



Bethune College FYE Initiatives

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Background

- audience is science/engineering students
- hierarchical curriculum, common curriculum in early years
- sensitive to 1st-year mastery
- sensitive to math mastery

Typical Student

- First in family at university
- Average marks
- Commuter
- Part-time work
- Career-oriented

Problems

- university different from high school
 - no one checks attendance, homework
 - lecturers go fast, don't review
- haven't learned study skills/don't have university-level study skills
- "freedom at last"
- big, impersonal university
- Isolated
- many bomb in 1st term/year

Strategy

- Concentrate of first year and help students transition
- Help them make connections with other students
- Fit their schedule
- Try to make a big university feel small
- Bring services to students

Bethune Interventions

- Peer Mentoring
- Math Background Quiz/Tutorials
- Academic Orientation
- Peer Tutoring
- Supplemental Instruction (PASS)
- Class Reps
- Workshops
- Early Alert

Peer Mentoring

- all incoming students are assigned peer mentor
- Peer mentor in same major, 20:1 ratio
- Grouped by lab
- Contact by email in summer
- Tour leader during Academic Orientation
- Monthly e-mail in fall

Math in First Year (2012-13)

- MATH 1013 3.0: Drop + F = 31%
- MATH 1014 3.0: Drop + F = 36% (only 43% pass both)
- MATH 1019 3.0: Drop + F = 56%
- MATH 1300 3.0: Drop + F = 34%
- MATH 1310 3.0: Drop + F = 27 % (only 48% pass both)
- MATH 1505 6.0: Drop + F = 36%

Source: OIRA

Math Background Quiz

- All incoming students in Science & Lassonde asked to take online quiz before enrollment advising
 - bethune.yorku.ca/math
- Tests Algebra and Trig that they should have covered
- Developed by Kim Maltman (Math & Stats)
- If low score encouraged to take free Math Background Tutorials before classes start

Math Background Tutorials

- Voluntary
- 4 days long, 4 hrs/day
- Weeks of Aug 11, 18, 25
- 20 students/class max, 100 per week
- Led by faculty member or CUPE instructor
- Students go over problem sets and get feedback from instructor
- Repeated during Fall CoCurric Days & Reading Week

Math Background Tutorial Results

- Overall Dropout/Failure rate cut almost in half
- GPA up about 0.5-1

COURSE No.	BT attendees			non-attendees		
	[#]	drop+fail%	GPA	[#]	drop+fail%	GPA
MATH 1013	[68]	17.6	4.0	[775]	45.5	3.5
MATH 1014	[64]	26.5	4.4	[598]	49.2	3.6
MATH 1021	[25]	20.0	5.2	[309]	46.3	4.0
MATH 1025	[20]	35.0	4.1	[337]	48.1	3.3
MATH 1019	[20]	55.0	2.9	[448]	57.6	2.6
MATH 1131	[32]	21.9	5.4	[428]	52.8	3.8
MATH 1200	[20]	30.0	4.4	[123]	38.2	4.2
MATH 1300	[30]	26.7	4.8	[439]	45.6	4.0
MATH 1310	[22]	27.3	3.7	[260]	38.5	4.2
MATH 1505	[58]	20.7	4.9	[1176]	48.0	4.2
MATH 1510	[19]	21.1	4.8	[484]	57.9	3.9
MATH 1520	[24]	20.8	5.4	[343]	48.1	4.3
MATH 2015	[19]	21.1	4.4	[226]	37.6	4.0

Data for 2012-13 courses: Kim Maltman

Academic Orientation

- Welcome, Bethune + University Resources, Success in your Major, University Tour + BBQ
- Connect with BCC, community formation
- Followed by Social Orientation
- 77% attendance of new Science students

Peer Tutoring

- free peer tutoring in core first-year courses
- weekdays 2:30-6:30 pm
- peer tutors: took course in previous year and got A
- Two locations
 - LSB 103: Biology & Chemistry
 - BC 102F: CS, Math, Physics

Supplemental Instruction (PASS)

- “study groups on training wheels”
- Voluntary, regularly scheduled, informal, review study sessions
- 2 x 90 min/week
- For “problem” courses (>30% drops, Fs, Ds)
- Led by upper-year student leaders:
 - Took course and did well and act like model students
 - Not a TA (don’t re-lecture or solve assignments)
 - Paid 10 hrs/week
 - Trained (1-2 days) by certified SI supervisor

Courses (F13)

- BIOL 2020, BIOL 2040
- CHEM 1000, CHEM 2020
- CSE 1020
- MATH 1013, MATH 1300, MATH 1505
- PHYS 1010, PHYS 1420

SI Results (FW11)

- Overall: 1 grade point higher
- The higher the attendance, the bigger the impact

Course	Δ GPA	(attendees/total)
BIOL 1000:	+1.3	(69/1334)
BIOL 1001:	+0.6	(85/948)
CHEM 1000:	+1.8	(164/1059)
CHEM 1001:	+1.1	(93/795)
CHEM 2020:	+1.3	(136/530)
MATH 1013:	+1.5	(97/561)
MATH 1014:	+0.4	(63/375)
MATH 1025:	+1.3	(16/294)
MATH 1505:	+0.5	(166/816)
PHYS 1410:	+1.3	(11/389)

source: Mazen Hamadeh

Class Reps

- In Nat Sci for over decade
- CR is student enrolled in class
- Liaison between instructor and students in class
- Provide feedback and any concerns that arise to the attention of course instructor

Weekly Workshops

- Every Wednesday at 2:30 and 5:30 pm
- Learning Skills
- Career Centre
- SOS Professional School workshops

Early Alert Pilot

- First-year instructors note who did badly on first midterm
- Sticky note on quiz, list of failing students to Bethune

Interventions:

- peer mentors contact, direct to resources
- Faculty mentors (Lassonde)
- Learning Skills workshops during Fall Cocurric Days
- Math Background Tutorials during Fall Cocurric Days
- bethune.yorku.ca/backontrack

Critical Mass of Services at Bethune

- Study space, club space, social space, cafeteria
- SOS Peer Advising
- Peer Tutoring
- Study Groups/PASS
- Bethune Writing Centre
- Career Centre Advising
- Wednesday Workshops
- Academic Advising

Our Peer Leaders (FW13)

- 21 Peer Advisors
- 57 Peer Mentors
- 21 Grad Peer Mentors
- 47 Peer Tutors
- 11 SI Leaders
- 49 Class Reps
- 5 Science Student Ambassadors (Lassonde separate)

Supporting Peer Leaders

- Training
 - bethune.yorku.ca/sos/training
- Biweekly meetings
- Letters of recommendation
- Work-study/CLAY for those with 10 hr/week
- Recognition on transcript:
 - BC 3000 0.0: Peer Leadership
 - BC 3010 3.0: Advanced Peer Leadership
 - BC 3900 0.0: Peer Leadership Practicum

Community ...

... is where they know your name and they miss you when you're not there.

Isaac Sacks