

State University of New York at Binghamton
Thomas J. Watson School of Engineering and Applied Science
BS in Mechanical Engineering-Four-Year Program

Application curriculum code: 0268

HUDSON VALLEY COMMUNITY COLLEGE-2009 requirements

<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
Math 221	Calculus I (M)	MATH 180	Math 222	Calculus II	MATH 190
Chem 111	Chemical Principles (L)	CHEM 120/121 req'd	Phys 131	General Physics I	PHYS 150
WTSN 111	Discovering Engineering I	SUBSTITUTE ENGR 110	WTSN 112	Discovering Engineering II (J)	SUBSTITUTE ENGR 120
WTSN 103	Tech Communication I	ENG 101	WTSN 104	Tech Communication II	ENG 102
	General Ed Elective (P)	HIST 110 OR 111		General Ed Elective (G)	HIST 100 OR 101
	Body /Wellness	PHED 146 WELLNESS		Body/Wellness	ANY PHED ACTIVITY
Year 2					
<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
Math 371	Math Methods in Sci	MATH 220	Math 323	Calculus III	MATH 210
Phys 132	General Physics II	PHYS 151	ME 211	Intro to Solid Mechanics	ENGR 210*SEE NOTE
ME 273	Engineering Statics	ENGR 210*SEE NOTE	ME 274	Engineering Dynamics	ENGR 220
	General Ed Elective (A)	<small>Any Thea, Art, Music-can take after transfer also</small>	EECE 260	Circuits (with lab)	ENGR 225
				General Ed Elective (N)	Any social science
Year 3-POINT OF TRANSFER					
<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
ME 381	Computer-Aided Engineering		ME 392	Mech. Machine Design	
ME 331	Thermodynamics		ME 351	Fluid Mechanics	
ME 372	Material Science		ME 372	Engr'g Project Management	
ME 302	Engineering Analysis		ME 391	Meas. & Instrumentation Lab	
	Open Elective**			General Ed Elective (H)	Any humanities
Year 4					
<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
ME 493	Senior Project I (J)		ME 494	Senior Project II (H)	
ME 421	Mechanical Vibrations		ME 424	Control Systems in ME	
ME 441	Heat Transfer			Technical Elective	
ME 403	Engr'g Computational Methods			Technical Elective	
	Technical Elective			Open Elective**	

*ENGR 210, Statics & Strength of Materials was department-(re)approved to cover both ME 273 and ME 211 for transfer as of Fall 2009.

**Department-approved electives allow students to tailor their program to pursue individual interests.

Thomas J. Watson School of Engineering and Applied Science at Binghamton University
BS in Electrical Engineering-Four-Year Program

Application curriculum code: 0266

HUDSON VALLEY COMMUNITY COLLEGE-2009 requirements

<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
Math 221	Calculus I (M)	MATH 180	Math 222	Calculus II	MATH 190
Chem 111	Chemical Principles (L)	CHEM 120*	Phys 131	General Physics I	PHYS 150
WTSN 111	Discovering Engineering I	SUBSTITUTE ENGR 110	WTSN 112	Discovering Engineering II (J)	SUBSTITUTE ENGR 120
WTSN 103	Tech Communication I	ENG 101	WTSN 104	Tech Communication II	ENG 120
	General Ed Elective (P)	HIST 110/111		General Ed Elective (G)	HIST 100/101
	Body /Wellness	PHED 146 WELLNESS		Body/Wellness	ANY PHED ACTIVITY

Year 2

<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
Math 371	Math Methods in Sci	MATH 220	ISE 261	Probabilistic Systems I	MATH 187
Phys 132	General Physics II	PHYS 151	EECE 260	Electrical Circuits	ENGR 225
CS 211	Engineering Programming	CSCI 110	CS 240	Data Structures & Algor	CSCI 211**
EECE 251	Digital Logic Design	CSCI 111	EECE 252	Microprocessors	*See notes
EECE 281	EECE Seminar I	SUBSTITUTE CHEM 121			

Year 3-POINT OF TRANSFER

<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
Math 323	Multivariable Calculus	MATH 210	EECE 387	EECE Design Lab	
EECE 315	Electronics I		EECE 323	Electromagnetics	
EECE 301	Signals and Systems		EECE 361	Control Systems	
EECE 332	Semiconductor Devices		EECE 377	Communication Systems	
EECE 382	EECE Seminar II			General Ed Elective (H)	Any Humanities

Year 4

<u>Fall</u>			<u>Spring</u>		
Course No.	Course Name	Transfer Course	Course No.	Course Name	Transfer Course
EECE 487	Senior Project I (J)		EECE 488	Senior Project II	
	Technical Elective I			Technical Elective II	
	Professional Elective I	ENGR 250 or 210		Professional Elective II	ENGR 220
	General Ed Elec (A) Aesthetics	Any Thea, Art or Music		General Ed Elec (N)	Any Social Science

*No microprocessors course is available, but can be taken after transfer. HVCC's Chem 120 is approved by BU's ECE Dept as replacement/substitute credit for Chem 107 (allowable for ECE) and will be noted as such on the transfer credit evaluation for each student. Chem 121 will be used as substitute credit for Seminar I.

**CSCI 111 does not include C++, so students are strongly advised to learn this language on their own.

Thomas J. Watson School of Engineering and Applied Science at Binghamton University
BS in Computer Engineering-Four-Year Program

Application curriculum code: 0843

HUDSON VALLEY COMMUNITY COLLEGE-2010 requirements

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course HVCC	BU Course No.	Course Name	Transfer Course HVCC
Math 221	Calculus I (M)	MATH 180	Math 222	Calculus II	MATH 190
Chem 111	Chemical Principles (L)	CHEM 120*	Phys 131	General Physics I	PHYS 150
WTSN 111	Discovering Engineering I	SUBSTITUTE ENGR 110	WTSN 112	Discovering Engineering II	SUBSTITUTE ENGR 120
WTSN 103	Tech Communication I	ENG 101 (J)	WTSN 104	Tech Communication II	ENG 102
	General Ed Elective**			General Ed Elective (G)	HIST 100 or 101

Year 2

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course	BU Course No.	Course Name	Transfer Course
Math 371	Differential Equations	MATH 220	ISE 261	Probabilistic Systems I	MATH 187
Phys 132	General Physics II	PHYS 151	EECE 260	Circuits	ENGR 225
CS 211	Program'g for Engrs I	CISS 110	CS 212	Program'g for Engrs II	CISS 111
EECE 251	Digital Logic Design	Planned at HVCC	EECE 252	Comp Org/Microprocessors	***
EECE 281	EECE Seminar I	SUBSTITUTE CHEM 121			

Year 3

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course	BU Course No.	Course Name	Transfer Course
EECE 301	Signals & Systems		EECE 352	Computer Architecture	
EECE 315	Electronics I		EECE 387	Design Lab	
EECE 351	Digital System Design		EECE 359	Computer Networks	
MATH 314	Discrete Math	MATH 183		Gen Ed Elective **	
EECE 382	EECE Seminar II				

Year 4

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course	BU Course No.	Course Name	Transfer Course
EECE 487	Senior Project I (J)		EECE 488	Senior Project II	
	Technical Elective I			Technical Elective II	
CS 350	Operating Systems			Professional Elective I	PHYS 250 or ENGR 210
	Gen Ed Elective **			General Ed Elective **	

*HVCC's Chem 120 is approved by BU's ECE Dept (only) as replacement/substitute credit for Chem 111 and will be noted as such on the transfer credit evaluation for each student.**

These general education electives can be taken according to the new SUNY guidelines and any transfer work will be used.***No microprocessors course is available, but it can be taken after transfer.

Thomas J. Watson School of Engineering and Applied Science at Binghamton University
BS in Industrial and Systems Engineering-Four-Year Program

Application curriculum code: 1367

HUDSON VALLEY COMMUNITY COLLEGE-2010 requirements

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course	BU Course No.	Course Name	Transfer Course
Math 221	Calculus I (M)	MATH 180	Math 222	Calculus II	MATH 190
Chem 111	Chemical Principles (L)	CHEM 120/121 req'd	Phys 131	General Physics I	PHYS 150
WTSN 111	Discovering Engineering I	SUBSTITUTE ENGR 110	WTSN 112	Discovering Engineering II (J)	SUBSTITUTE ENGR 120
WTSN 103	Tech Communication I	ENG 101 (J)	WTSN 104	Tech Communication II	ENG 102
	General Ed Elective *			General Ed Elective (G)	HIST 100 or 101

Year 2

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course	BU Course No.	Course Name	Transfer Course
Math Elect.	(Math 371 <u>or</u> 323)	MATH 220 OR 210	Math 304	Linear Algebra	MATH 200
Phys 132	General Physics II	PHYS 151	ISE 212	Engineer'g Programming	CISS 110 Java **
ME 273	Engineering Statics	ENGR 210	EECE 260	Circuits	ENGR 225
ISE 231	Human Factors	**See notes	ISE 261	Probabilistic Systems I-	MATH 205
			General Ed Elective		

Year 3-POINT OF TRANSFER

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course	BU Course No.	Course Name	Transfer Course
ISE 311	Enterprise Systems		ISE 320	Optimization & Operations Res.I	
ISE 362	Probabilistic Systems II		ISE 363	Design'g w/ Experiments	
ISE 370	Industrial Automation		ISE 364	Engr'g Econ &Project Mgmt	
	Technical Elective (ISE, ME, EECE, CS, BE)	ENGR 220 or 225		General Ed Elective *	

Year 4

<u>Fall</u>			<u>Spring</u>		
BU Course No.	Course Name	Transfer Course	BU Course No.	Course Name	Transfer Course
ISE 420	Optimization & Operations Res.II		ISE 492	Systems Design Project	
ISE 421	Modeling & Simulation			Technical Elective (ISE, ME, EECE, CS, BE)	
ISE 491	Systems Design			Technical Elective (ISE, ME, EECE, CS, BE)	
	General Ed Elective *			General Ed Elective *	

- * These general education electives can be taken according to the new SUNY guidelines. **Human Factors can be taken after transfer. ** Any additional ISE 212 material can be covered in department after transfer. ***