DUAL ENROLLMENT AGREEMENT
BETWEEN
FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE
AND
FAYETTEVILLE STATE UNIVERSITY

I. This agreement provides that all articulation students who commit to pursuing an Associate in Science degree at Fayetteville Technical Community College (FTCC) will receive a letter of admission to Fayetteville State University (FSU) if they meet FSU's transfer admission requirements or the University of North Carolina's transfer exception requirements. Students will be asked to indicate their intention to pursue the dual enrollment plan. Students who accept the offer of admission to Fayetteville State University will be considered "dual enrolled" students.

II. Students will receive a degree plan that will specify the courses required at each institution, with equivalent courses noted, to earn an Associate in Science at Fayetteville Technical Community College and a Bachelor of Science in Mathematics With Concentration In Applied Mathematics at Fayetteville State University. Students will be able to enroll in courses at both institutions simultaneously and will have an advisor at each institution.

III. To activate their enrollment at FSU; they will need to complete the Dual Enrollment Form, obtain appropriate signatures from FTCC officials, and submit it to the FSU's dual enrollment coordinator(s) prior to their first semester of enrollment. So long as a dual enrolled student enrolls in at least one course at FSU or FTCC, he or she will be eligible to re-enroll in subsequent semesters. A student who does not maintain continuous enrollment at FSU or FTCC will lose their dual enrollment status and will need to reapply to FSU and re-submit the Dual Enrollment Request Form. FSU will not waive the application fee anytime after the initial application for admission. An applicant's previous designation of dual enrolled student does not guarantee reinstatement of the dual enrollment designation.

IV. Students are required to meet the academic progression standards of both institutions. Students placed on academic suspension at either institution will lose their dual-enrollment status. Students may appeal academic suspension according to the guidelines of the appropriate institution, but approval for re-enrollment of a previously suspended student at one institution does not restore the student to dual enrollment status or re-enrollment at the other institution. The student must submit a written request for reinstatement of the dual enrollment designation to both institutions for separate consideration.

V. Students will be responsible for fulfilling financial obligations of both institutions, including tuition and all required fees. Students receiving financial aid may not receive financial aid from both institutions simultaneously. For financial aid purposes, FTCC will be considered the home institution for dual enrolled students until they earn a total of sixty-five (65) credits. FSU will be considered the home institution for students after they have earned sixty-five (65) or more hours. Students who are enrolled simultaneously at FTCC and FSU will authorize the home institution to

use financial aid awards to pay tuition and fees to the other ("host") institution. Both institutions agree that they will not drop courses (due to outstanding balances) of dual enrolled students, if the student has processed financial aid paperwork for payment.

VI. Qualified faculty members will teach all courses accepted for transfer to Fayetteville State University. Faculty teaching courses for transfer must meet the standards set forth in Principles of Accreditation, section 3.7.1, and Faculty Credential Guidelines by the Southern Association for Colleges and Schools.

VII. The dual enrollment articulation agreement between the Department of Mathematics and Computer Science at Fayetteville State University and Fayetteville Technical Community College will be effective as of October 1, 2010.

Each party has caused this Agreement to be executed by its duly authorized representative as of **(date TBA).**

Fayetteville State University:

James A. Anderson 7-21-10
Dr. James A. Anderson, Chancellor Date
Fayetteville State University

Jon Young 7/15/10
Dr. Jon Young, Provost and Date
Vice Chancellor for Academic Affairs

Roxie M. Shabazz 7/8/10
Mrs. Roxie M. Shabazz, Associate Vice Date
Chancellor, Enrollment Management

Dan E Barlow 7/7/10
Dr. David E. Barlow Date
College of Arts and Sciences

Dan E Barlow 7/9/10
Dr. Vinod Arya, Chair Date
Department of Mathematics and
Computer Science

Fayetteville Technical Community College:

J. Larry Keen 6-7-10
Dr. J. Larry Keen, President Date
Fayetteville Technical Community College

Barbara Tansey 5-18-10
Dr. Barbara Tansey, Vice President Date
for Academic and Student Services

Ray D Walters 5/7/10
Mr. Ray Walters, Dean of College Date
Transfer & General Education Programs

Fayetteville Technical Community College – Fayetteville State University
Dual Enrollment Degree Plan

Mathematics, A.S. to B.S. (Math) with Concentration in Applied Mathematics
121 Credits Required for B.S. (Math) with Concentration in Applied Mathematics

FTCC Course #	FTCC Course Title	FSU Course #	FSU Course Title
Core Curriculum Requirements – (51 credits)		**Univ. College Core Curriculum–(48 credits)**	
Other Required Courses **– (7 credits)**		***Freshman Seminars/University Studies Critical Thinking/Speech*** **– (8 credits)**	
ACA 111 College Students Success **OR** ACA 115 Success and Study Skills Waived for transfer students with 30+ credits		UNIV 110	University Studies
Waived for transfer students with 57+ credits		PHIL 110	Critical Thinking
CIS 110	Introduction to Computers	CSC 100**	Introduction to Computers
COM 231	Public Speaking	SPEE 200	Introduction to Speech
General Education Courses **– (6 credits)**		***English Composition*** **– (6 credits)**	
ENG 111	Expository Writing	ENGL 110	English Composition I
One of following three courses: ENG 112 Argument Based Research ENG 113 Literature Based Research ENG 114 Prof Research & Reporting		ENGL 120	English Composition II
Humanities/Fine Arts(Choose three)–**(9 credits)** ***Courses must be in three different Disciplines*** ***One must be a literature course***		***Humanities/Fine Arts*** **– (3 credits)**	
ART 111	Art Appreciation	ART 210	Survey of Art
ART 114	Art History Survey I	ART 211	Introduction to Art History
ENG 131	Introduction to Literature	ENGL 240	Introduction to Literature
ENG 231	American Literature I	ENGL 321**	American Literature I
ENG 261	World Literature I	ENGL 211	World Literature I
ENG 262	World Literature II	ENGL 212	World Literature II
HUM 211	Humanities I	HUMN 211	Music, Arts and Ideas I
HUM 212	Humanities II	HUMN 212	Music, Arts and Ideas II
MUS 110	Music Appreciation	MUSI 210	Music Appreciation
MUS 112	Introduction to Jazz	MUSI 225	History Jazz/American Culture
PHI 215	Philosophical Issues	PHIL 210	Introduction to Philosophy
PHI 230*	Introduction to Logic	PHIL 220	Introduction to Logic
PHI 240	Introduction to Ethics	PHIL 320**	Introduction to Ethics
Social/Behavioral Sci.(Choose three)–**(9 credits)** ***Courses must be in three different Disciplines*** ***One must be a history course***		***History /Social Sciences*** **– (3 credits)**	
ECO 251	Principles of Microeconomics	ECON 212	Principles of Microeconomics
ECO 252	Principles of Macroeconomics	ECON 211	Principles of Macroeconomics
GEO 111	World Regional Geography	GEOG 220	World Regional Geography
GEO 112	Cultural Geography	GEOG 210	Principles of Geography
HIS 111	World Civilization I	HIST 110	World History to 1610
HIS 112	World Civilization II	HIST 120	World History since 1600

HIS 131	American History I	HIST 211	U.S. History to 1865
HIS 132*	American History II	HIST 212	U.S. History since 1865
HIS 222*	African American History I	HIST 210	African American History
POL 110	Intro to Political science	POLI 200	Introduction to Political Science
POL 120	American Government	POLI 210	Prin. of American Government
POL 210	Comparative Government	POLI 200	Introduction to Political Science
PSY 150	General Psychology	PSYC210	General Psychology
SOC 210	Introduction to Sociology	SOCI 210	Principle of Sociology
SOC 213	Sociology of the Family	SOCI 330**	Marriage and Family Relations
Natural Sciences* – (8-credits)** ***Choose a two course sequence		***Natural Sciences* – (10-credits)** ***Choose physics courses only***	
BIO 111 BIO 112	General Biology I General Biology II	BIOL 110** BIOL 130**	General Biology I General Biology II
CHM 151 CHM 152	General Chemistry I General Chemistry II	CHEM 140** CHEM 160**	General Chemistry I General Chemistry II
PHY 151 PHY 152 PHY 153*	College Physics I College Physics II College Physics III	PHYS 121 PHYS 122 PHYS 123	College Physics I College Physics II College Physics III
PHY 251 PHY 252	General Physics I General Physics II	PHYS 111** PHYS 112**	General Physics I General Physics II
***Mathematics* – (6 credits)** ***Natural Science/Mathematics Courses*–(6 credits)**		***Mathematics* – (7 credits)**	
MAT 171	Precalculus Algebra	MATH 129	Precalculus Mathematics I
One of following two courses: CIS 115 Intro to Programming and Logic MAT 151 Statistics I		CSC 120 **	Intro to Prog Methodology
Two of following three courses: MAT 172 Precalculus Trigonometry BIO 130 Introductory Zoology BIO 140 Environmental Biology		MATH 130 ZOOL 110**	Precalculus Mathematics II General Zoology
The requirement may be satisfied by taking MAT 171 and MAT 172		MATH 131 Algebra and Trigonometry (MATH 129 and MATH 130 may be used to replace MATH 131)	
MAT 271*	Calculus I	MATH 142	Calculus-Analytic Geometry I
		***Univ. College Restricted Electives* – (9 credits)**	
The requirement may be satisfied by using the extra credits from **Humanities/Fine Arts** and **Social/Behavioral Sciences** options above.		Select from: History and Social Sciences options above. Humanities and Fine Arts options above. 6 credits of foreign language sequence. 3 credits of any 100- or 200-level class.	
		***Physical Education/Health Education* - 2 credits**	
The requirement may be satisfied by taking PED 152 – Fitness for Life **OR** two from the following: PED 101 to PEDU 190.		Select HEED 112 – Health & Wellness **OR** two from the following: PEDU 101 to PEDU 141.	

*Courses not required by FTCC Core Curriculum		**Courses not required by FSU Core Curriculum	
B.S. (Math) with Concentration in Applied Mathematics Program Requirements			
FTCC Required Major Courses – (14 credits)		**FSU Required Major Courses – (73 credits)**	
		***Mathematics Courses* – (38 credits)**	
MAT 167 /167 A	Discrete Mathematics/Lab	MATH 150	Discrete Mathematics
MAT 175 /175 A	Precalculus/Lab	MATH 131**	Algebra and Trigonometry
MAT 272	Calculus II	MATH 241	Calculus-Analytic Geometry II
MAT 273	Calculus III	MATH 242	Calculus-Analytic Geometry III
MAT 280	Linear Algebra	MATH 251	Linear Algebra
MAT 285	Differential Equations	MATH 331	Differential Equations I
Courses Not Available at FTCC		MATH 260	Foundations of Mathematics
		MATH 361	Intro. To Modern Algebra I
		MATH 362	Intro. To Modern Algebra II
		MATH 372	Linear Programming
		Select three from the following six courses	
		MATH 412	Advanced Calculus
		MATH 431	Differential Equations II
		MATH 461	Theory of Real Variables
		MATH 472	Theory of Numbers
		MATH 481	Introduction to Topology
		MATH 492	Complex Variables
		***Other Course Requirements* – (14 credits)**	
		PHYS 211	Mechanics
		PHYS 212	Heat
		STAT 301	Introduction to Probability
		STAT 302	Mathematical Statistics
		***Applied Mathematics Courses* – (21 credits) Choose a) or b) or c)**	
a)		**a) *Option***	
		CSC 310	Intro to Numerical Methods
		MATH 345	Mathematics of Interest Rates
		MATH 350	Mathematics of Financial Market
		STAT 315	Intro to Regression Analysis
		STAT 415	Applied Time Series Analysis
		Select *two* courses from the following:	
		MATH 320	Difference Equations
		MATH 431	Differential Equations II
		MATH 435	Partial Diff Equation/Appl.
		MATH 420	Mathematical Modeling
		MATH 440	Applied Numerical Methods
		CSC 360	Computer Simulation
		CSC 451	Computer Graphics
		MATH 325	Discrete Optimization

		MATH 380	Nonlinear Programming
		MATH 410	Intro to Calculus of Variation
		MATH 315	Applied Cryptography
		MATH 405	Prin. of Discrete Appl. Math
		MATH 415	Intro to Wavelets/Data Comp.
b)		**b) *Option***	
		CSC 360	Computer Simulation
		CSC 451	Computer Graphics
		MATH 325	Discrete Optimization
		MATH 380	Nonlinear Programming
		MATH 410	Intro to Calculus of Variation
		Select *two* courses from the following:	
		CSC 310	Intro to Numerical Methods
		MATH 345	Mathematics of Interest Rates
		MATH 350	Mathematics of Financial Market
		STAT 315	Intro to Regression Analysis
		STAT 415	Applied Time Series Analysis
		MATH 320	Difference Equations
		MATH 431	Differential Equations II
		MATH 435	Partial Diff Equation/Appl.
		MATH 420	Mathematical Modeling
		MATH 440	Applied Numerical Methods
		MATH 315	Applied Cryptography
		MATH 405	Prin. of Discrete Appl. Math
		MATH 415	Intro to Wavelets/Data Comp.
c)		**c) *Option***	
		MATH 320	Difference Equations
		MATH 431	Differential Equations II
		MATH 435	Partial Diff Equation/Appl.
		MATH 420	Mathematical Modeling
		MATH 440	Applied Numerical Methods
		Select *two* (*or three) courses from the following:**	
		CSC 310	Intro to Numerical Methods
		MATH 345	Mathematics of Interest Rates
		MATH 350	Mathematics of Financial Market
		STAT 315	Intro to Regression Analysis
		STAT 415	Applied Time Series Analysis
		CSC 360	Computer Simulation
		CSC 451	Computer Graphics
		MATH 325	Discrete Optimization
		MATH 380	Nonlinear Programming
		MATH 410	Intro to Calculus of Variation
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		MATH 415	Intro to Wavelets/Data Comp.