)		Second Semester (11 credits)	
PHY 290 Physics II	4	PHY 121/121A Physics II + Lab	4
MAT 281 Calculus II	4	Math 112 Calculus II	4
CIS 270 Programing for Scientific Application	4	Not Transferable	-
CHM 240 General Chemistry II	3	Not Transferable	-
CHM 241 General Chemistry II Lab	1	Not Transferable	-
WRT 201 English Composition II	3	Hum 102 Writing, Speaking, Thinking II	3
Third Semester (17 credits)		Third Semester (15 credits)	
PHY 291 Physics III	4	PHY 234 Physics III	3
MAT 282 Calculus III	4	MATH 211 Calculus III	3
COM 100 speech comm. or COM 102 public speaking	3	Open GUR = ENG 340	3
Humanities Elective	3	HUM 211 HUM 212 or HIST 213 GUR	3
Social Science Elective (Required Eco 101)	3	ECON 201 Economics	3
Fourth Semester (14 credits)		Fourth Semester (7 credits)	
PHY 294 Engineering Mechanics	4	Not Transferable	-
MAT 283 Differential Equations	4	Math 222 Differential Equations	4
Humanities Elective	3	Not Transferable	-
Social Science Elective	3	Social Science GUR	3
TOTAL		TOTAL	
	66		47

Effective Fall 2015

CIS 265 = CS 115

BUS 207 = MGMT 390

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Engineering Science		B.S. Mechanical Engineering	
Course	Credit	Course	Credit
First Semester (17 credits)		First Semester (14 credits)	
MAT 280 Calculus I	4	MATH 111 Calculus I	4
PHY 280 Physics I	4	PHY 111/111A Physics I + Lab	4
CHM 140 General Chemistry I	3	CHEM 125 General Chemistry I	3
CHM 141 General Chemistry I Lab	1	Not Transferable	-
DFT 107 Drafting I	2	Not Transferable	-
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Second Semester (18 credits)		Second Semester (18 credits)	
PHY 290 Physics II	4	PHY 121/121A Physics II + Lab	4
MAT 281 Calculus II	4	MATH 112 Calculus II	4
CIS 270 Programing for Scientific Application	4	CS 101 Computer Programming and Problem Solving	3
CHM 240 General Chemistry II	3	CHEM 126 General Chemistry II	3
CHM 241 General Chemistry II Lab	1	CHEM 124 General Chemistry Lab	1
WRT 201 English Composition II	3	HUM 102 Writing, Speaking, Thinking II	3
Third Semester (17 credits)		Third Semester (15 credits)	
PHY 291 Physics III	4	PHY 234 Physics III	3
MAT 282 Calculus III	4	MATH 211 Calculus III	3
COM 100 speech comm. or COM 102 public speaking	3	Open Gur – ENG 340	3
Humanities Elective	3	HUM 211 HUM 212 or HIST 213 Gur	3
Social Science Elective (Required Eco 101)	3	ECON 201 Economics	3
Fourth Semester (14 credits)		Fourth Semester (10 credits)	
PHY 294 Engineering Mechanics	4	Not Transferable	-
MAT 283 Differential Equations	4	MATH 222 Differential Equations	4
Humanities Elective	3	Not Transferable	-
Free Elective (Social Science Required)	3	Social Science GUR	3
TOTAL	66	TOTAL	48

Effective Fall 2015

BUS 207 = MGMT 390

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Software Development – Game Testing		B.S. Computer Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
GAM 110 Intro to Game Architecture and Design	3	CS 276 2D Game Development	3
GAM 111 Game Programming 2D	3	IT 1xx Elective	3
INF 101 Introduction to Information Technology	3	IT 101 Intro to Information Technology	3
Introductory Programming Elective *	3	See List*	3
WRT 101 English Composition I	3	Hum 101 Writing, Speaking, Thinking	3
Humanities/Social Science Elective	3	Humanities/Social Science (Social Science Preferred)	3
Second Semester (16 credits)		Second Semester (16 credits)	
GAM 211 Game Development 2D	3	IT 265 Game Architecture & Design	3
INF 140 Introduction to Multimedia	3	IT 1xx Elective	3
Advanced Programming Elective (CIS 265)	3	CS 115 Intro To Cs with C ++	3
Math Elective (Math 280 or 223)	4	Math 111 or Math 138	4
WRT 201 English Composition II or WRT 202 Technical Writing	3	Hum 102 Writing & Speaking or ENG 352 Technical Writing	3
Third Semester (15 credits)		Third Semester (15 credits)	
GAM 221 Game Programming 3D	3	CS 366 3D Game Development	3
INF 130 Testing & Quality Assurance	3	IT 2xx Elective	3
INF 230 Advanced Multimedia	3	IT 2xx Elective	3
INF 217 Database for Applications	3	IS 331	3
INF 253 Technical Communications	3	General Elective	3
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
GAM 222 Game Development 3D	3	IT 286 Foundation of Game Production	3
**INF Restricted Elective	3	See List Below **	3
PHY 186 General Physics I	4	Phy 102/102A General Physics + Lab	4
Writing/Humanities Restricted Elective	3	Humanities Lower Level GUR	3
Humanities or Social Science Elective	3	Humanities or Social Science (Social Science Preferred)	3
TOTAL	66	TOTAL	66

Effective Fall 2015

*CIS 165 = Lower General Elective, INF 145 = IT 2xx Elective, INF 253 = General 1xx Elective

**INF160=IT120, IN239 = IT 2xx, or INF146 = IS 117

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Software Development – Game Programming		B.S. ET, Computer Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
CIS 165 Fundamentals of Programming	3	Lower General Elective	3
GAM 110 Intro to Game Architecture and Design	3	CS 276 2D Game Development	3
GAM 111 Game Programming 2D	3	IT 1XX Elective	3
INF 101 Introduction to Information Technology	3	IT 101 Intro to Information Technology	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking	3
Humanities/Social Science Elective	3	Humanities or Social Science	3
Second Semester (16 credits)		Second Semester (13 credits)	
CIS 265 Advanced Programming Concepts	3	CS 113 Introduction to Computer Science	3
GAM 211 Game Development 2D	3	IT 265 Game Architecture and Design	3
INF 140 Introduction to Multimedia	3	IT 1xx (or multimedia specialization)	3
Math Elective (Math 280 or 223)	4	Math 111 or Math 138	4
WRT 201 English Composition II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking or ENG 352 Technical Writing	3
Third Semester (16 credits)		Third Semester (16 credits)	
CIS 277 Data Structures and Algorithms	3	CS 114 Introduction to Computer Science II	3
GAM 221 Game Programming 3D	3	CS 366 3D Game Development	3
INF 130 Testing & Quality Assurance	3	IT 2XX Elective	3
INF 230 Advanced Multimedia	3	IT 2XX Elective	3
Math 286 or CIS 288	4	Math 337 or Math 226	4
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
GAM 222 Game Development 3D	3	IT 286 Foundation of Game Productions	3
*INF Restricted Elective	3	IS 331 or IS 117	3
PHY 186 General Physics I	4	PHY 102/102A General Physics + Lab	4
Writing/Humanities Restricted Elective	3	General Elective	3
Humanities or Social Science Elective	3	Humanities or Social Science Elective (prefer Social Science)	3
TOTAL		TOTAL	
	66		66

Effective Fall 2015

* INF 217 = IS 331

* INF 146 = IS 117

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Information Technology - Database Programming and Administration		B.S. E.T., Computer Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
BUS 101 Introduction to Business	3	MGMT 190 (Free Elective)	3
INF 101 Intro to Information Technology	3	IT 101 Intro to Information Technology	3
INF ... Programming Language Fundamentals elective	3	INF 153 = CS 113 (preferred) INF 145= IT 2XX	3
INF 150 Business Programming Logic	3	IT 1XX Elective	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking	3
Humanities or Social Sciences Elective	3	HUM 211/HUM 212/HIST 213	3
Second Semester (15 credits)		Second Semester (12 credits)	
INF ... Advanced Programming Language elective*	3	*See below	3
INF 114 Microsoft Office	3	Not Transferable	-
INF 146 Web Development	3	IS 117	3
WRT 201 English Comp II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking or Eng 352 Technical Writing	3
Humanities or Social Science elective	3	Humanities or Social Science Elective (prefer Social Science)	3
Third Semester (15-16 credits)		Third Semester (15-16 credits)	
INF 160 Networking Technologies and Data Comm.	3	IT 120 Introduction to Network Technology	3
INF 208 Systems Analysis and Design	3	IS 390 Requirements Analysis and System Design	3
INF 217 Database of Applications	3	IS 331	3
INF 253 Technical Communications	3	General Elective	3
Math Elective (Math 280 or 223)	3-4	Math 111 or Math 111 Calculus I	3-4
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
INF 218 Database Programming	3	IT 2xx	3
INF 219 Database Administration	3	IT 2XX Elective	3
INF 239 Applications Development	3	IT 2xx	3
Restricted Elective**	3	** See List Below	3
Natural Science elective	4	Science with Lab	4
TOTAL	64-65	TOTAL	61-62

Effective Fall 2015

*INF 224 = IT 2xx, INF 246 = Not acceptable, INF 268 = IT 114 (preferred course)

** Gam111= IT 1xx, INF 130 = IT 2xx, INF 267 = IT 230, INF 145 = Not Transferable, INF 152 = CS 115, INF153 = CS 113, INF229 = Not Transferable

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Information Technology - Networking Administration		B.S. Computer Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
INF 101 Intro to Information Technology	3	IT 101 Introduction to Information Technology	3
INF 108 PC Upgrade, Maintenance and Diagnostics	3	Free Elective	3
INF 160 Networking Technologies and Data Comm.	3	IT 120 Introduction to Network Technology	3
INF 114 Microsoft Office	3	Free Elective	3
WRT 101 English Composition	3	HUM 101 Writing, Speaking, Thinking I	3
Humanities or Social Science elective	3	Humanities or Social Science (prefer Social Science)	3
Second Semester (15 credits)		Second Semester (15 credits)	
BUS 101 Introduction to Business	3	MGMT 190 Industrial Org & Mgmt	3
INF 272 Windows Active Directory	3	Free Elective	3
INF 232 Windows Client	3	IT 2** IT Elective Lower Division	3
WRT 201 English Comp II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking II or Eng 352 Technical Writing	3
Humanities or Social Science Elective	3	HUM 211, 212 HIST 213	3
Third Semester (17 credits)		Third Semester (17 credits)	
INF 252 Windows Server	3	IT 2** IT Elective Lower Division	3
INF 253 Technical Communications	3	General Elective	3
INF 254 UNIX/LINUX for Network Administrators	3	IT 2XX Elective	3
INF 265 Network Configuration I	3	IT 2XX Elective	3
Natural Science elective	4	Science Elective + Lab	4
Fourth Semester (16 credits)		Fourth Semester (12-13 credits)	
INF 256 Topics in Networking or INF 219 Database Administration	3	IT 120 Intro to Networking Tech or IT 2** IT Elective Lower Div	3
INF 257 Network Troubleshooting	3	IT 2XX Elective	3
INF 267 Network Security	3	IT 230 Computer and Network Security	3
Restricted elective	3	IT 332 Digital Crime/430 Ethical Hacking	3
Mathematics elective 280 or 223	3-4	MATH 111 or MATH 138, Calculus I	3-4
TOTAL	64-65	TOTAL	64-65

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BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Information Technology - Web Development and Management		B.S. E.T., Computer Technology	
Course	Credit	Course	Credit
First Semester (18 credits)		First Semester (18 credits)	
BUS 101 Introduction to Business	3	MGMT 190 Introduction to Business	3
INF 101 Intro to Information technology	3	IT 101 Introduction to Information Technology	3
INF Programming Language Fundamentals Elective (INF 145 Required)	3	IT 2XX Elective	3
INF 150 Business Programming Logic	3	IT 1XX Elective	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking	3
Humanities or Social Science Elective	3	Humanities or Social Science Elective	3
Second Semester (15 credits)		Second Semester (12 credits)	
INF Advanced Programming Language Elective *	3	INF 268 (required)	3
INF 114 Microsoft Office	3	Not Applicable	-
INF 140 Introduction to Multimedia	3	IT 1xx	3
INF 146 Web Development	3	IS 117	3
WRT 201 English Comp II or 202 Technical Writing	3	HUM 102 Writing Speaking Thinking II or Eng 352 Technical Writing	3
Third Semester (15-16 credits)		Third Semester (15-16 credits)	
INF 160 Network Technologies and Data Communications	3	IT 120 Introduction to Network Technology	3
INF 208 Systems Analysis & Design	3	IS 390 Requirements Analysis and Systems Design	3
INF 217 Database for Applications	3	IS 331	3
INF 253 Technical Communications	3	General 1XX Elective	3
MAT 280 or 223 Elective	3-4	MATH 111 or Math 138	3-4
Fourth Semester (16 credits)		Fourth Semester (16 credits)	
INF 263 Advanced Web Development	3	IS 217	3
INF 239 Applications Development	3	Free Elective	3
Restricted Elective **	3	See Below **	3
Natural Science Elective	4	Science + Lab Elective	4
Humanities or Social Sciences Elective (Only one HUM)	3	Humanities or Social Science Elective (prefer Social Science)	3
TOTAL	64-65	TOTAL	61-62

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BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.A.S. Health Professions/Career Tech – Interdisciplinary Program in Medical Informatics		B.S. Medical Informatics Technology	
Course	Credit	Course	Credit
First Semester (16 credits)		First Semester (16 credits)	
BIO 109 Anatomy & Physiology I	4	R120 241 Anatomy & Physiology I	4
INF 101 Intro to Information Technology	3	IT 101 Information Technology	3
Programming Language Fundamentals elective *	3	INF 153 = CS 113	3
MOA 140 Medical Terminology	3	Technical Elective	3
WRT 101 English Composition	3	HUM 101 Writing, Speaking, Thinking	3
Second Semester (16 credits)		Second Semester (16 credits)	
BIO 209 Anatomy & Physiology II	4	R120 242 Anatomy & Physiology	4
Advanced Programming Language Fundamentals elective **	3	INF 268 = IT 114	3
MOA 201 Diagnostic & Procedural Coding	3	Technical Elective	3
WRT 201 English Comp II or WRT 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking II or Eng 352 Technical Writing	3
Humanities elective	3	HUM 211, 212 or HIST 213	3
Third Semester (14-15 credits)		Third Semester (13/14 credits)	
INF 217 Database for Applications [Oracle]	3	IS 331 – Database	3
MOA 141 Intro to Medical Assisting	3	Technical Elective	3
Mathematics elective ***	3-4	MATH 223 = MATH 135 (Math 280 = Ma111)	3/4
Humanities elective	3	Free elective	3
WEX 101 Dynamics of Health and Fitness	2	PE 101 Intro Lifetime Sports	1
Fourth Semester (18 credits)		Fourth Semester (18 credits)	
BUS 101 Introduction to Business	3	MGMT 190 Industrial Organization & Mgmt	3
INF 218 Database Programming	3	IT 2xx	3
INF 219 Database Administration	3	IT 2xx	3
INF 239 Applications Development	3	IT 2xx	3
MOA 200 Pharmacology for MOAs	3	Technical Elective	3
Social Science Elective	3	Social Science Elective	3
TOTAL	64-65	TOTAL	63/64

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* INF 145 – Not Transferable, INF 152 = CS115/INF 153 = CS 113

** INF 224, INF 246 = Not Transferable, INF 268 = IT 114

*** INT 2xx

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Natural Science or Mathematics – Biology Option		B.A. Biology	
Course	Credit	Course	Credit
First Semester (15 credits)		First Semester (10 credits)	
BIO 101 General Biology I	4	R120 101 General Biology	4
CHM 140 General Chemistry I	3	CHEM 125 General Chemistry	3
CHM 141 General Chemistry I Lab	1	Not transferable	-
MAT 180 Precalculus	4	Not transferable	-
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Second Semester (17-18 credits)		Second Semester (18 credits)	
BIO 203 General Biology II	4	R120 102 General Biology	4
CHM 240 General Chemistry II	3	CHEM 126 General Chemistry II	3
CHM 241 General Chemistry II Lab	1	CHEM 124 General Chemistry Lab	1
MAT 150 statistics	3-4	Math 105 Statistics	4
WRT 201 English Composition II	3	HUM 102 Writing, Speaking, Thinking II	3
Humanities elective	3	HUM 211,HUM 212 or HIST 213	3
Third Semester (17 credits)		Third Semester (16 credits)	
Biology elective* 201, 202, 225, 227	4	*Biology Elective	3
MAT/CIS elective – required for NJIT - Math 280	4	Math 111 Calculus	4
Humanities elective	3	Free elective	3
Social Science elective	3	Social Science Elective	3
Free elective	3	Free Elective	3
Fourth Semester (13 credits)		Fourth Semester (12 credits)	
Biology Elective* 201, 202, 225, 227	4	Biology Elective	3
COM 100 Speech Comm. Or COM 102 Public Speaking	3	Open GUR- ENG 340	3
Humanities elective	3	Free Elective	3
Social Science elective	3	Social Science	3
TOTAL	62-63	TOTAL	56

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*Students must choose among the following courses: BIO201 (Comparative Anatomy), BIO202 (Embryology), BIO225 (Invertebrate Zoology), BIO227 (Principles of Ecology), BIO228 (Introduction to Marine Biology), or BIO229 (Tropical Marine Ecology)

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Natural Science or Mathematics – Biology Option		B.S. Biology	
Course	Credit	Course	Credit
First Semester (15 credits)		First Semester (10 credits)	
BIO 101 General Biology I	4	R120 101 General Biology	4
CHM 140 General Chemistry I	3	CHEM 125 General Chemistry	3
CHM 141 General Chemistry I Lab	1	Not Transferable	-
MAT 180 Precalculus	4	Not Transferable	-
WRT 101 English Composition I	3	HUM 101	3
Second Semester (17-18 credits)		Second Semester (18 credits)	
BIO 203 General Biology II	4	R120 102 General Biology	4
CHM 240 General Chemistry II	3	CHEM 126 General Chemistry II	3
CHM 241 General Chemistry II Lab	1	CHEM 124 General Chemistry Lab	1
MAT 280 Calculus	3-4	Math 111 Calculus	4
WRT 201 English Composition II	3	HUM 102	3
Humanities elective	3	HUM 211, 212 or Hist 213	3
Third Semester (17 credits)		Third Semester (16 credits)	
*Biology elective; 201, 202, 225, 227	4	Biology Elective	3
MAT/CIS elective –required for NJIT - Math 281	4	Math 112 – Calculus II	4
Humanities elective	3	Free Elective	3
Social Science elective	3	Social Science	3
Free elective	3	Free Elective	3
Fourth Semester (13 credits)		Fourth Semester (12 credits)	
*Biology Elective; 201, 202, 225, 227	4	Biology Elective	3
COM 100 Speech Comm. Or COM 102 Public Speaking	3	Open GUR – ENG 340	3
Humanities elective	3	Free Elective	3
Social Science elective	3	Social Science	3
TOTAL		TOTAL	
	62-63		56

Effective Fall 2015

*Students must choose among the following courses: BIO201 (Comparative Anatomy), BIO202 (Embryology), BIO225 (Invertebrate Zoology), BIO227 (Principles of Ecology), BIO228 (Introduction to Marine Biology), or BIO229 (Tropical Marine Ecology) *BS/BA requires MAT 280 & 281, PHY 280 & 290 *BUS 207 = MGMT 390 at NJIT

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Natural Science or Mathematics – Mathematics Option		B.S. Applied Mathematics	
Course	Credit	Course	Credit
First Semester (17 credits)		First Semester (17 credits)	
MAT 280 Calculus I	4	Math 111 Calculus I	4
PHR 103 Basic Logic	3	HUM 211 Pre-Modern World	3
COM 100 Speech Comm. Or COM 102 Public Speaking	3	ENG 340 Public Speaking	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Natural Science elective (Required PHY 280)	4	PHY 111/111A Physics I + Lab	4
Second Semester (17 credits)		Second Semester (17 credits)	
MAT 281 Calculus II	4	Math 112 Calculus II	4
WRT 201 English Composition II	3	HUM 102 Writing, Speaking, Thinking II	3
ECO 101 Macroeconomics	3	ECON 201 Economics	3
Humanities elective	3	Free Elective	3
Natural Science elective (Required PHY 290)	4	PHY 121/121A Physics II + Lab	4
Third Semester (14-15 credits)		Third Semester (14 credits)	
MAT 282 Calculus III	4	Math 213 Calculus III	4
MAT 286 Linear Algebra	4	Math 337 Linear Algebra	3
Humanities elective	3	Free elective	3
Mathematics or Natural Science elective (Required PHY 291)	3-4	PHY 234/234A Physics III + Lab	4
Fourth Semester (16-17 credits)		Fourth Semester (13 credits)	
MAT 283 Differential Equations	4	Math 222 Differential Equations	4
Mathematics or Natural Science elective	3-4	Not Transferable	-
Social Science elective	3	Social Science elective	3
Humanities elective	3	Free elective	3
Free elective (Take BUS 207)	3	MGMT 390 Principles of Management	3
TOTAL	64-66	TOTAL	61

Effective Fall 2015

BERGEN COMMUNITY COLLEGE		NEW JERSEY INSTITUTE OF TECHNOLOGY	
A.S. Business Administration – General Option		B.S. Business	
Course	Credit	Course	Credit
First Semester (15 credits)		First Semester (15 credits)	
ACC 110 Financial Accounting	3	ACCT 115 Principles of Financial Accounting	3
MAT 223 or MAT 280 Calculus I	3	MATH 111 or Math 135 Calculus	3
BUS 101 Introduction to Business	3	MGMT 190 Intro to Business	3
COM 102 Public Speaking	3	ENG 340 Oral Presentations	3
WRT 101 English Composition I	3	HUM 101 Writing, Speaking, Thinking I	3
Second Semester (18 credits)		Second Semester (15 credits)	
ACC 210 Managerial Accounting	3	ACCT 215 Managerial Accounting	3
BUS 233 Business Law I	3	MGMT 290 Legal Environment of Business	3
ECO 101 Macroeconomics	3	ECON 266 Macroeconomics	3
WRT 201 English Comp II or 202 Technical Writing	3	HUM 102 Writing, Speaking, Thinking II or	3
	4	Eng 352 Technical Writing	
HIS 114 US History until WWII	3	HIST 213 the 20 th Century World	3
Third Semester (16 credits)		Third Semester (16 credits)	
BUS 201 Marketing	3	MRKT 330 Principles of Marketing	3
CIS 270 Programming for Scientific Applications	3	CS 100 Computer Programming & Problem Solving	3
Natural Science elective with Lab	4	Natural Science Elective with Lab	4
MAT 150 Statistics I	3	MATH 105	3
ECO 201 Microeconomics	3	ECON 265 Microeconomics	3
Fourth Semester (16 credits)		Fourth Semester (15 credits)	
PHR 111 Intro to Ethics	3	HUM 251 Ethical Issues in Business	3
BUS 208 Human Resources Management	3	HRM 301 Organizational Behavior	3
Natural Science elective	3	Natural Science elective	3
BNF 101 Principles of Banking	3	FIN 218 Financial Markets & Institutions	3
Free elective	3	Free elective	3
TOTAL	61	TOTAL	61

Effective Fall 2015

Basic SS: ANT100, ANT101, ECO201, POLI101, PSY101, PSY102, PSY111, PSY201, PSY210, SOC101, SOC103
Cultural History: HIS101, HIS102, HIS111, HIS112, HIS113, HIS114, HIS121, HIS124, HIS132, HIS146, LIT201, LIT202, LIT203, LIT219, LIT221, LIT223

NJIT 6-20-16