

Introduction to MBA Elective Course Priority Registration

**Marriott School of Management
Brigham Young University**

rev. 10/15/2014, 3/12/2012, 10/13/2011

Overview

The MBA office has decided that after years of complaints from students they will revise the course registration system to avoid...

- students staying up till midnight...
- with three web browsers open at the same time...
- typing as fast as they can!

Instead, providing a fairer priority registration system based on student preferences.



Basics of the priority registration system

- Course bidding system.
- Students rank courses.
- Students allocate “points” to each class.
- Points spent on courses in one round will not be available in subsequent rounds.

Lets see how it will work...

Give it a try

Go to...

<http://services.byu.edu/mba>

Enter BYU NetID and password

You should see something like this...

Preferred electives for Matt Walsman. [logout](#)

This system allows you to indicate your preferences for elective courses. Although we cannot guarantee enrollment in any courses, providing your thoughtful preferences will help us do the best we can.

1. Scroll down to select courses from the list at the bottom.
2. Adjust the ranking of your selections, putting your most desired course at the top.
3. Assign bid points as desired. You currently have 1000 points to bid. You can bid up to 1000 for **each** selected elective (thus the total points can be greater than 1000).
4. Bidding will take place in multiple rounds. Each student gets only one course each round.
5. In each round we will try to meet your top-ranked choice. If the course becomes full, students bidding more points will get in first.
6. If we are unable to place you in your top-ranked choice, we will attempt to place you in your second choice, and so forth. (That is why it is good to include some alternatives on your list.)
7. In a given round, if the course you are enrolled in becomes full then for each student who gets into the course that round we will be deducted the number of points of the first student who did NOT get into the course.
8. In a given round, if the course you are enrolled in does not become full, we will not deduct any of your points.
9. Any points left over after the first round can be used in subsequent rounds.
10. After each round you are free to change your list or bid points if you choose to do so.

Courses you are already enrolled in

You are not yet enrolled in any courses.

Courses you would like to be enrolled in

Rank	Preferred electives for Matt Walsman	Bid Points
	<p><i>No courses selected yet for Matt Walsman.</i></p> <p>(Add courses to your list by selecting courses below.)</p>	

Read the instructions.
Give it a try.

How the system works

MaxBid points

eBay Automatic Bidding
annthecan gets it for \$21!

eBay bidder	Maximum Bid
annthecan	\$25.50
bobdog	\$20.01
carl934	\$20.00
deb_idaho	\$18.00



Auto bid
(\$1 increment)

\$20

MBA Priority registration
Highest “not in” MaxBid = 500

MBA student	MaxBid points
Ann	800 in cost=500
Bob	501 in cost=500
Carl	500 not in
Deb	300 not in



only 2 available seats



Why use a MaxBid auction?

Called “generalized second-price auction”

Based on “Vickrey auction”

Let v_i be bidder i 's value for the item. Let b_i be bidder i 's bid for the item.

Bottom line: The MaxBid approach...

- provides tremendous incentive to bid true preferences

The strategy of overbidding is dominated by bidding truthfully. Assume that bidder i bids

$b_i > v_i$.
bidding.

If $\max_{j \neq i} b_j < v_i$ then the bidder would win the item with a truthful bid as well as an overbid.

The bid's maximum is not changing the payoff so the two strategies have equal payoffs in this case.

If $\max_{j \neq i} b_j > b_i$ then the bidder would lose the item either way so the strategies have equal payoffs in this case.

If $v_i < \max_{j \neq i} b_j < b_i$ then only the strategy of overbidding would win the auction. The

Your optimal bidding strategy is to bid according to your true preferences.

Gory details...

- The system tries to get you in your top ranked class per round, based on demand and how many MaxBid points you allocated.
- If you fail to get into your first choice in a particular round then your subsequent choice moves up.
 - However, your subsequent choice is still subject to your specified MaxBid points.
- The cost of getting into a class is the greater of:
 - the minimum-bid amount (100 points)
 - the bid of the first student who did NOT get into that course
- You will get one and only one class each round (unless your preference list runs dry).
- Let's look at an example...

Example #1

These are the electives:

Available Courses	Seats
MBA 101	2
MBA 102	2

Ann wants these classes:

Rank	Ann's Choices	Bid Points
1	MBA 101	800
2	MBA 102	500

Bob wants these classes:

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Example #1



Two rounds of priority registration...

- **Round 1**

Ann gets in MBA 101

Bob gets in MBA 102

- **Round 2**

Ann gets in MBA 102

Bob gets in MBA 101

Available Courses	Seats
MBA 101	2
MBA 102	2

Rank	Ann's Choices	Bid Points
1	MBA 101	800
2	MBA 102	500

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Example #2

- Four students.

Available Courses	Avail Seats
MBA 101	2
MBA 102	3

Rank	Ann's Choices	Bid Points
1	MBA 101	800
2	MBA 102	500

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Rank	Carl's Choices	Bid Points
1	MBA 101	700
2	MBA 102	350

Rank	Deb's Choices	Bid Points
1	MBA 101	500
2	MBA 102	300

Example #2

- First round:

Available Courses	Avail Seats
MBA 101	2 0
MBA 102	2 2

Rank	Bid	Choice	Who
1	800	MBA 101	Ann
1	700	MBA 101	Carl
1	600	MBA 102	Bob
1	550	MBA 101	Deb
2	600	MBA 101	Bob
2	500	MBA 102	Ann
2	350	MBA 102	Carl
2	300	MBA 102	Deb

Rank	Ann's Choices	Bid Points
1	MBA 101	800
2	MBA 102	500

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Rank	Carl's Choices	Bid Points
1	MBA 101	700
2	MBA 102	350

Rank	Deb's Choices	Bid Points
1	MBA 101	550
2	MBA 102	300

Example #2

Deb did not get in MBA 101, so the cost of MBA 101 in round 1 is 550 points.

Rank		Choice	Who
1	800	MBA 101	Ann
1	700	MBA 101	Carl
1	600	MBA 102	Bob
1	550	MBA 101	Deb
2	600	MBA 101	Bob
2	450 800	MBA 102	Ann
2	350	MBA 102	Carl
2	300	MBA 102	Deb

Available Courses	Avail Seats
MBA 101	2 0
MBA 102	2 2

for round 2

Rank	Ann's Choices	Bid Points
1	MBA 101	800
2	MBA 102	800 450

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Rank	Carl's Choices	Bid Points
1	MBA 101	700
2	MBA 102	350 ok

for round 2

Rank	Deb's Choices	Bid Points
1	MBA 101	550
2	MBA 102	300

Example #2

Deb's second ranked course now becomes her first ranked course...

Available Courses	Avail Seats
MBA 101	2 0
MBA 102	8 2

Rank	Bid	Choice	Who
1	800	MBA 101	Ann
2	700	MBA 101	Carl
3	600	MBA 102	Bob
4	550	MBA 101	Deb
5	600	MBA 101	Bob
6	450 800	MBA 102	Ann
7	350	MBA 102	Carl
2 1	300	MBA 102	Deb

Rank	Ann's Choices	Bid Points
1	MBA 101	800
→ 2	MBA 102	500 450

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Rank	Carl's Choices	Bid Points
1	MBA 101	700
→ 2	MBA 102	350 ok

Rank	Deb's Choices	Bid Points
1	MBA 101	550
2	MBA 102	300

Example #2

And the list is re-sorted by rank and bid points.

Available Courses	Avail Seats
MBA 101	2 0
MBA 102	8 1

Rank	Bid	Choice	Who
1	800	MBA 101	Ann
1	700	MBA 101	Carl
1	600	MBA 102	Bob
1	550	MBA 101	Deb
2 1	300	MBA 102	Deb
2	600	MBA 101	Bob
2	450 800	MBA 102	Ann
2	350	MBA 102	Carl

Rank	Ann's Choices	Bid Points
1	MBA 101	800
→ 2	MBA 102	550 450

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Rank	Carl's Choices	Bid Points
1	MBA 101	700
→ 2	MBA 102	350 ok

Rank	Deb's Choices	Bid Points
1	MBA 101	550
2	MBA 102	300

Example #2

• First round:

Round 1 over. MBA 102 did not fill up so cost to get in 102 is 100 points.

Available Courses	Avail Seats
MBA 101	2 0
MBA 102	8 1

Rank	Bid	Choice	Who
1	800	MBA 101	Ann
1	700	MBA 101	Carl
1	600	MBA 102	Bob
1	550	MBA 101	Deb
2 1	300	MBA 102	Deb
2	600	MBA 101	Bob
2	450 800	MBA 102	Ann
2	350	MBA 102	Carl

Rank	Ann's Choices	Bid Points
1	MBA 101	800
→ 2	MBA 102	550 450

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Rank	Carl's Choices	Bid Points
1	MBA 101	700
→ 2	MBA 102	350 ok

Rank	Deb's Choices	Bid Points
1	MBA 101	550
2	MBA 102	300

Example #2

• Second round:

Available Courses	Avail Seats
MBA 101	2 0
MBA 102	8 0

Rank	Bid	Choice	Who
1	800	MBA 101	Ann
1	700	MBA 101	Carl
1	600	MBA 102	Bob
1	550	MBA 101	Deb
2 1	300	MBA 102	Deb
2	600	MBA 101	Bob
2	450 500	MBA 102	Ann
2	350	MBA 102	Carl

Rank	Ann's Choices	Bid Points
1	MBA 101	800
2	MBA 102	500 450

Rank	Bob's Choices	Bid Points
1	MBA 102	600
2	MBA 101	600

Rank	Carl's Choices	Bid Points
1	MBA 101	700
2	MBA 102	350 ok

Rank	Deb's Choices	Bid Points
1	MBA 101	550
2	MBA 102	300

Remember...

- Course requests are considered in rank order.
- High bidders will get in courses first.
- The cost getting into a class is the greater of:
 - the minimum-bid amount (100 points)
 - the bid of the first student who did NOT get into that course
- Any unused points get returned for subsequent rounds.
- You will have opportunities to adjust your points after each round, but do not need to.

If you want to participate...

1. Log in at <http://services.byu.edu/mba>
2. Select and rank your desired courses, assigning MaxBid points, before the priority registration date.
3. Log out.

The actual MBA priority registration will take place in 151 TNRB on that date.

You do NOT need to attend the priority registration meeting to participate

- All MaxBid points entered before that time will have equal consideration (no "best" or "average").
- If you would like to attend that meeting you are welcome (even if you did not use MaxBid points for those courses).
- If you correctly specified your MaxBid points initially, you should not see a "just point to the web" message.

If you not want to participate...

Regular MBA registration reportedly begins the Monday following at 12:00am.

However, MBA Electives will require a registration flag for the first week of registration.

Registration flags will be given to students with winning bids from priority registration.

After the first week of registration, any student can vie for any available space in MBA courses.

Students with registration flags must use them the first week of registration, or lose the advantage.

Frequently Asked Questions

- What is keeping me from bidding 1000 for every course and seeing what the market dictates?
- Answer: Nothing. You may bid 1000 points every round but you do so at a risk. If all 1000 points are required to get a course you will not have any remaining points for subsequent rounds.

Frequently Asked Questions

- What if many students bid the same amount for a course and the course fills up? Who gets in the course?
- Answer: Each round the students are given a tie-break ordering. Those students with a higher tie-break will get in that course. The tie-break ordering is re-generated every round.

Frequently Asked Questions

- What if there are two sections of a course, but I only want to get in one of the two?
- Answer: If you put two sections of the same course on your preference list, as soon as you are granted one of the sections the other section will automatically be excluded from your list.
- This does not apply to MBA 693R classes, where the “R” means repeatable. (You can take multiple 693R class in a given semester.)

Questions?
