

**ARTICULATION AGREEMENT
BETWEEN
THE RICHARD STOCKTON COLLEGE OF NEW JERSEY
AND
NEW JERSEY INSTITUTE OF TECHNOLOGY
FOR
ACCELERATED BACCALAUREATE/MASTERS DEGREE PROGRAM
IN PHARMACEUTICAL ENGINEERING**

THIS ARTICULATION AGREEMENT ("Agreement"), effective as of the date of the last signatory below ("Effective Date"), is made by and between **The Richard Stockton College of New Jersey**, 101 Vera King Farris Road, Galloway, New Jersey 08205 ("Stockton"), through its School of Natural Sciences and Mathematics ("NAMS") and **New Jersey Institute of Technology**, University Heights, Newark, New Jersey 07102 ("NJIT"), through its Newark College of Engineering ("NCE").

RECITALS

WHEREAS, Stockton is a public college of the State of New Jersey offering Bachelor and Master degrees; and

WHEREAS, NJIT is a public research university of the State of New Jersey offering Bachelor, Master, and Doctoral degrees; and

WHEREAS, this Agreement memorializes the intent of Stockton and NJIT to cooperate with one another in integrating Stockton's NAMS' Bachelor's of Science degree in Chemistry with NJIT's NCE's Master's degree in Pharmaceutical Engineering for qualified Stockton students.

NOW THEREFORE in consideration of the mutual promises hereinafter contained, Stockton and NJIT agree to provide a five (5) year Accelerated Baccalaureate/Masters Degree Program in Chemistry and Pharmaceutical Engineering (collectively the "Program") under the terms and conditions below:

1. **APPLICABLE ACADEMIC PROGRAMS AND DEGREES**

1.1 The following are the individual programs covered by this Agreement:

- Stockton: Chemistry Program
- NJIT: Pharmaceutical Engineering Program

1.2 The following are the degrees covered by this Agreement:

- Stockton: Bachelor's of Science in Chemistry
- NJIT: Master's in Pharmaceutical Engineering

2. **ADMISSION REQUIREMENTS**

2.1 High school seniors interested in the Program will need to submit the Stockton undergraduate application as well as the supplemental application for the Program by February 15th for consideration for cohort entry in September.

- 2.2 Upon Stockton's Enrollment Management Office admission of new applicants, Stockton's Chemistry Program admission committee will review the applications to the Program and recommend the acceptance of a subset of applicants who are in the top 20% of their high school senior class and have SAT scores of at least 1200 in mathematics and critical reading combined and at least 600 in mathematics. These applicants will then be reviewed by NJIT for a final admission decision into the Program. Stockton will inform the high school senior applicant of the status of his/her application.
- 2.3 Offer of admission to the Stockton Chemistry Program with conditional admittance to the NJIT Masters' degree program in Pharmaceutical Engineering is contingent on successful adherence to the following criteria while in undergraduate studies. Lack of adherence to these criteria negates the candidate's eligibility to matriculate into NJIT for the Program's Masters' studies:
- 2.3.1 Stockton undergraduate cumulative GPA of 3.25 or higher;
 - 2.3.2 A minimum grade of "C" in no more than three (3) undergraduate program courses, including any undergraduate courses taken at NJIT toward the Stockton Bachelor's degree and subject to the approval of Stockton's Chemistry Program advisor and NJIT's Pharmaceutical Engineering Department advisor;
 - 2.3.3 Completion of the GRE general exam and achievement of GRE scores in accordance with existing NJIT policy;
 - 2.3.4 Endorsement by the Stockton's Chemistry Program admission committee; and
 - 2.3.5 Completion of the NJIT Master's degree application, including payment of the NJIT Master's application fee, upon completion of the first semester of the undergraduate junior year (70 credits or higher) at Stockton; and
 - 2.3.6 Other criteria that that the parties may wish to mutually impose from time-to-time.

Students who fail to meet any applicable NJIT criteria while at NJIT will be dropped from the Program but still allowed to transfer back to Stockton to complete the Bachelor's of Science degree in Chemistry.

- 2.4 Students in the Chemistry Program at Stockton who did not apply to the Program upon joining Stockton may be considered for admission to the Program if they have a cumulative GPA of 3.25 or higher with a minimum grade of "C" in no more than two (2) required program courses. Applications from these students will be reviewed by Stockton's Chemistry Program admission committee and then by NJIT's Pharmaceutical Engineering Department advisor for a final acceptance decision. Those who are accepted into the Program must thereafter adhere to the criteria listed in Section 2.3 above. Students who do not join the Program as freshman may take longer than five (5) years to complete the Program.
- 2.5 While at each party's campus, all students shall be subject to and expected to follow all written policies, procedures and/or guidelines pertaining to students at the same.

3. GENERAL DESCRIPTION OF PROGRAM

- 3.1 The Program will enable full-time Stockton students who join the Program as freshman to earn both degrees in an expedited time frame of approximately five (5) years according to the attached combined curriculum (see Tables 1 and 2 attached). Qualified Stockton

- students in the Program will be automatically transferred to NJIT at the end of their third year after the completion of the Stockton component. Students must meet all of Stockton's writing and attribute (A,H,V,I) requirements before the automatic transfer.
- 3.2 Upon joining NJIT, students will be required to enroll in courses starting the summer of the third year. They will be fully matriculated at NJIT and expected to take graduate courses as well as undergraduate courses during the fourth year of the program.
 - 3.3 Upon the completion of the appropriate NJIT courses, normally taken in the 4th year of the Program, students in the program will be qualified for Stockton's Bachelor's of Science degree in Chemistry. Students should apply for Stockton graduation in the spring semester of the fourth year of the Program. An official NJIT transcript must be submitted by the student prior to applying for graduation at Stockton. Specified earned credits at NJIT (see Table 1 attached) will be used toward Stockton's Bachelor's of Science degree in Chemistry.
 - 3.4 Full matriculation into the Master's in Pharmaceutical Engineering program at NJIT is contingent upon receiving Stockton's Bachelor's of Science degree in Chemistry. Students will be awarded NJIT's Master's degree in Pharmaceutical Engineering upon successful completion of the Program.
 - 3.5 Each party shall designate an individual to serve as liaison for the purposes of implementing this Agreement. Such person shall have the authority to administer the interests of the party she/he represents in pursuit of the terms and provisions hereof. Both institutions will encourage and maintain a high degree of cooperation between their staff members in the implementation of the terms and provisions of this Agreement.
 - 3.6 During the term of this Agreement, each party hereby grants to the other party a non-exclusive and non-transferable right, to use and display the other party's name and/or logos in print publications in connection with the promotion, implementation and distribution of the Program. All promotional and/or marketing materials created or used by either party will be pre-approved by the other party prior to dissemination; such approval not to be unreasonably withheld. Each party agrees to follow any reasonable trademark usage and/or branding guidelines provided by the other party in connection with its exercise of this license.
 - 3.7 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. Both institutions shall maintain their respective individual accreditation and this Agreement shall be binding only so long as that accreditation is maintained by both parties.
 - 3.8 It is anticipated that subsequent specific agreements for additional collaborative academic programs between Stockton and NJIT similar to the Program described herein may be made between NAMS and NCE. In such event, these specific agreements will be memorialized in writing and signed by the appropriate authorized representatives of Stockton and NJIT.

4. FINANCIAL TERMS/STUDENT RECORDS

- 4.1 Each institution will establish, bill, collect and retain the tuition and fees for those courses offered and taken by the student at their respective campus. If any student withdraws or fails to progress through the Program as required, such student will be responsible for any unpaid tuition and fees for courses in which the student enrolled. Neither party shall have any liability to the other for any uncollected student tuition and fees.
- 4.2 Stockton scholarships shall not be transferrable and cannot be used to pay for NJIT tuition or fees upon the transfer of the student from Stockton to NJIT. NJIT scholarships shall not be transferrable and cannot be used to pay for Stockton tuition or fees upon the return of any student from NJIT to Stockton.
- 4.3 All students will be responsible for all of their own tuition and fees and living costs, including: (a) transportation; (b) room and board expenses; (c) medical insurance (mandatory) and health service fees; (c) textbooks; (d) clothing; (e) personal and miscellaneous expenses. Neither party shall bear any responsibility in providing funds to a student for any purpose.
- 4.4 All student records related to the Program shall be the exclusive property of the party creating/collecting the same, and shall only be disclosed in accordance with and to the extent permissible by the U.S. Family Educational Rights and Privacy Act ("FERPA"). Student records shared between the parties for Program registration and admission purposes shall be jointly owned by the parties and each party shall only disclose the same in accordance with and to the extent permitted by FERPA. All students will be asked to sign a FERPA waiver upon registration and/or enrollment into the Program at Stockton to permit Stockton to share students' records with NJIT.
- 4.5 Each party shall have final authority and oversight with respect to all of their own academic matters, including but not limited to tuition and fees, admission and registration processes, degree plans, conferring of such degrees and maintenance of all of their own official student records.

5. GENERAL PROVISIONS

- 5.1 Both parties recognize that the confidential information of each party and/or its students shall remain the property of that party or student during the term of this Agreement. Both parties will keep confidential all information marked and/or identified as confidential at the time of disclosure provided by the other party other than to the extent disclosure is required to perform this Agreement. All "confidential information" referred to in this Section 5.1 excludes: (a) information generally available to the public otherwise than by disclosure in breach of the terms of this Agreement; (b) is known to the receiving party prior to the time of disclosure; (c) is lawfully obtained by the receiving party from a third party; (d) is independently developed by or for the receiving party; or (e) is required by any law (e.g., New Jersey Open Public Records Act), regulation, subpoena, statute and/or court or administrative order to be disclosed. The terms of this Section 5.1 shall survive expiration and/or termination of this Agreement for three (3) years thereafter. This Agreement shall not be considered confidential.

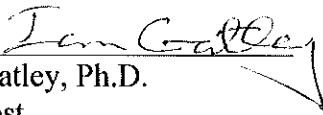
- 5.2 Unless terminated earlier as permitted under Section 5.4 below, this Agreement will be valid for a period of five (5) years from the Effective Date of this Agreement. This Agreement may thereafter be renewed upon mutual written consent of the parties. It is anticipated that student enrollment in this Program will begin with the fall semester, September 2012.
- 5.3 Both parties agree to review this Agreement on an annual basis and make amendments where appropriate.
- 5.4 Either party may terminate this Agreement on written notification at least sixty (60) days prior to the last date of any given semester. Such termination shall be effective as of the last date of such semester.
- 5.5 In the event of expiration and/or early termination of this Agreement, each party commits that it shall make a good faith effort to formulate a "teach-out" plan applicable to all then enrolled students who are at any stage of the Program and/or who have been pre-admitted to the same, including permitting any such enrolled student to be able to complete his or her degree requirements for the Program regardless if the Agreement is terminated and when the effective date of termination occurs prior to the completion date of the Program. The parties agree that any early termination shall be made through a consultative process with one another and that all affected students shall be notified of any decision to terminate this Agreement as soon as possible along with all available alternative options.
- 5.6 There is no intended third party beneficiaries to this Agreement, including but not limited to potential NJIT and/or Stockton students.
- 5.7 Each party agrees to be responsible for its own actions and those of its officers, employees and agents.
- 5.8 Except as stated in this Agreement, NJIT and Stockton shall continue to be autonomous and shall be governed independently by their respective governing bodies and administration.
- 5.9 This Agreement constitutes the entire agreement between the parties. No modification will be permitted except in writing, signed by both parties.
- 5.10 This Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey, including but not limited to, the New Jersey Tort Claims Act, N.J.S.A. 59:1-1 et seq., and to the extent applicable to a party, the New Jersey Contractual Liability Act, N.J.S.A. 59:13-1 et seq.
- 5.11 Withdrawal from this Agreement as permitted herein by either party shall be without any resulting liability. Neither party 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.

- 5.12 Except as otherwise contained herein, each party disclaims all warranties and representations, either express or implied, with respect to its programs and/or any courses or services to be performed hereunder.
- 5.13 Student intellectual property rights shall be determined by the policies of the party with whom the student is enrolled at the time of making and/or creating the same.
- 5.14 In performing this Agreement, each party agrees to comply with all applicable laws and regulations, and each party will not discriminate against any student based on sex, race, national origin, religion, color, sexual orientation, age or disability or any other form of discrimination prohibited by civil rights principles recognized under U.S. federal and/or State of New Jersey laws.


IN WITNESS WHEREOF, the parties have duly executed and delivered this Agreement as of the dates set forth below.

New Jersey Institute of Technology

The Richard Stockton College of New Jersey



Ian Gatley, Ph.D.
Provost



Harvey Kesselman
Provost

Date: May 16, 2012

Date: May 23, 2012

Table 1: The Accelerated Program Curriculum

Stockton BS in Chemistry (128)		NJIT MS in Pharmaceutical Engineering
Program (81)		
MATH 2215 Calculus I	5	Math requirements are met at Stockton
MATH 2217 Calculus II	5	
MATH 2216 Calculus III	5	
MATH 3328 Differential Equations	4	
Math2110 Math Software or CPLS2410 Prob. Solv. Using MATLAB	1-2	
PHYS 2220/25 Physics I w/Lab	6	Physics requirements are met at Stockton
PHYS 2230/35 Physics II w/Lab	6	
PHYS 3200 Mechanics of Materials	4	
CHEM 2110/15 CHEM II/LAB (Gen prin)	5	Chemistry requirements are met at Stockton
CHEM 2120/25 CHEM II/LAB Organic	5	
CHEM 2130 CHEM III Organic Reactions with lab	4	
CHEM 2140/45 CHEM IV/LAB (Gen. prin)	4	
CHEM 3310 Lab Methods I	4	
CHEM 3320 Lab Methods II	4	
Select one of the following:	4	
CHEM 3420 Physical Chemistry II, or		
CHEM 3110 Inorganic Chemistry		
Chemical/ Pharmaceutical Engineering courses to be transferred back from NJIT to reach the min. total program credits required (81)	← 16 (T)	Summer Third Year ChE 210 Chemical Process Calculations I (2) ChE 210W Chemical Process Calculations I Workshop (0) ChE 230 Chemical Engineering Thermodynamics I (3) ChE 230W ChE Thermodynamics I Workshop (0)
Liberal Arts (47)		Fourth Year ChE 240 Chemical Process Calculations II (3) ChE 240W Chemical Process Calculations Workshop II(0) ChE 260 Fluid Flow (3) ChE 342 Chemical Engineering Thermodynamics II (3) ChE 370 Heat and Mass Transfer (4) PhEn 601 Principles of Pharmaceutical Engineering (3) PhEn 606 Pharmaceutical Unit Operations: Solid (3) PhEn 618 Prin. of Pharmacokinetics and Drug Delivery (3)
General Studies (32)		
2 GAH, 2 GSS, GIS, GEN	24	
8 engineering credits are transferred back as GNM	← 8(T)	
At Some Distance (15)		PhEn 604 Validation and Regulatory Issues in the Pharmaceutical Industry (3)
3 ASD courses	12	
Course is transferred back to Stockton as ASD	← 3(T)	
		Fifth Year ChE 349 Kinetics and Reactor Design (3) ChE 360 Separation Processes I (3) ChE 396 Chemical Engineering Lab I (3) PhEn 603 Pharmaceutical Unit Operations: Liquid (3) Two PhEn track specific core electives (6) Three grad electives (9) or one grad elective (3) + Thesis (6)
Summary		Summary
Total P/C at Stockton = 65+		Summer Third Year: 5
Total P/C at NJIT = 16+		Fourth Year: 25
Total G at Stockton =24		Fifth Year: 27
Total G at NJIT = 8		Total undergraduate credits: 27
Total ASD at Stockton = 12		Total graduate credits: 30
Total ASD at NJIT = 3		
24 courses and 6 labs at Stockton		

Total credits at Stockton 101+		Total at NJIT = 57
Total credits for the BS degree	128+	Total credits for the MS degree = 30

Stockton's writing requirement and attributes must be completed

Table 2: Proposed Semester by Semester Schedule Model

First Year						
Fall			Spring			
CHEM 2110/15	CHEM I/Lab	5	CHEM 2140/45	CHEM IV/Lab	4	
MATH2215	Calculus I	5	MATH 2216	Calculus II	5	
GSS or GAH	Freshman seminar	4	G or ASD	Elective	4	
G or ASD	W1 course	4	G or ASD	Elective	4	
Second Year						
Fall			Spring			
CHEM 2120/25	CHEM II/Lab	5	CHEM 2130/35	CHEM III/Lab	4	
PHYS 2220/25	Physics I /Lab	6	PHYS 2230/35	Physics II/Lab	6	
G or ASD	Elective	4	PHYS 3200*	Mechanics of Materials	4	
G or ASD	Elective	4	G or ASD	Elective	4	
Third Year						
Fall			Spring			
CHEM 3310	Lab Methods I	4	CHEM 3320	Lab Methods II	4	
CHEM 3310/3410	Inorganic Chem. or Physical Chemistry II+	4	MATH 3328	Differential equations	4	
MATH 2217	Calculus III	4	G or ASD	Elective	4	
GIS	Elective	4	MATH/CPLS	Math Software/ Problem Solving using MATLAB**	1-2	
					Total at Stockton	101+
Student is transferred to NJIT						
Third Year - Summer						
ChE 210/210W	Chem. Process Calculations I/Workshop	2				
ChE 230/230W	Chem. Engg Thermodynamics I /Workshop	3				
Fourth Year						
Fall			Spring			
ChE 240/240W	Chem. Process Calculations II/Workshop	3	ChE 370	Heat and Mass Transfer	4	
ChE 260	Fluid Flow	3	PhEn 604	Validation and Regulatory Issues in the Pharmaceutical Industry	3	
ChE 342	Chem. Engg Thermodynamics II	3	PhEn 606	Pharmaceutical Unit Operations: Solid	3	
PhEn 601	Principles of Pharmaceutical Engineering	3	PhEn 618	Principles of Pharmacokinetics and Drug Delivery	3	
					Total at end of 4th year	131+
Student is awarded a B.S. in Chemistry from Stockton						
Fifth Year						
Fall			Spring			
ChE 360	Separation Processes I	3	PhEn 6xx	Track specific core elective	3	
ChE 349	Kinetics and Reactor Design	3	Graduate	elective	3	
ChE 396	Chemical Engineering Lab I	3	Graduate	Elective #	3	
PhEn 603	Pharmaceutical Unit Operations: Liquid	3	Graduate	Elective #	3	
PhEn 6xx	Track specific core elective	3				
					Total at end of program	158+
Student is awarded an M.S. in Pharmaceutical Engineering from NJIT						

* PHYS3200 can be taken in the spring of 2nd or 3rd year. Student may take Mech 320 at NJIT instead.

+ Offered in the Spring # Graduate elective or Thesis
** This can be CPLS 2410 (2) or Math 2110 (1).