## The Myth of Grades in Game Theory

I understand that there is a myth floating around that ECON students do poorly in ECON 439 because there are so many students from other departments.

This is not true, no matter how you look at it.

The easiest way to see this is to look at Table 1 below, the $\%$ of ECON out of all students who get a letter grade of X or higher. As you can see it is almost equivalent to the percentage of ECON students in the class (53\%) for almost any letter grade.

The one difference is the percentage of students who either withdraw or get an F or an FX. This is because since this class is an ECON class more marginal students from ECON take this class than from other departments.

Because of these students, if you look at the \% of ECON students who got a letter grade of X or higher out of all ECON students (the third table below) you will see that the average ECON student gets a B- or higher. This compares to the class average of a B . But even this difference is small, so there really is no way to say that ECON students do worse than average in Game Theory. (Notice that the average student should get a B+/B, but I calculate this average after taking out the students who are getting an FX or have withdrawn.)

The basic message here is that if you are a marginal student or are not willing to work on Game Theory then you shouldn't take it. Otherwise there is no legitimate reason to not take it based on your expected grade.

This is a hard class, and I do not encourage students to take it who are looking for an easy grade, but if you are a good student you will be rewarded as highly in this class as any.

The data set for this comparison is all students who took ECON 439 with me from 2007-1 to 2012-1. This is 316 students over 7 semesters. Do not expect this table to be updated with new data; my grading policy will not change.

TABLE 1, Cumulative out of All Students

| Out of All Students | Percentage | Total ECON | Total |
| :--- | ---: | ---: | ---: |
| \% of A | $52 \%$ | 24 | 46 |
| \% of A- or higher | $46 \%$ | 42 | 92 |
| \% of B+ or higher | $45 \%$ | 62 | 138 |
| \% of B or higher | $46 \%$ | 78 | 168 |
| \% of B- or higher | $47 \%$ | 87 | 187 |
| \% of C+ or higher | $46 \%$ | 94 | 205 |
| \% of C or higher | $48 \%$ | 107 | 223 |
| \% of C- or higher | $48 \%$ | 115 | 238 |
| \% of D+ or higher | $48 \%$ | 118 | 246 |
| \% of D or higher | $50 \%$ | 133 | 264 |
| \% of All Students | $53 \%$ | 168 | 316 |

TABLE 2, Marginal out of All Students

| Out of All Students | Percentage | Total ECON | Total |
| :--- | ---: | ---: | ---: |
| \% of A | $52 \%$ | 24 | 46 |
| \% of A- | $39 \%$ | 18 | 46 |
| \% of B+ | $43 \%$ | 20 | 46 |
| \% of B | $53 \%$ | 16 | 30 |
| \% of B- | $47 \%$ | 9 | 19 |
| \% of C+ | $39 \%$ | 7 | 18 |
| \% of C | $72 \%$ | 13 | 18 |
| \% of C- | $53 \%$ | 8 | 15 |
| \% of D+ | $38 \%$ | 3 | 8 |
| \% of D | $83 \%$ | 15 | 18 |
| \% of W, F, or FX | $67 \%$ | 35 | 52 |
| \% of All Students | $53 \%$ | 168 | 316 |

TABLE 3, Cumulative out of ECON

| Out of ECON | Percentage | Total ECON |
| :--- | ---: | ---: |
| \% of A | $14 \%$ | 24 |
| \% of A- or higher | $25 \%$ | 42 |
| \% of B+ or higher | $37 \%$ | 62 |
| \% of B or higher | $46 \%$ | 78 |
| \% of B- or higher | $52 \%$ | 87 |
| \% of C+ or higher | $56 \%$ | 94 |
| \% of C or higher | $64 \%$ | 107 |
| $\%$ of C- or higher | $68 \%$ | 115 |
| \% of D+ or higher | $70 \%$ | 118 |
| $\%$ of D or higher | $79 \%$ | 133 |
| Total |  | 168 |

TABLE 4, Marginal out of ECON

| Out of ECON | Percentage | Total ECON |
| :--- | ---: | ---: |
| \% of A | $14 \%$ | 24 |
| \% of A- | $11 \%$ | 18 |
| \% of B+ | $12 \%$ | 20 |
| $\%$ of B | $10 \%$ | 16 |
| \% of B- | $5 \%$ | 9 |
| $\%$ of C+ | $4 \%$ | 7 |
| $\%$ of C | $8 \%$ | 13 |
| $\%$ of C- | $5 \%$ | 8 |
| $\%$ of D+ | $2 \%$ | 3 |
| \% of D | $21 \%$ | 15 |
| $\%$ of $\mathrm{W}, \mathrm{F}$, or FX |  | 35 |
| Total |  | 168 |

