STUDENT RATINGS AND COMMENTS Autumn 2006 through Autumn 2008 William Bricken

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STUDENT RATINGS

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COMMENTARY

All course numbers have been standardized to reflect new course numbering as of Academic Year 2008-2009.

COMMENTS AND ANALYSIS

GENERAL

Within the limits of psychometric quality,

-- It would be inappropriate to comment on specific questions, since none have significant variations.

-- There is a slight tendency toward improvement, however this tendency is not significant.

-- Performance ratings are remarkably consistent over time and over courses.

-- Student satisfaction level is not a problem. Overall rating GPA = 3.7, from 231 students over 20 courses.

SPECIFIC

-- Math 99, Intermediate Algebra is my most successful course.

-- Ratings are the same for first and second time teaching a course. There is a slight improvement for teaching a course for the third and following times, however this observation is confounded with the type of course, since only M90, M99, and M102 were taught more than twice.

-- When responses to each question are averaged over the 20 courses, they range from 3.5 on Questions 10 (presented course material in different ways) and 19 (the textbook was useful), to 3.9 on Questions 8 (willing to assist me) and 15 (treated student with respect). On face validity, the highly ranked questions express a "respect" idea, which is probably associated with my individualization of instruction, and with my relatively untroubled personality. The lower ranked questions express a "course support materials" idea. Since textbooks were initially not of my choosing, and since math presentation materials in a noncomputer classroom are limited to board-work, these rankings can be addressed by changing the teaching environment. We have done this with the MathLab. -- I am rather puzzled about how to address the request for different teaching methods in math, not because they do not exist, but because they are already available to all students via the support DVD in the textbook and via Internet resources. There's an element of students transferring responsibility for the context of their learning in this. The difficulty with presenting a variety of content modalities is that we know from research that in math, multiple modalities confuse as much as help. Other content modalities for math also require an inordinate amount of time, time that is not available within the current curriculum goals.

DIFFICULTIES WITH THE DATA

-- The sample size and the number of courses provides strong confidence in the main result (i.e. student satisfaction is not a problem). However, the numerical results are so homogeneous (there is very little variation over courses, questions, or quarters) that no valid comparisons between courses, questions, or quarters should be made, other than to say that they are all the same.

-- The questions themselves are bias toward particular teaching styles, so that certain questions distort the results. For example, Math 107 was taught without a textbook, so Question 19, which asks whether or not the textbook was useful, is a source of random variation rather than a source of information. In general, although the questions about quality of teaching appear to be reasonable, they do not necessarily measure "good teaching". Rather they measure a particular style of teaching that is accepted in the USA as good practice. It should be emphasized that these intuitive statements of good practice *are not* supported by educational research.

For example, something as obvious as Question 15: "treated students with respect", would be seen as poor teaching in China, where "respect" is conferred from student to teacher, but not from teacher to student. Many of the desirable qualities in the questionnaire are perhaps good as rules of friendly interpersonal relations, but they are not good as rules to guide teaching style. Often teaching requires the instructor to be "not a good guy", to at times be stern, unlikeable, stubborn, and invariant in style. These qualities often come with complete expertise, and are necessary to move some students from average to exceptional performance. To express this idea in another way: the qualities measured by several of the questions assure only average performance by student and instructor.

-- The psychometric quality of the data is also suspect. These concerns were included in the Second Tenure Report, and are included below for convenience.

COMMENTS ON PSYCHOMETRIC TECHNIQUE (second tenure period)

The Student Evaluation Sheets used at the end of each course suffer from a lack of psychometric design. This situation is not unique, since most questionnaires are developed without taking into consideration how measurement works. The net result is that it makes little sense to formally analyze the results, or even to compare the results across different courses.

The problems can be easily corrected by a computer program that reports results using appropriate statistical techniques. Here are the main areas for improvement, in order of importance.

Standardization of Ratings

Both raw scores (tallies) and percentages are *non-comparable*. That is, we cannot make meaningful statements that compare the percentage result on one question to the percentage result on a different question. For example, if 50% of responses to a particular question from one class is "4" and 30% of responses to the same question from another class is "4", it is inaccurate to say that the first class has a "higher" rating than the second. The psychometric issue is that the comparison of measurements (and percentages) is anchored to the *variation of measurement* across students, questions, classes, and the set of courses for which the measurements are taken. In the above example, the significance of a "4" rating depends upon the total number of "4" ratings to all questions. If a "4" occurs 80% of the time in the first class, but only 10% of the time in second class, then the first class as a whole is far more generous with the "4" rating. The variation from the norm of +20% in the second class (30% - 10%) is more positive than the variation from the norm of -30% in the first class (50% - 80%), making the 30% rating "higher" than the 50% rating.

Suffice it to say that, for comparison of ratings to be valid, it is necessary to put all scores on the same comparative basis, a mathematical transformation called standardization.

Minimization of Questions

It has been consistently shown that people differentiate only three or four qualities in ratings. LWTC asks 20 questions, but these questions themselves do not elicit different responses. Have a look at the raw scores; many students just go down one column, answering the same for all questions. This means that, in their minds, the questions are not different! The most elegant solution is to ask just a few essential questions. This makes the measurement process more meaningful, less tedious, and less illusionary. A more sophisticated technique (not necessary for LWTC use of ratings) is to perform a mathematical technique called factor analysis, which empirically groups questions into clusters that measure the same quality.

Minimization of Categories

It is admirable that we provide only four choices for each question. Two would be better. The issue here is: What are we trying to assess? A general rule is to ask only for information that is used, that is important. To my knowledge, there is no administrative process that actually uses the difference between a "4" rating and a "3" rating, so the distinction is pragmatically meaningless.

Our questions are basically looking for an approve/disapprove distinction. The (artificial) distinction between "strongly approve" and "approve" just serves to obscure what we want to know. This is also confounded with individual student answering styles. The tendency of individuals to have preferred worldviews, with regard to ratings, is much stronger than the tendency of individuals to make fine grain distinctions between "++" and "+". So the ratings over four categories tell us more about how people respond to rating questions than about the questions themselves.

Condensation of Written Responses

Use one written response question, something like "Additional comments (good points, bad points, important messages, etc.)" The questions we ask elicit a type of forced response: what people end up doing is to either not write anything, or to write template garbage. The important point (again) is that it is only meaningful to gather data that makes a difference.

Summary

There are some simple psychometric principles to follow in constructing questionnaires. That few people are familiar these principles is no excuse to ignore them. Importantly, each principle can be directly observed simply by looking at the responses!

1) Ask only what you want to know about. Before asking, ask yourself what each response would mean. Ask only questions for which different responses will result in different (administrative) actions.

- 2) Ask minimally.
- 3) Respect the nature of statistical results.

CUMULATIVE RATINGS

STUDENT RATINGS -- CUMULATIVE OVER ALL QUESTIONS

This data summarizes ratings data over time and course. The grand average is the most important statistic in the entire analysis. Three out of four students "strongly agree" with each of the rating qualities. The remaining one out of four "agree".

QUARTER AVERAGES

| <u>Quarter</u> | <u>N</u> | 4 3 | 2 | 1 | <u>Average</u> |
|----------------|----------|---------|------|-----|----------------|
| Autumn 2008 | | NOT AVA | ILAE | BLE | |
| Summer 2008 | 43 | 75 23 | 2 | - | 3.7 |
| Spring 2008 | 53 | 71 25 | 4 | 0 | 3.7 |
| Winter 2008 | 18 | 84 15 | 1 | - | 3.8 |
| Autumn 2007 | n/a | | | | |
| Summer 2007 | n/a | | | | |
| Spring 2007 | 25 | 72 25 | 3 | 0 | 3.7 |
| Winter 2007 | 33 | 78 19 | 2 | 1 | 3.7 |
| Autumn 2006 | 43 | 64 35 | 1 | - | 3.6 |

COURSE AVERAGES

| <u>Course</u> | <u>Repetitions</u> | <u>N</u> | 43 | 2 | 1 | <u>Average</u> |
|---------------|--------------------|----------|-------|---|---|----------------|
| M80 | 2 | 22 | 65 31 | 3 | 1 | 3.6 |
| M90 | 9-4 = 5 | 53 | 75 23 | 2 | - | 3.7 |
| M99 | 8-3 = 5 | 59 | 84 15 | 1 | - | 3.8 |
| M102 | 5 - 1 = 4 | 56 | 70 28 | 2 | 0 | 3.7 |
| M107 | 2 | 19 | 76 17 | 5 | 2 | 3.7 |
| M141 | 1 | 9 | 65 29 | 6 | - | 3.6 |
| M146 | 1 | 13 | 64 35 | 1 | - | 3.6 |

GRAND AVERAGE

| All | 28 - 8 = 20 | 231 | 75 23 2 0 | 3.7 |
|-----|-------------|-----|-----------|-----|
| | | | | |

CUMULATIVE RATINGS OVER ALL QUESTIONS -- BY COURSE

This data summarizes ratings for each course that I taught. Of the 20 courses with ratings results, rating GPA ranges from 3.5 to 3.9.

| <u>Course</u> | <u>Quarter</u> | | <u>N</u> | 4 | 3 | 2 | 1 | <u>Average</u> |
|---------------|----------------|------|----------|-----|-----|-----|-----|----------------|
| M99 | Autumn | 2008 | | NOT | AVA | ILA | BLE | |
| M102 | Autumn | 2008 | 7 | 72 | 27 | 1 | _ | 3.7 |
| M107 | Autumn | 2008 | 9 | 84 | 7 | 6 | 3 | 3.8 |
| | | | | | | | | |
| M99 | Summer | 2008 | 9 | 87 | 11 | 2 | - | 3.8 |
| M102morn | Summer | 2008 | 20 | 65 | 32 | 3 | - | 3.6 |
| M102avo | Summer | 2008 | 14 | 73 | 26 | 1 | - | 3.7 |
| M90 | Spring | 2008 | 13 | 77 | 18 | 5 | 0 | 3.7 |
| M99 | Spring | 2008 | 15 | 82 | 16 | 2 | 0 | 3.8 |
| M102 | Spring | 2008 | 15 | 57 | 37 | 5 | 1 | 3.5 |
| M107 | Spring | 2008 | 10 | 68 | 27 | 4 | 1 | 3.6 |
| M90avo | Winter | 2008 | n/a | | | | | |
| M90eve | Winter | 2008 | 7 | 92 | 7 | 1 | - | 3.9 |
| M99 | Winter | 2008 | 11 | 76 | 22 | 2 | 0 | 3.7 |
| M90avo | Autumn | 2007 | n/a | | | | | |
| M90eve | Autumn | 2007 | n/a | | | | | |
| M99 | Autumn | 2007 | n/a | | | | | |
| | | | | | | | | |
| M90 | Summer | 2007 | n/a | | | | | |
| M99 | Summer | 2007 | n/a | | | | | |
| M102 | Summer | 2007 | n/a | | | | | |
| M90 | Spring | 2007 | 3 | 67 | 33 | - | - | 3.7 |
| M99 | Spring | 2007 | 13 | 83 | 15 | 2 | 0 | 3.8 |
| M141 | Spring | 2007 | 9 | 65 | 29 | 6 | - | 3.6 |
| M80 | Winter | 2007 | 9 | 73 | 21 | 4 | 2 | 3.6 |
| M90 | Winter | 2007 | 13 | 70 | 27 | 3 | - | 3.7 |
| M99 | Winter | 2007 | 11 | 90 | 10 | - | - | 3.9 |
| M80 | Autumn | 2006 | 13 | 58 | 40 | 2 | - | 3.6 |
| M90 | Autumn | 2006 | 17 | 68 | 31 | 1 | - | 3.7 |
| M146 | Autumn | 2006 | 13 | 64 | 35 | 1 | - | 3.6 |
| | | | | | | | | |

Difference

CUMULATIVE RATINGS OVER ALL QUESTIONS -- BY COURSE REPETITION

This data shows rating consistency over repeated teaching of the same course. There is slight tendency toward improvement with repeated teaching.

FIRST TIME TEACHING AVERAGES

| <u>Course</u> | <u>Quarter</u> | <u>N</u> | 4 3 | 2 | 1 | <u>Average</u> | |
|---------------|----------------|----------|-------|---|---|----------------|-------------|
| M80 | Autumn 2006 | 13 | 58 40 | 2 | _ | 3.6 | |
| M90 | Autumn 2006 | 17 | 68 31 | 1 | - | 3.7 | |
| M99 | Winter 2007 | 11 | 90 10 | - | - | 3.9 | |
| M102 | Summer 2007 | n/a | | | | | |
| M107 | Spring 2008 | 10 | 68 27 | 4 | 1 | 3.6 | |
| M141 | Spring 2007 | 9 | 65 29 | 6 | - | 3.6 | (once only) |
| M146 | Autumn 2006 | 13 | 64 35 | 1 | - | 3.6 | (once only) |

SECOND TIME TEACHING AVERAGES

M80 Winter 2007 9 73 21 4 2 3.6 0 Winter 2007 M90 13 70 27 3 -3.7 0 Spring 2007 -.1 M99 13 83 15 2 0 3.8 M102 Spring 2008 15 57 37 5 1 3.5 n/a 84 7 6 3 M107 Autumn 2008 9 3.7 +.1

REPETITION AVERAGES (THIRD and following repetitions)

| <u>Course</u> | <u>Repetitions</u> | <u>N</u> | 4 3 | 2 | 1 | <u>Average</u> | <u>Difference</u> |
|---------------|--------------------|----------|-------|---|---|----------------|-------------------|
| M90 | 7-4 = 3 | 23 | 79 19 | 2 | 0 | 3.8 | +.1 |
| M99 | 5-2 = 3 | 35 | 82 16 | 2 | - | 3.8 | 0 |
| M102 | 3 | 41 | 70 28 | 2 | 0 | 3.7 | +.2 |

REPETITION AVERAGES (all courses taught more than once)

| <u>Repetitions</u> | <u>N</u> | 43 | 2 | 1 | <u>Average</u> | <u>Difference</u> |
|---|----------------|-------------------------|---|---|-------------------|-------------------|
| First time Second time >2 repetitions | 51 59 99 | 71 27 74 21 77 21 | 4 | 1 | 3.7 3.7 3.8 | 0 +.1 |

CUMULATIVE QUESTION RATINGS

RATINGS QUESTION AVERAGES -- BY QUARTER

This data summarizes each rating question by quarter. Consistency dominates these results.

Three 5-unit courses per quarter. Responses to 20 questions, rating average.

| | N=43 A06 | N=33 W07 | N=25 S07 | n/a n/a Su07 A07 | N=18 W08 | N=53 S08 | N=43 Su08 | N= A08 | GRAND AVERAGE |
|-----------------|-------------|-------------|-------------|---------------------|-------------|-------------|--------------|-----------|------------------|
| Question | AUU | wor | 102 | JUUT AUT | WUO | 000 | 5000 | AUO | AVENAGE |
| well-prepared | 3.6 | 3.8 | 3.6 | | 3.8 | 3.7 | 3.8 | NOT | 3.7 |
| clear goals | 3.5 | 3.9 | 3.7 | | 3.9 | 3.6 | 3.7 | READY | 3.7 |
| syllabus | 3.5 | 3.8 | 3.8 | | 3.9 | 3.6 | 3.7 | WHEN | 3.7 |
| explain grade | 3.6 | 3.8 | 3.6 | | 3.9 | 3.7 | 3.7 | TENURE | 3.7 |
| on time | 3.6 | 3.7 | 3.7 | | 3.9 | 3.8 | 3.8 | BOOK | 3.8 |
| knowledge | 3.8 | 3.8 | 3.8 | | 4.0 | 3.8 | 3.8 | WAS | 3.8 |
| enthusiasm | 3.6 | 3.7 | 3.8 | | 4.0 | 3.8 | 3.8 | SUBMITTE | 3.8 |
| assist | 3.8 | 3.9 | 3.9 | | 4.0 | 3.8 | 3.8 | | 3.9 |
| examples | 3.5 | 3.6 | 3.7 | | 3.8 | 3.6 | 3.7 | | 3.6 |
| different ways | 3.4 | 3.4 | 3.5 | | 3.6 | 3.5 | 3.8 | | 3.5 |
| different needs | 3.6 | 3.5 | 3.6 | | 3.7 | 3.5 | 3.6 | | 3.6 |
| participation | 3.6 | 3.6 | 3.5 | | 3.6 | 3.6 | 3.7 | | 3.6 |
| listened | 3.7 | 3.8 | 3.9 | | 3.7 | 3.7 | 3.8 | | 3.8 |
| good feeling | 3.7 | 3.8 | 3.8 | | 4.0 | 3.7 | 3.9 | | 3.8 |
| respect | 3.9 | 3.9 | 4.0 | | 4.0 | 3.9 | 3.9 | | 3.9 |
| related tests | 3.6 | 3.8 | 3.6 | | 3.9 | 3.7 | 3.8 | | 3.7 |
| careful tests | 3.5 | 3.6 | 3.5 | | 3.9 | 3.6 | 3.7 | | 3.6 |
| timely tests | 3.6 | 3.6 | 3.6 | | 3.8 | 3.7 | 3.7 | | 3.7 |
| useful | 3.4 | 3.6 | 3.6 | | 3.8 | 3.3 | 3.4 | | 3.5 |
| I learned | 3.5 | 3.6 | 3.6 | | 3.7 | 3.5 | 3.6 | | 3.6 |
| AVERAGE | 3.6 | 3.7 | 3.7 | | 3.8 | 3.7 | 3.7 | | 3.7 |

RATINGS QUESTION CUMULATIVE -- BY COURSE

This data sums up courses taught more than once by presenting averages over all times a particular course was taught. Again, consistency dominates the data.

Nine quarters (Autumn 2006 - Autumn 2008), only courses taught more once. Responses to 20 questions, in percent of respondents.

| | M80 (2) N= | =22 | M90 (5) N=53 | M99 (5) N=59 |
|-----------------|------------|------------|--------------------|--------------------|
| Question | 4 3 2 1 | <u>Ave</u> | 4 3 2 1 <u>Ave</u> | 4 3 2 1 <u>Ave</u> |
| well-prepared | 59 35 6 | 3.5 | 67 31 2 3.6 | 80 18 2 3.8 |
| clear goals | 62 34 4 | 3.6 | 79 20 1 3.8 | 83 17 3.8 |
| syllabus | 70 30 | 3.7 | 77 23 3.8 | 85 15 3.8 |
| explain grade | 70 30 | 3.7 | 73 27 3.7 | 89 11 3.9 |
| on time | 70 30 | 3.7 | 85 13 2 3.8 | 90 10 3.9 |
| knowledge | 70 30 | 3.7 | 85 15 3.8 | 93 7 3.9 |
| enthusiasm | 66 34 | 3.7 | 79 19 2 3.8 | 90 9 1 3.9 |
| assist | 81 15 4 | 3.8 | 91 7 2 3.9 | 99 1 4.0 |
| examples | 65 25 10 | 3.6 | 80 15 3 2 3.7 | 80 16 4 3.8 |
| different ways | 42 40 13 5 | 3.2 | 51 40 9 3.4 | 70 20 10 3.6 |
| different needs | 68 21 6 5 | 3.5 | 76 19 5 3.7 | 75 20 5 3.7 |
| participation | 48 52 | 3.5 | 78 20 2 3.7 | 66 32 2 3.6 |
| listened | 68 32 | 3.7 | 82 18 3.8 | 83 17 3.8 |
| good feeling | 73 21 6 | 3.7 | 81 19 3.8 | 89 11 3.9 |
| respect | 81 19 | 3.8 | 94 6 3.9 | 95 5 4.0 |
| related tests | 40 35 5 | 3.4 | 65 33 2 3.6 | 84 12 2 3.8 |
| careful tests | 56 44 | 3.6 | 66 34 3.7 | 78 17 5 3.7 |
| timely tests | 72 28 | 3.7 | 73 25 2 3.7 | 88 12 3.9 |
| useful | 60 29 0 11 | 3.4 | 60 33 7 3.5 | 73 25 2 3.7 |
| I learned | 58 27 15 | 3.4 | 64 32 2 3.6 | 84 16 3.8 |
| AVERAGE | 65 31 3 1 | 3.6 | 75 23 2 3.7 | 84 15 1 - 3.8 |

RATINGS QUESTION CUMULATIVE -- BY COURSE

Nine quarters (Autumn 2006 - Autumn 2008), only courses taught more once. Responses to 20 questions, in percent of respondents.

| | M102 (| (5) N | = | M107 (2) N | =19 |
|-----------------|----------|-------|------------|-------------|-----|
| <u>Question</u> | 4 3 2 | 21 | <u>Ave</u> | 4 3 2 1 | Ave |
| | | | | | |
| well-prepared | 68 32 | | 3.7 | 75 20 5 | 3.6 |
| clear goals | 62 35 3 | 3 | 3.8 | 70 25 5 | 3.7 |
| syllabus | 61 37 2 | 2 | 3.6 | 70 25 5 | 3.7 |
| explain grade | 64 30 6 | 6 | 3.6 | 69 26 5 | 3.7 |
| on time | 71 29 | | 3.7 | 80 15 5 | 3.7 |
| knowledge | | 2 | 3.8 | 85 10 5 | 3.8 |
| enthusiasm | 78 22 | | 3.8 | 85 10 5 | 3.8 |
| assist | 72 28 | | 3.7 | 84 11 5 | 3.8 |
| examples | 67 29 4 | 4 | 3.6 | 85 10 5 | 3.8 |
| different ways | 71 24 5 | 5 | 3.7 | 75 20 5 | 3.7 |
| different needs | 55 35 10 | 0 | 3.6 | 69 21 5 5 | 3.5 |
| participation | 67 33 | | 3.7 | 80 15 5 | 3.7 |
| listened | 71 29 | | 3.7 | 85 10 5 | 3.8 |
| good feeling | 74 26 | | 3.7 | 80 15 5 | 3.8 |
| respect | 80 20 | | 3.8 | 84 11 5 | 3.8 |
| related tests | 66 34 | | 3.7 | 69 26 5 | 3.6 |
| careful tests | 67 28 5 | 5 | 3.6 | 63 37 | 3.6 |
| timely tests | 59 41 | | 3.6 | 67 28 5 | 3.6 |
| useful | 56 32 7 | 75 | 3.4 | 45 30 11 13 | 3.0 |
| I learned | 54 41 3 | 32 | 3.5 | 75 10 15 | 3.6 |
| | | | | | |
| AVERAGE | 68 30 2 | 2 - | 3.7 | 76 17 5 2 | 3.7 |
| | | | ======= | | |

RATINGS QUESTION CUMULATIVE -- ACADEMIC 2008-2009 BY QUARTER

The following three tables summarize results on each question by quarter. The cumulative ratings by quarter presented at the beginning of the data section are more useful to look at.

Three 5-unit courses per quarter. Responses to 20 questions, in percent of respondents.

| Question | N= Autumn 2008 4 3 2 1 | N= Winter 2009 4 3 2 1 | N= Spring 2009 4 3 2 1 | N= Summer 2009 4 3 2 1 |
|---|--|------------------------------|------------------------------|------------------------------|
| <pre>well-prepared clear goals syllabus explain grade on time knowledge enthusiasm assist examples different ways different needs participation listened good feeling respect related tests careful tests timely tests useful I learned</pre> | NOT AVAILABLE WHEN TENURE BOOK WAS SUBMITTED | | | |
| AVERAGE | | | | |

RATINGS QUESTION CUMULATIVE -- ACADEMIC 2007-2008 BY QUARTER

Three 5-unit courses per quarter (4 in Spring 2008, 2 in Winter 2008). Responses to 20 questions, in percent of respondents.

| | n | /a | | | 1 | V=18 | | | 1 | √ =53 | | | I | V=43 | | | |
|-----------------|------|----|----|----|-----|-------|----|----|------|--------------|----|----|------|-------|----|----|------|
| | Autu | mn | 20 | 07 | Wir | nter | 20 | 80 | Spi | ring | 20 | 08 | Su | nmer | 20 | 08 | |
| <u>Question</u> | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | |
| | | | | | | | | | | | | | | | | | |
| well-prepared | | | | | | 18 | | | | 29 | 2 | | 77 | 23 | | | |
| clear goals | | | | | 87 | 13 | | | 65 | 33 | 2 | | 69 | 29 | 2 | | |
| syllabus | | | | | 87 | 13 | | | | 33 | 2 | | 73 | 27 | | | |
| explain grade | | | | | 91 | 9 | | | 70 | 28 | 2 | | 75 | 21 | 4 | | |
| on time | | | | | 91 | 9 | | | 79 | 21 | | | 76 | 24 | | | |
| knowledge | | | | | 100 | | | | 83 | 15 | 2 | | 83 | 17 | | | |
| enthusiasm | | | | | 95 | 5 | | | 82 | 18 | | | 82 | 18 | | | |
| assist | | | | | 100 | | | | 80 | 18 | 2 | | 83 | 17 | | | |
| examples | | | | | 87 | 9 | 4 | | 70 | 24 | 4 | 2 | 76 | 21 | 3 | | |
| different ways | | | | | 54 | 37 | 9 | | 63 | 24 | 13 | | 81 | 14 | 5 | | |
| different needs | | | | | 76 | 18 | 6 | | 65 | 22 | 13 | | 58 | 39 | 3 | | |
| participation | | | | | 58 | 42 | | | 64 | 34 | 2 | | 75 | 21 | 4 | | |
| listened | | | | | 72 | 28 | | | 74 | 26 | | | 81 | 19 | | | |
| good feeling | | | | | 95 | 5 | | | 71 | 29 | | | 86 | 14 | | | |
| respect | | | | | 100 | | | | 86 | 14 | | | 87 | 13 | | | |
| related tests | | | | | 91 | 9 | | | 68 | 30 | 2 | | 75 | 25 | | | |
| careful tests | | | | | 86 | 14 | | | 64 | 31 | 3 | | 75 | 20 | 5 | | |
| timely tests | | | | | 82 | 18 | | | 69 | 29 | 2 | | 78 | 29 | | | |
| useful | | | | | 80 | 16 | 4 | | 55 | 26 | 13 | 6 | 50 | 41 | 7 | 2 | |
| I learned | | | | | 70 | 30 | | | 61 | 32 | 5 | 2 | 63 | 34 | 3 | | |
| | | | | | | | | | | | | | | | | | |
| AVERAGE | | | | | 84 | 15 | 1 | - | 71 | 25 | 4 | 0 | 75 | 23 | 2 | - | |
| | | | | | | ====: | | | | | | | ==== | ====: | | | ==== |

RATINGS QUESTION CUMULATIVE -- ACADEMIC 2006-2007 BY QUARTER

Three 5-unit courses per quarter. Responses to 20 questions, in percent of respondents.

| | N=43 | N=33 | N=25 | n/a |
|-----------------|-------------|--------------|------------|-------------|
| | Autumn 2006 | | pring 2007 | Summer 2007 |
| <u>Question</u> | 4 3 2 1 | 4 3 2 1 4 | 4321 | 4 3 2 1 |
| | | | | |
| well-prepared | 58 42 | | 9383 | |
| clear goals | 58 37 5 | | 4 26 | |
| syllabus | 53 47 | | 3 17 | |
| explain grade | 65 35 | | 7294 | |
| on time | 64 36 | 87 10 3 72 | 2 28 | |
| knowledge | 79 21 | 81 19 8 | 5 11 4 | |
| enthusiasm | 64 36 | 76 21 3 90 | 073 | |
| assist | 81 16 3 | 90 10 93 | 37 | |
| examples | 55 42 3 | 81 9 6 3 6 | 7 33 | |
| different ways | 44 47 9 | 58 30 8 4 5 | 5414 | |
| different needs | 63 34 3 | 68 20 8 4 70 | 0264 | |
| participation | 61 39 | 63 37 50 | 6404 | |
| listened | 73 27 | 85 15 92 | 19 | |
| good feeling | 74 26 | 87 9 4 70 | 6 24 | |
| respect | 91 9 | 88 12 90 | 64 | |
| related tests | 60 40 | | 1 36 3 | |
| careful tests | 54 46 | | 9 36 5 | |
| timely tests | 61 39 | | 9 16 5 | |
| useful | 50 42 8 | | 1 35 4 | |
| I learned | 51 46 3 | | 5 35 | |
| 1 10011100 | | . 2 10 10 0. | | |
| AVERAGE | 64 35 1 - | 78 19 2 1 72 | 2 25 3 0 | |
| | | | | |

RAW SCORES

Raw ranking data, expressed as percentages, for each question and each course. This data is best skipped, since it is too fine grain to be of statistical interest. The clustered and summary scores in the preceding tables are necessary to smooth over the inherent psychometric weaknesses in this raw data (such as absence of variance information, lack of standardization, and noncomparable percentage data).

AUTUMN 2008 STUDENT RATINGS RAW SCORES

| Question | M99 N= 4 3 2 1 | M102 N=7 4 3 2 1 | M107 N=9 4 3 2 1 |
|-----------------|-------------------|---------------------|---------------------|
| well-prepared | NOT | 71 29 | 89 11 |
| clear goals | AVAILABLE | 71 29 | 89 11 |
| syllabus | WHEN | 71 29 | 89 11 |
| explain grade | TENURE | 71 29 | 78 22 |
| on time | воок | 86 14 | 89 11 |
| knowledge | WAS | 86 14 | 89 11 |
| enthusiasm | SUBMITTED | 86 14 | 89 11 |
| assist | | 71 29 | 89 11 |
| examples | | 71 29 | 89 11 |
| different ways | | 71 29 | 89 11 |
| different needs | | 71 14 14 | 78 11 11 |
| participation | | 71 29 | 89 11 |
| listened | | 71 29 | 89 11 |
| good feeling | | 71 29 | 89 11 |
| respect | | 71 29 | 89 11 |
| related tests | | 57 43 | 78 11 11 |
| careful tests | | 71 29 | 67 33 |
| timely tests | | 57 43 | 75 25 |
| useful | | 71 29 | 58 28 14 |
| I learned | | 71 29 | 89 11 |
| AVERAGE | | 72 27 1 | 84 7 6 3 |

SUMMER 2008 STUDENT RATINGS RAW SCORES

| | M99 N=9 | M102morn N=20 | M102avo N=14 |
|-----------------|----------|---------------|--------------|
| <u>Question</u> | 4 3 2 1 | 4 3 2 1 | 4 3 2 1 |
| | 00.44 | 70.00 | 74 . 20 |
| well-prepared | 89 11 | 70 30 | 71 29 |
| clear goals | 78 22 | 60 35 5 | 71 29 |
| syllabus | 89 11 | 65 35 | 64 36 |
| explain grade | 89 11 | 58 37 5 | 77 15 8 |
| on time | 89 11 | 60 40 | 79 21 |
| knowledge | 100 | 65 35 | 85 15 |
| enthusiasm | 89 11 | 70 30 | 86 14 |
| assist | 100 | 85 15 | 64 36 |
| examples | 78 22 | 70 20 10 | 79 21 |
| different ways | 89 11 | 75 20 5 | 79 21 |
| different needs | 89 11 | 35 55 10 | 50 50 |
| participation | 89 11 | 65 35 | 71 29 |
| listened | 89 11 | 74 26 | 79 21 |
| good feeling | 89 11 | 70 30 | 100 |
| respect | 89 11 | 85 15 | 86 14 |
| related tests | 89 11 | 74 32 [sic] | 71 29 |
| careful tests | 78 11 11 | 68 26 5 | 77 23 |
| timely tests | 100 | 53 47 | 71 29 |
| useful | 56 44 | 45 35 15 5 | 50 43 7 |
| I learned | 89 11 | 50 40 10 | 50 50 |
| AVERAGE | 87 11 2 | 65 32 3 - | 73 26 1 |

SPRING 2008 STUDENT RATINGS RAW SCORES

| | M90 N=13 | M99 N=15 | M102 N=15 | M107 N=10 |
|-----------------|-----------|-----------|------------|-------------|
| <u>Question</u> | 4 3 2 1 | 4 3 2 1 | 4 3 2 1 | 4 3 2 1 |
| | | | | |
| well-prepared | 69 23 8 | 87 13 | 60 40 | 60 40 |
| clear goals | 85 15 | 79 21 | 47 47 7 | 50 50 |
| syllabus | 85 15 | 80 20 | 47 47 7 | 50 50 |
| explain grade | 85 15 | 80 20 | 47 40 13 | 60 30 10 |
| on time | 100 | 87 13 | 60 40 | 70 30 |
| knowledge | 92 8 | 86 14 | 73 20 7 | 80 20 |
| enthusiasm | 85 15 | 92 8 | 71 29 | 80 20 |
| assist | 83 8 8 | 93 7 | 67 33 | 78 22 |
| examples | 77 8 8 8 | 79 21 | 47 47 7 | 80 20 |
| different ways | 54 23 23 | 77 8 15 | 60 27 13 | 60 40 |
| different needs | 62 23 15 | 69 15 15 | 64 21 14 | 60 30 10 |
| participation | 69 23 8 | 57 43 | 60 40 | 70 30 |
| listened | 77 23 | 79 21 | 60 40 | 80 20 |
| good feeling | 77 23 | 79 21 | 57 43 | 70 30 |
| respect | 100 | 87 13 | 80 20 | 78 22 |
| related tests | 58 33 8 | 93 7 | 60 40 | 60 40 |
| careful tests | 58 42 | 93 7 | 53 33 13 | 60 40 |
| timely tests | 75 25 | 86 14 | 53 47 | 60 30 10 |
| useful | 58 25 17 | 67 27 7 | 57 21 7 14 | 33 33 22 11 |
| I learned | 62 38 | 86 14 | 47 47 7 | 60 20 20 |
| AVERAGE | 77 18 5 0 | 82 16 2 - | 57 37 5 1 | 68 27 4 1 |
| | | | | |

WINTER 2008 STUDENT RATINGS RAW SCORES

| | M90avo n∕a | M90e∨e N=7 | M99 N=11 |
|-----------------|------------|------------|-----------|
| <u>Question</u> | 4 3 2 1 | 4 3 2 1 | 4 3 2 1 |
| well-prepared | | 100 | 64 36 |
| clear goals | | 100 | 73 27 |
| - | | 100 | 73 27 |
| syllabus | | | - |
| explain grade | | 100 | 82 18 |
| on time | | 100 | 82 18 |
| knowledge | | 100 | 100 |
| enthusiasm | | 100 | 91 9 |
| assist | | 100 | 100 |
| examples | | 83 17 | 91 9 |
| different ways | | 71 29 | 36 45 18 |
| different needs | | 86 14 | 67 22 11 |
| participation | | 71 29 | 45 55 |
| listened | | 71 29 | 73 27 |
| good feeling | | 100 | 91 9 |
| respect | | 100 | 100 |
| related tests | | 100 | 82 18 |
| careful tests | | 100 | 73 27 |
| timely tests | | 100 | 64 36 |
| useful | | 86 14 | 73 18 9 |
| I learned | | 86 14 | 55 45 |
| T LEALINEA | | 00 14 | JJ 4J |
| AVERAGE | | 92 7 1 - | 76 22 2 0 |

WRITTEN COMMENTS

Every written student comment on four questions is included:

- What did you like best about the instructor?
- What do you think the instructor could do to improve his/her teaching?
- How did this course improve your preparation for your career or academic goals?
 - Please write any additional comments.

Comments have been recorded as written, with no editing of spelling, grammar, etc.

WRITTEN COMMENTS 2008-2009 ACADEMIC YEAR

<u>Best</u>

• Everything. Listened, taught, understanding!

• I love that William can give personal one on one time with each student. His teaching style works perfectly for my learning style. So much so, that I have recommended other students needing math credits to sign up for William's classes. He's kind, patient, and very clear in his instruction. I have one more math class to take, and I will take it only with William!

• I liked the one-on-one interaction and the enthusiasm of the subject.

• Very informative about each chapter and helped me understand the subject with ease. Always willing to help, even it has been explained several times. Mr. Bricken is a very patient professor and he understands students like myself that are not as quick as others when it comes to math skills. I have really appreciated his patience with me, not only in Math 99, but in Math 90 as well!!

- Calm, positive demeanor.
- Very laid back, great listener/helper!

• Treated students with respect, one on one teaching which makes the students understand better. Always smiling in class which makes everybody comfortable.

- Explain that's easy to understand for me.
- The dedication to students learning in different ways. If it is in class, @ home, learning online, he supported any way we needed to use to learn.
- He is a great teacher.
- His laid back attitude towards math. Also his willingness to help figure out problems.
- willing to show you one on one

Can Improve

• Keep going!

• The only thing that I can suggest, and this is only because of a classmate, would be for William, after his lecture, would ask the class if anyone needs "sign off". My classmate waited patiently, (without speaking up), when all he needed was for William to sign him off so he could go home.

- n/a
- N/A
- nothing
- N/A

• Maybe give 1 or 2 quizes throughout quarter to test current knowledge & help students retain that info. no pop quizes!)

• nothing. good job

<u>Career</u>

- I know math! I learned & <u>retained</u> math!
- This course got me one more math credit towards filling my pre-req's for my program.
- $\bullet\,$ With this course I remembered things I knew and I have learned some new things as
- well. This course improved my understandment and preparation for future education.

 $\bullet\,$ I feel much more knowledgable, and I am very confident to take my math skills to the next level.

- I feel this course improved my confidence in relation to my math skills.
- prepared me to FULLY understand all MATH 99 material.
- I can now take other tougher Math courses at ease.
- Because of Math 99, I'm ready to take "statistic class"
- Another pre-req fro nursing done!
- Allowed me to fulfill a core requirement for my BA.
- understanding the material
- laying out problem to the fullest

<u>Other</u>

• Thank you, your class was a blessing. Great text book!!!

• Much like I said the last time I took William's class, I am so thankful that he is here at LWTC. Math does not seem as terrifing as it has been in years past because of his kindness and patience with me (and others).

- <u>Great</u> <u>teacher</u>!
- I really enjoyed William's method of teaching & I wish more Professors were like him!
- I'm really thank you your help! You are the best math teacher I ever met!! See you around!! Bye \sim

<u>Best</u>

- Excellent teacher.
- Excellent teacher!!!
- open mindedness about different levels of students' knowledge
- The emphasis on group learning was extremely helpful.

• He gave us the history of Math itself and that i found so interesting. He is so energetic too and made the Math that i thought was hard to understand, he made it simple for me to enjoy too.

• he could teach in every level of student

Can Improve

- Not much.
- I do not think there are any areas for improvement.

• Well, i think we sould have some break in between the class as i found to be tired half way the class and i think only breaks in between will do

<u>Career</u>

- It fulfilled my requirements for gen
- $\bullet\,$ It was helpful in that it showed the students a different teaching style and gave us more freedom to learn.
- $\bullet\,$ Well in a very genaeral manner. I know most nost of the stuff i did will be done in my everyday life
- would help me alot in my career

<u>Other</u>

- Excellent teacher!!!
- Very pleasant instructor.
- None

N =

Math107 AUTUMN 2008

<u>Best</u>

 $\bullet\,$ he knew what he was teaching and did a good job on making sure we understood the material.

- I loved the style of this class.
- How the material was brought to the class. It was a helpful way of learning new material.
- He is very knowledgable about the subject. Brings a lot of enthusiasm to the course.
- Strives to expose students to new ideas and concepts.
- Showed many interested stuff which we will not going to learn in other math class.

• He was very good at explaining, always on time and he made me feel very comfortable in the class. Whatever i don't understand, he clearly explained it to me as best as he could.

• He is very interested in making sure each student actually learns and is not just taught. I really enjoyed his student based teaching philosophy. Class is never boring because he relates the material to actual things students deal with and individualizes it for each student. He is also excellent at pushing out thinking to new places and willing to tackle subjects that are out of the normal realm.

Can Improve

- nothing he did a good job
- $\bullet\,$ Sometimes he gets a little involved because he knows the material so well. Students have a tendency to get a little lost.
- Well, he is the best math teacher I never met before.
- I think he is absolutely good at teaching. He showed lots of enthusiasm when teaching considering that it is 5:30 at night. He can go on forever talking about math. I don't think there should be any changes.
- He is the first teacher I have had that I truely cannot think of any improvements.

<u>Career</u>

- was shown how math is use more than you think in the world everyday
- Taught me many new things.

• This course has definitely taught me how to think differently about the world around me. It has introduced some new and interesting topics to my realm of education. It has expanded my concept of reality and exercised my thought processes. Overall it was an excellent class. the instructor was enthusiastic about the material and made me feel like there is more to math than what i know.

 $\bullet\,$ Taught me to look at things from new perspectives and introduced things I had no Idea about that I was interested in.

<u>Other</u>

- He's a great teacher!
- AWESOME!!!

WRITTEN COMMENTS 2007-2008 ACADEMIC YEAR

<u>Best</u>

• Worked with students individually

• He successfully maintained good learning environment in the class. Explained all material so it is as easy to understand as possible. He gave a lot of 1 on 1 attention to all students. Allways offered extra help if needed.

 $\bullet\,$ He allows me to learn at my speed & ability This invaluable in an instructor. Thank you.

- Highly intelligent and easy to talk to.
- Structure of class
- His enthusiasm for Math! It is infectious-
- He did a lot of one on one with his students.

 $\bullet\,$ He provided a bacround history about the subject material and gave good examples of practical application.

Can Improve

- It is already great.
- Structured lecturing could be nice.
- $\bullet\,$ If anything, perhaps a handout at the beginning of the course with equations and formulas on it.
- Teach class online videotape lectures
- Nothing
- Not much.

Career

- It helped solidify my understanding of basic algebra
- $\bullet~$ It prepared me for the next level class -107 so I can go on with my education pursuing a 4 year degree.
- The instructor allows time for learning each chapter
- Eh, I'm sure I'll figure that out later.
- Allowed me to not be afraid of math.
- I am more knowledible now.
- It helps me complete required math credits for college.

<u>Other</u>

- Mr. W. Bricken is the only teacher that ever thouth me math could be easy and very simple. I finally get it.
- Shweet XD
- Very intelligent, very understanding, very accommodating. Thank you!

• I like the teaching style that is used, because it focuses on the student, and the individual learning style that benefits them the most.

Math102morn SUMMER 2008 N=20

<u>Best</u>

• His manner and his knowledge

• He knows what he is talking about and is interesting to listen to. I especially liked when he would go off on a rant and related it to the course work.

- The teaching method
- How knowledgeable he is

• that he actually cared if we did/didn't have enthusiasm for the subject. It was apparent our interest made him happier. He was also patient and understanding and used a lot of examples to simplify complex ideas.

- The projects as groups
- his teaching style and enthusiasm for the subject. He is very knowledgable.

• The outline of the class, was perfect. Each topic had its own section. The classroom was not intense for learning unfamiliar math. Its a good idea to get into groups, that way everybody can put there inputs and also help each other out. The course was presented at the beginning of the quarter and follow till the end. Very nice teacher. Lots of energy in math.

- His incredible knowledge of the subject. and he wears sandles to work.
- Was laid back and he was informative!

• That he was very nogable in the subject and was also very excited when explaining the material. he was able to make the presentation understandable when he was explaining

- He's kind & respect all students.
- After the lecture he would come sit down with us and help us out

Can Improve

- dumb it down more need more basic info to understand concepts
- not a lot, maybe, I don't really have any suggestions
- Keep doing projects
- Sometimes he can get a bit too technical and it is hard to follow.
- Not used the textbook.
- Adapt teaching styles better to fit the students learning styles.
- try to simplify for students that don't understand.
- get some more visual ades to help him explain
- Voice
- try not to explain it like we already know it.

<u>Career</u>

- it taught me skills for solving equations and how to find solutions for unknown problems. I feel I gained a good amount of knowledge in this course.
- This course was useless to me.

- showed me how to think more systematicly
- it helped me satiate my last math credit
- Better Knowledge of Math
- I really don't see how Math 102 will help me in my new career.

• It open me to different types of math, that is related to our everyday life. Its all around us and knowing how to read things that include, scales,... etc. and make the relationship.

- I learned a lot. nothing will help me in my career field but I learned a lot.
- it didn't!
- it helped me
- it would make no difference if I ended up not taking it

<u>Other</u>

- Math 99 as a pre-requisite would have been advisable
- Mr. Bricken is a good teacher. enthusiastic and smart
- $\bullet\,$ While I can see how this class can be helpful in some fields, for mine I felt this was a waste of time and money for me.
- great class, enjoy the pace.
- Nice work
- Great instructor, that treat you like an adult
- Thank you Mr. Bricken. I always enjoy your class. You are a good teacher.
- good job!

Math102avo SUMMER 2008 N=14

<u>Best</u>

• He puts emphasis on actually learning the material, rather than just going through the motions doing busy work. He gets really excited talking about math, and he explains it in a way that gets me excited to learn it.

- Informative, interesting, not boring.
- Very friendly and was very knowledgable about the course. Very high credibility.
- Very prepared. Knowledgeable. Always willing to help.
- He was willing to listen to my questions and take time to answer them.
- He's a personable individual
- Friendly, and easy going
- He was very organized, helpful and ethusiastic.
- He is nice, prepared well.
- All

Can Improve

- Not much really
- Class was fine as instructed.
- Nothing.
- ?

Career

• Taught us to present material in front of the class about things we weren't originally familiar with.

- Helped me finish!!
- Helped me see math differently
- It made me think about Math that we see and use every day.
- yes

<u>Other</u>

- Mr. Bricken is a great teacher!
- Very enjoyable class.

Math90 SPRING 2008 N=13

<u>Best</u>

• Very patient with me when explaining math problems to me that I would have difficulty understanding. Explained things very well.

- was willing to leave time to do teaching w/ each individual.
- friendly & communicates well (understandable, understands us).
- I loved his unique teaching style. I was able to work in my own pace but still get 1 on 1 help every class. I found this much more useful and helpful than teachers who lecture the whole quarter.
- He is very great personality. VERY understanding, very helpful, very patient.

He was very patient & explain very clearly & carefully. Thank you so much!

• The different ways to achieve the course goals. High quality of knowledge shown on a separate comments of a every student's work and ability to see everyones skill level. I think that is very important for every classes.

• Mr. Bricken a great instructor. His explanations were very clear to understand 100%. He respect each student and pay as much attention as they needed.

 $\bullet\,$ well, for one there were no tests, so I really liked that, but he really described how to do the material very well.

• His willingness to be patient with me while the ideas of algebra sank in. I also appreciated William's class style: teach the material for an hour, then walk around to individually help the students.

- Mr. Bricken is very articulate when speaking.
- Teaching stlye

Can Improve

- Do more lecturing and lecture slower.
- N/A
- little more lecture
- No need for improvement, all is well!
- nothing!

- Be the same way!
- Nothing. Just follow the path that he sued to.
- No coments
- Nothing.

• Sing & dance the Polka?! William is an awesome instructor, and I'm planning on taking my next math course with him. His instruction is clear, he's patient and not patronizing.

• Structure the class moderately.

<u>Career</u>

• I am ready and cofident for math 99!!

• This class helped me a lot. I've taken many algebra classes and struggled through the whole quarter, not understanding anything in the end. But being able to work in my own pace, and getting help when needed, really helped me learn & succeed.

 $\bullet\,$ Helped me understand my math skills/issues and how to solve the issues I did have at the beginning of the course.

excellent

• Now I could take a higher level of math and I would know that I didn't miss anything. Which is good, because I don't need to review all the courses that i have missed.

- Thank you 100%
- Just made me 5 more credits to completing my degree.
- Caught me up so I can take the "college level" course to complete my AA.
- we'll see
- didn't gen ed

<u>Other</u>

- Great teacher!
- I very very liked teaching skills!
- God bless you theacher. Thank you so much, best wishes in the world

• I'm really proud of what kind of class I choose and when the next quarter starts I will choose the same instructor for Math 99.

• Everything was just perfect!!!

 $\bullet\,$ The instructor has a very unique way of teaching and I'd recommend other teachers could learn form him.

Math99 SPRING 2008 N=16

<u>Best</u>

- He made it a one on one learning which helped increase my knowledge of the subject.
- Explaining to you, if you ask any question related to mathematics
- one-on-one help w/ math assignments

• William was very considerate when it came to listening to coarse related material and questions. He has a very calming demeener that lightens the mood and makes you feel more level headed about the material. He also had a great way of teaching the material that made more sense than teachers I've had in the past.

- Individualized his teachings
- When he goes around to help you.

• (1) Understanding that students in class were at different proficiency levels and was able to work with each student to achieve success. (2) Gave wonderful overview of subject matter and made analogies to real world scenarios/problems. (3) Provided as much one-on-one student help as was necessary

- He was prepared for class every day and was always will to help me when I needed it
- Working one and one with students that help me understand better.
- His style in assignments.
- I liked that my instructor talked to me one on one.
- I enjoyed the teaching style

• I liked Mr. Bricken's attitude toward math. He taught the curriculum in an understandable way which is really difficult to do in math. I was never intimidated to ask a question because he listens to the problem and helps you solve it in a way you can comprehend, even if that meant approaching the problem in a different way than the book did.

 $\bullet~$ I like the way of his teaching. He really patient for student. He always respect our idea and never made students feel embarassing if we did some math problem wrong

 $\bullet\,$ I liked his teaching style. He would lecture then individually work with the students.

• I like the one on one he did when he finished giving the lesson. Coming and sitting down with me was super helpful.

Can Improve

- is excellent
- different teaching styles
- Nothing
- This is a boring question.
- Slow down a little bit when explaing
- The math books need Mr. Bricken to right them to make them more user friendly
- He should maintain his interest on working with students and knowing their weakness. Then solutions can be done if a problem is found.
- nothing comes to mind.

• I would have liked to talk to him more about my progress in the class. I felt that the teacher should have explained the concepts in various ways to fit peoples various learning styles.

- Nothing keep him the way he is!
- nothing

• Most student doesn't show up in the class much, he could do something to make them more respect his class: like cut some point if they missed it.

• Maybe answer questions as a class after each lesson on board.

<u>Career</u>

 $\bullet\,$ I learn a lot in this class. It gave me all the foundation that I need to become a computer scientist.

- to work harder and never give up
- Made me realize that Algebra is very usefull in everyday life

• If I ever have to jump through these hoops again, I will have experience and knowledge in doing so. I've seen the light.

• It helped me a lot more comfortable with Algebra.

 $\bullet\,$ I was able to apply course content to other science courses. Helped me to be better prepared for upcomming entrance tests.

- I know th quadratic formula in case I ever need to use it again
- It's a requirement for me on my pursuit of career to get into the nursing program
- by moving me to my prereq.
- got thru math 99

• Math isn't related to my career but the class was laid back which kept me from being stressed out - which is how I usually feel when it comes to math

- This class really help me good prepare for my next level of math
- It brought me one step closer to finishing my AAS.
- I learned

<u>Other</u>

- wonderful teacher, very helpful.
- Mr. Bricken was very knowledgable and very kind.
- Thanks for a rewarding quarter.
- I really liked this class
- Have a happy summer
- Excellent class

 $\bullet\,$ everyone should take a math class with mr. bricken. easily the best math teacher i've ever had.

• I really liked the way the class was structured & run, my only complaint was I wish there were 2 or 3 teachers to walk around. I did a lot of waiting to talk to him.

Math102 SPRING 2008 N=15

<u>Best</u>

• He really explained the purpose of what use this math was for instead of the usual "you'll use it sometime". I always left the class understanding everything he said that night.

- The best thing is, he looks at every student individually attends to each student.
- great guy & very forgiving of lack of understanding.
- his pretty open
- He's a laid back teacher that let's us go on our own speed.
- Easy Going
- Laid back and understanding

 $\bullet\,$ He did not give tests. he also helped me to really understand math because he had us show with a project that we have learned the material.

- He explained everything so clear and I learned more and more in his class.
- taught us each individually, and took time to answer our questions.

• His willingness to work with us individually and explain thing I did not understand. Very patient

Can Improve

- NO he's a very knowledgable person
- $\bullet\,$ I think there is a lot more he does than in any of my other classes. He uses different techniques.
- Needed to explain things more clearly & use clear examples.
- Nothing I think his doing great.
- Disciple
- ?
- Give examples of expected projects.
- I think he is a wonderful and knowledgeable person.
- explain more on the text.
- I think he is one of my favorite teachers. He does not need to improve anything.

<u>Career</u>

• I fully understand ven diagrams and triangle (cos, tan, sin) all lot better ten in high school all the angles will help in the future w/ welding.

- helped me interact and be better at group work and also toward my A.A. degree.
- It did not in any way. A waste of time & money.
- Oh yeah helped me get my AAS
- that there's use for trigagomy in life
- Learning about some material that I use in the automotive field
- Math is not a subject that I will use again, this is my second time taking the class, and this still doesn't make any sense. The book is HORRIBLE and there is no directions to it.
- Helped me to become more comfortable with speaking in front of people.
- -nothing-
- I'm not sure but I do know how to do trig & some calculus I guess that is a plus.

<u>Other</u>

- Mr. Bricken is an excellent teacher.
- He is the best instructor. Understands each students way of learning.
- He really knows his stuff
- The books used for this class did not do a good job presenting the material.
- Great teacher and wish more teachers were like him.
- Grreat Teacher!

Math107 SPRING 2008 N=10

<u>Best</u>

• He makes me feel good.

• Warm, Intelligent. Created an atmosphere of openness & ability to interject thorough critical thinking excercises. I wish I would have had a class with him earlier in life as it would have changed my whole perspective

• Was very helpful & understanding when I need help.

• Open-minded, extremely knowledgeable, respectful, and teaching methodology. Best instructor in the 3 quarters I have taken. So much so I have a new interest and look on math.

• Knowledge of subject matter.

• Where may I begin! Never before in all of my life have I enjoyed the teachers who taught maths but with Mr. Bricken it was amazing! He had passion that kept me interested through out. I enjoyed making my friends jealous when I told them about this class. His knowledge and conversations were entertaining and fun. I would take another class with him without even thinking what it is.

- enthusiasm for subject, wanting us to learn
- his lectures
- Unique teaching style
- very nice and kind

Can Improve

 $\bullet\,$ Remove students that disruptive to the discussion, such as sleeping or cell phone usage.

- have the class more limited in scope corilating with degree programs ext.
- $\bullet\,$ Honestly everything was new and so much fun I don't think there could be anything else.
- keep course the same.
- I don't know
- more practical assignments less theory

<u>Career</u>

- Increased global perspective of the application of Mathematics
- Math is used for everything, & I can now relate it to thing I wasn't able to before.
- $\bullet\,$ A better understanding of math towards my field of study. Not all maths are created equal and rule of thought
- I covered material used in my certification class.
- It will hep me further understand my passion for film making and where to use it.
- made me aware of how math lays a role in many areas of my life.
- I feel that I learned that math is a lot more in depth than what people think it is.
- It showe me how to look at math from a different perspective
- Math is better

<u>Other</u>

- This class was great! I would take it again!
- $\bullet\,$ I've taken him to quarters in a row and was very happy in both his classes
- Teach should teach Logic & Reasoning of some kind
- Not much can be said to som up how much fun and educational the class was.
- This is the best class I have taken.

Math90avo WINTER 2008 N=8

<u>Best</u>

- He let us work at our own pace, as fast or slow as we wanted.
- Brilliant instructor, well rounded in his vast knowledge of the subject.
- That he was nice. Helpful.
- I like the way his teaching one by one to rais the hands and ask som question seem to be emmbaressed me sometime, because of my broken English. To study as a group in the calss with friends are smart idea of him. friends can alway help friends understand and solve the problems. Learn a little bit of each other knowlege.
- Was always able to go off topic for a little while to make math less stressful.
- $\bullet\,$ friendly atmoshpire in the class. Every question that I asked was answered. It was a great course.
- Knew course.
- Strong knowledge about the subject.

Can Improve

- Nothing. He's awesome.
- Write his own text book.
- Be more specific in his class lessons.
- The teaching is very good.
- More in class time.

<u>Career</u>

- I passed and learned more math.
- Meet my requirements to advance.
- This course prepared me for my career by helping me learn more math.
- This course is basic of my goals math, so this is understanding help me a lot.
- $\bullet\,$ He gave a lesson of staying on top of what your doing By making everyone responsible to turn in assignments on their own.
- $\bullet\,$ Now I am prepared for my nursing program and my Math skills are much better than 3 months ago.
- Better idea of what algebra is all about.
- Help me remember my math skills.

<u>Other</u>

• Mr. Bricken has been a wonderful instructor, a very kind and gentle human being which is lacking in our society. Thank you Mr. B. Promote now!

- Great job with teaching the course. Do more explaining in the future.
- I love him, he is a awesome teacher.
- The course was very good.
- Great teacher.

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<u>Best</u>

- Was very helpful & flexable.
- He is flexible, very relaxed, very welcoming genuine nice guy

• Mr. Bricken was very helpful, he took time to meet with each individual student. Not only did he checked off our homework when it was needed, he explained fully the errors that we made and made sure we understood the material that we went through. Mr. Bricken is a fabulous teacher, and hope to be in his other class.

• personal one on one teaching

 $\bullet\,$ He took lots of time to help me understand what I was doing. He went step by step to make sure that I grasped what he was saying.

- He was very helpful and patient.
- Flexibility with each student and their needs individually

Can Improve

- insist to whoever decides books or curriculum to use a different math book
- Nothing. He is one of the best teachers that I have had.
- Nothing he was great!

<u>Career</u>

- It gave me a clearer understanding and pushed me to try different things
- It let me know where I am in my math knowledge

• Mr. Bricken and I had a discussion about my future goal as a nurse, he explained to me the steps that I need to be taking to meet the mathematic pre-reqs that I need to obtain before I enroll in the nursing program. Mr. Bricken was very helpful.

 $\bullet\,$ I'm not sure I am more prepared from taking this class, but I definitely know more math now than before.

• It helped me get ready for Math 99

<u>Other</u>

• This course was set up very well.

 $\bullet\,$ William Bricken is a fantastic teacher who made learning math a lot easier for me then it has been in the past.

• I hope to be in his class next semester because he is an awesome teacher and helped me step by step when I needed it. Thank you!

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<u>Best</u>

• explinations of material & finds time for individual consulting.

• His patience and encouragement to help me understand the material. treating each student as an adult and with different needs.

• Mr. Bricken was always very helpful in class and very understanding of everything

• I loved the fact that it was (in a way) self-paced. I was able to move forward ahead of the class when I was confident w/ the material. Also gave significant one-on-one time to each student.

 $\bullet\,$ Very knowledgable & understanding instructor. I liked how the class was structured to work @ your own pace.

• He takes the time to work with each student individually, however would explain the math in a more complex manner. Therefore, even though he means well and truly wants students to succeed, for some it made learning the math more difficult.

• His teaching style. I learned a lot more in this math class than in previous classes.

• I like the fact that he would take the time to sit w/each student individualy to examine progress, and would answer any questions in a way that I could understand.

Can Improve

- Teach more classes
- Nothing
- Lectures should take up more class time.
- I think that a few more examples would have been helpful on a couple occasions.

<u>Career</u>

- Actually enjoyed a math class. "That dose not happen."
- This corse is required to receive my degree.
- It is a steping stone to presue my goal in becoming a nurse
- I was able to brush up on my math skills that I have forgotton since high school.

 $\bullet\,$ Only somewhat. I do not see the relevance of algebra at this level and working with dosage calculations in nursing. Math 90 is really enough.

- Its helping me get into the classes I need for my RN.
- This has gotten me prepared to take the next level math towards my AA

<u>Other</u>

• fantastic instructor how needs to do Math at higher levels 120, 107

• The instructor was very good at explaining material & pacing subject for each student's need. The math text is terribly confusing and very user <u>un</u>friendly. My learning experience of this subject would have been much easier & less confusing with a more straight forward text.

 $\bullet\,$ I believe more teachers should adapt his teaching style. It's more beneficial to students.

• great teacher