# PATHWAYS Mathematics (A.S. Degree) FALL 2016-SPRING 2017

## **REMEDIAL SEQUENCE (if required)**

🔲 ESL 1 (8) 🕨	🗌 ESL 2 (6) 🕨	🔲 ESL 3 (6) 🕨	ENG 9 (4)
□ ENG 1 (4) ►	ENG 2 (4)		
□ RDL 1 (4) >>	RDL 2 (6)		
☐ MTH 1 (4) ►	☐ MTH 5 (6) ►	MTH 6 (6)	
CHM 2 (4)			

## **GRADUATION REQUIREMENTS**

CAT-R	CAT-W	CAT-M	
<b>_</b>		<b>—</b>	-
Writing Intensive	e 1	Writing Intensive	2 (

#### FRESHMEN SEMINAR

FYS 11 / OCD 1

<sup>1</sup>A student who takes MTH 30 must use free elective credits for this purpose.

<sup>2</sup>Lab Science I & II must form a sequence, e.g., BIO 11 & BIO 12.

#### Notes:

- The Program has been given a waiver to require its students to take MTH 31 to fulfill Required Area B, BIO 11 or CHM 11 or PHY 11 or PHY 31 to fulfill Required Area C, and BIO 12 or CHM 12 or PHY 12 or PHY 32 to fulfill Flexible Area E. If students transferring into this program complete different course in these areas, they will be certified as having completed the Common Core requirements, but it may not be possible for them to finish their degree within the regular number (60) of credits.
- Students are encouraged to begin Transfer Planning early in their academic careers.
  Please visit the Transfer Planning web site for the timeline as well as information on
  articulation and transfer: <a href="http://www.bcc.cuny.edu/TransferCounseling/">http://www.bcc.cuny.edu/TransferCounseling/</a>

# REQUIRED COMMON CORE

A	English Composition	
ENG 10 OR ENG 11; and ENG 12 OR ENG 14 OR ENG 15 OR ENG 16		6
	Mathematical and Quantitative Reasoning	
□В	MTH 31 Calculus & Analytic Geometry I <sup>1</sup>	4
□c	Life and Physical Sciences <sup>2</sup>	
	Lab Science I BIO 11 or CHM 11 or PHY 11 or PHY 31	4
	Subtotal:	14

## FLEXIBLE COMMON CORE (Course list at: http://www.bcc.cuny.edu/pathways/?p=Flexible-Common-Core)

Students can complete no more than two courses from any one discipline or interdisciplinary field.	
A World Cultures and Global Issues	
B US Experience in its Diversity	3
C Creative Expression	3
D Individual and Society	3
E Scientific World <sup>2</sup> Lab Science II BIO 12 or CHM 12 or PHY 12 or PHY 32	4
Select an additional course from Flexible Core Area A-E.	3
Subtotal:	19

# MAJOR REQUIREMENTS

GPA ≥ 2.0

MTH 32	Analytic Geometry & Calculus II	5	
MTH 33 Analytic Geometry & Calculus III		5	
MTH 42	Linear Algebra	4	
Select two courses from the following (MTH OR CSI):			
MTH 34 Differential Equations & Selected Topics in Advanced Calculus			
MTH 44 Vector Analysis			
MTH 46 Abstract Algebra			
MTH 48 Advanced Calculus			
CSI 35 Discrete Mathematics II		7-8	
ELEC	MTH 30 <sup>1</sup> and/or Free Electives	1-6	
	Subtotal:	27	
	TOTAL:	60	

