

SIMON FRASER UNIVERSITY

*Office of the Vice-President, Academic*

MEMORANDUM

**To:** Senate

**From:** J.M. Munro, Chair, Senate Committee on Academic Planning

**Subject:** Access to Telephone Registration for New (Semester 1) Students

**Date:** March 14, 1994

---

Action undertaken at the meeting of the Senate Committee on Academic Planning on March 9, 1994 gives rise to the following motion:

**Motion:** "That Senate approve as set forth in S.94 - 29 , the change to the registration priority of new students."

*J.M. Munro*

## SIMON FRASER UNIVERSITY

## MEMORANDUM

To: SCAP

From: Ron Heath  
Secretary, SCUSSubject: Access to Telephone Registration  
for New (Semester 1) Students

Date: March 4, 1994

---

At the meeting of SCUS on March 3, 1994, the attached report from W. Wattamaniuk was received for discussion. As noted in the memorandum, last fall the Office of the Registrar and many departmental offices received complaints from new students and their parents that they found it impossible to gain entry to any courses. We knew from previous experience that course spaces would open up as we moved through the registration and course drop process, but that is small consolation to new students who are inexperienced with the registration system. W. Wattamaniuk notes that 'many of these course places were subsequently released in the first three weeks of classes'. In fact, last fall at the end of week three, with 17,522 course places available at the 100 level, 14,993 were filled. In other words, after registration had shaken out, there was more than enough capacity for all who wanted courses at that level. It is worth noting as well that students entering the University at the semester one level are, for the most part, limited to this narrow range of 100 level courses while both continuing and new advanced entry students have completed prerequisites that give them access to a wider range of courses.

While the recently introduced tuition penalty for course drops has had a significant effect on reducing over-enrolment which resulted in subsequent course drops, a continuing problem is timing. Specifically, UBC will be allowing their scholarship students to commence fall registration in early June, and then the remaining new students are integrated with the registration of upper level students in late June/early July. Currently, our grade 12 students do not get a chance to register until about the first week of August. Since many grade 12 students are choosing between these two institutions, the opportunity to complete course selection at UBC much earlier in the process results in these students committing to UBC because they have course spots there.

It was the unanimous recommendation of SCUS (March 4, 1994) that the current registration priority system be modified. In the following proposal, new students are defined as those who are entering with BC Grade 12 or equivalent as their basis of admission and those who are entering the University for the first time with no transfer credit.

/.

## Recommendation

New students, as defined above, should retain their same relative priority within that group but for their first semester of registration a constant would be added to their current RPN such that the new students would be released to the telephone registration system during the first five days of telephone registration.

Coincidentally, continuing students would also be released to telephone registration based on their RPN with the total number released on any given day determined by the capacity of the telephone registration system.

Based on enrolment last year, the following pattern would be illustrative:

Day 1 - new students with an RPN = or > than 30;

Day 2 - new students with an RPN between 26 and 29 inclusive;

Day 3 - new students with an RPN between 20 and 25 inclusive;

Day 4 - new students with an RPN between 18 and 19 inclusive;

Day 5 - new students with an RPN between 0 and 17 inclusive.

The RPN ranges would be adjusted for any given entry semester so that the new students are relatively evenly distributed over the first five days of the telephone registration process.

It is proposed that this recommendation would take effect for the registration process for the Fall Semester 94-3.

As set out in its responsibilities, SCUS would continue to review the practices and procedures with respect to the Registration Priority System.

**SIMON FRASER UNIVERSITY  
MEMORANDUM**

**TO:** J.M. Munro, VP Academic  
J. Osborne, AVP Academic  
R. Heath, Registrar

**FROM:** Walter Wattamaniuk  
Director, Analytical Studies

**RE:** Direct Entry Students

**DATE:** February 9, 1994

---

Last fall, the Registrar's Office faced the brunt of many complaints from newly admitted secondary students (and their parents) about the scarcity of introductory 100 level course places at SFU due to full course sections.

At the suggestion of Ron Heath, Liny Chan and I decided to look at the transaction records of all new direct entry B. C. secondary students who registered in 1993-3. Our objective was to systematically try to describe and quantify some of the problems they faced as they attempted to register in courses.

We found that on average the chances of success when attempting to add a course at any given time were about one in five. Only one out of every 13 students was able to get all their first choice courses without being denied entry to a course at least once. The main reason was a shortfall of introductory level course places. One-half of all introductory course places were filled before any new secondary students were allowed to register. Many of these course places were subsequently released in the first three weeks of classes. However, at the time, because of their unfamiliarity with the teleregistration system, the inability to get courses probably caused a lot of frustration for students.

The 1993 SCIMO survey which was administered to students in November largely supported the teleregistration evidence. It indicated that 79% of new secondary students were able to get the number of courses they required but only 33% were able to get all the specific courses they wanted. By contrast, these percentages were 83% and 51% for all students surveyed.

I expect that the new course drop policy will largely solve the problem of course hoarding next fall. However this measure in itself will not be enough and if the supply of introductory course places does not increase, students will continue to experience problems with course availability, particularly since the enrollment targets presently before SCAP will increase their numbers next fall.

I do not believe that we can continue on this course of action. Students presumably make decisions to accept our offers of admission on the assumption that courses will be available in their first semester of study. If new students continue to have difficulty obtaining courses in their first semester at SFU, they will eventually begin to reconsider our offers of admission. We stand in danger of gaining a reputation similar to some colleges vis-a-vis course availability.

Our options are fairly straightforward:

- Increase the supply of introductory course places. This involves finding additional resources and poses the problem of determining which specific disciplines and courses to target for increases.
- Reserve a minimum number of course places for secondary students.
- Increase the registration priority for secondary students in their first semester at SFU.

The last two options both involve a reallocation of teleregistration priority. Giving new secondary students highest priority has the advantage of being easiest to implement. It will also ensure that our very most senior students, who are close to graduation and who also have high registration priority, will get the 100 level courses they need in order to graduate. Unfortunately, continuing students who have the lowest priority will have difficulty finding course places. Mitigating this argument is the fact that continuing students are more teleregistration "street-wise", will persevere in their quest for specific courses and will eventually be able to get places, albeit perhaps only after classes start in some cases.

A more detailed report follows.

cc. L. Chan, Analytical Studies

## THE SUPPLY OF INTRODUCTORY 100 LEVEL COURSE PLACES AT SFU

We first identified all 100 level courses offered at SFU in 93-3 which did not require any prerequisites and which had new secondary students registered in them. A complete listing of the 93 courses is attached in Appendix A. For each course we examined the enrollments on:

- Aug 2nd; the day prior to the first release of secondary students.
- End of Week One (Ewk1) of classes.
- End of Week Three (Ewk3) of classes.

Some observations:

### 1. There was a shortfall of course places prior to August 3rd.

- On August 2nd, out of the total supply of 17,400 course places, 8,300, or 48% were filled. The students enrolled thus far had an  $RPN \geq 31$  but did not include any secondary students (all secondary students had lower RPNs).
- Since students have discipline and scheduling preferences, it is not possible to fill 100% of the course places. Historically, the maximum capacity is closer to 90%. This means that there were about 7,400 course places left for the approximately 2,900 students with  $RPN \leq 30$  who subsequently attempted to register. These students, of which 1,500 were new secondary students, each required, on average, 3.5 courses or a total of 11,600 course places.
- This means that a potential short fall of about 2,750 places existed prior to August 3rd.

### 2. Students registered in courses prior to August 3rd were primarily second and third year continuing students. Of the 8,300 filled course places

- 12% were held by new students with  $RPN \geq 31$
- 58% were held by Yr2 continuing students with  $31 \leq RPN \leq 70$
- 22% were held by Yr3 continuing students with  $71 \leq RPN \leq 105$
- 8% were held by Yr4 continuing students with  $106 \leq RPN \leq 105$

### 3. Of the 8,300 filled course places prior to August 3rd about 1,100 course places were subsequently released by Ewk1.

- Yr4 students dropped 170 course places (24% out of 700)
- Yr3 dropped 300 course places (17% out of 1,800)
- Yr2 dropped 600 course places, (12% out of 4,800)
- New students dropped 52 course places (5% out of 1,000)

5.

4. By Ewk1, 91% of all introductory course places were filled (15,700 out of 17,400) with 52 out of 93 courses filled at  $\geq 95\%$  of capacity.

5. By Ewk3, 86% of all introductory course places were filled (15,000 of the 17,400) with 20 out of 93 courses filled at  $\geq 95\%$  of capacity.

6. The five disciplines secondary students had most difficulty with insofar as full courses were English, Philosophy, Psychology, Criminology, and Biosciences.

We looked at all transactions made by secondary students against each of the 93 courses between August 3rd and Ewk1. For each course we counted the number of students who tried to register in the course unsuccessfully between August 3rd and Ewk1. Figure 1 shows the forty courses with the highest course-full transactions. For instance, 633 secondary students tried unsuccessfully to register in English 101 between August 3rd and Ewk1. 531 students tried unsuccessfully to register in Psychology 100 and were turned away.

### **TELEREGISTRATION TRANSACTIONS MADE BY NEW SECONDARY STUDENTS**

We next looked at all teleregistration transactions made by 1,414 new secondary students who registered in the 93 introductory 100 level courses between August 3rd and Ewk1.

We found that during this period each student on average :

- made 27.1 course transactions
- was able to successfully add 5.7 courses
- later dropped 1.5 courses
- was successfully registered in 4.2 courses by Ewk1
- was denied entry 17.7 times because the desired course section was full.
- was denied entry into 6.4 different courses because the course section(s) desired was full
- made 2.2 unsuccessful transactions due to other reasons.

Specifically, we found that by Ewk1 only 108 students out of 1,414 were able to register in all their courses successfully; 177 students had been turned away from one course; 159 students from 2 different courses; 162 students from three different courses; 123 students from four different courses and the remaining 685 students from five or more courses. Figure 2 shows the distribution for all students.

**RESPONSES TO THE 1993 SCIMO STUDENT SURVEY FROM  
SECONDARY STUDENTS**

The Fall, 1993 SCIMO survey was administered to students in November, 1993 and identified 114 students who were new and who came directly from secondary school. Their responses to the survey questions on course availability gave rise to the following observations:

- The average number of courses registered in was 4.3.
- 21% of new secondary students said they were unable to get the number of courses they wanted. This percentage dropped to 16.4% for all students surveyed. Most new secondary students wanted one additional course.
- 66% of new secondary students said that they were unable to get all the specific courses they wanted. This percentage dropped to 48.7% for all students surveyed. Most new secondary students were unable to get 2-3 courses.

## APPENDIX A

## SIMON FRASER UNIVERSITY

## TELEREG STATISTICS FOR INTRODUCTORY FIRST YEAR COURSES, FALL 1993

| <u>COURSE</u> | <u>MaxE</u><br><u>2-Aug</u> | <u>Enroll</u><br><u>2-Aug</u> | <u>Aug 2nd</u><br><u>% Cap</u> | <u>MaxE</u><br><u>Ewk1</u> | <u>ActE</u><br><u>Ewk1</u> | <u>Ewk1</u><br><u>% Cap</u> | <u>MaxE</u><br><u>Ewk3</u> | <u>ActE</u><br><u>Ewk3</u> | <u>Ewk3</u><br><u>% Cap</u> |
|---------------|-----------------------------|-------------------------------|--------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|-----------------------------|
| ARCH101       | 261                         | 120                           | 46%                            | 261                        | 243                        | 93%                         | 291                        | 240                        | 82%                         |
| ARCH105       | 40                          | 33                            | 83%                            | 40                         | 39                         | 98%                         | 40                         | 32                         | 80%                         |
| ARCH131       | 170                         | 76                            | 45%                            | 170                        | 166                        | 98%                         | 170                        | 159                        | 94%                         |
| BISC100       | 120                         | 81                            | 68%                            | 120                        | 117                        | 98%                         | 120                        | 117                        | 98%                         |
| BISC101       | 270                         | 88                            | 33%                            | 270                        | 264                        | 98%                         | 270                        | 252                        | 93%                         |
| BISC102       | 270                         | 88                            | 33%                            | 335                        | 293                        | 87%                         | 335                        | 287                        | 86%                         |
| CHEM101       | 225                         | 71                            | 32%                            | 225                        | 190                        | 84%                         | 225                        | 187                        | 83%                         |
| CHEM102       | 550                         | 74                            | 13%                            | 623                        | 532                        | 85%                         | 623                        | 505                        | 81%                         |
| CHEM106       | 72                          | 25                            | 35%                            | 76                         | 72                         | 95%                         | 76                         | 73                         | 96%                         |
| CHEM115       | 460                         | 55                            | 12%                            | 452                        | 445                        | 98%                         | 452                        | 421                        | 93%                         |
| CHIN100       | 45                          | 23                            | 51%                            | 45                         | 45                         | 100%                        | 45                         | 44                         | 98%                         |
| CMNS110       | 213                         | 190                           | 89%                            | 208                        | 201                        | 97%                         | 208                        | 200                        | 96%                         |
| CMNS130       | 220                         | 195                           | 89%                            | 211                        | 217                        | 103%                        | 211                        | 207                        | 98%                         |
| CMPT1         | 100                         | 67                            | 67%                            | 120                        | 103                        | 86%                         | 100                        | 96                         | 96%                         |
| CMPT100       | 85                          | 57                            | 67%                            | 85                         | 60                         | 71%                         | 85                         | 56                         | 66%                         |
| CMPT101       | 130                         | 39                            | 30%                            | 140                        | 137                        | 98%                         | 130                        | 131                        | 101%                        |
| CMPT103       | 150                         | 100                           | 67%                            | 150                        | 145                        | 97%                         | 150                        | 139                        | 93%                         |
| CMPT105       | 105                         | 69                            | 66%                            | 115                        | 115                        | 100%                        | 110                        | 114                        | 104%                        |
| CNS160        | 48                          | 50                            | 104%                           | 48                         | 44                         | 92%                         | 48                         | 46                         | 96%                         |
| CRIM101       | 344                         | 123                           | 36%                            | 339                        | 321                        | 95%                         | 369                        | 325                        | 88%                         |
| CRIM103       | 169                         | 127                           | 75%                            | 154                        | 145                        | 94%                         | 154                        | 137                        | 89%                         |
| CRIM104       | 113                         | 94                            | 83%                            | 114                        | 110                        | 96%                         | 114                        | 104                        | 91%                         |
| CRIM131       | 174                         | 106                           | 61%                            | 169                        | 161                        | 95%                         | 169                        | 149                        | 88%                         |
| CRIM135       | 157                         | 126                           | 80%                            | 153                        | 148                        | 97%                         | 153                        | 139                        | 91%                         |
| CRIM151       | 101                         | 49                            | 49%                            | 84                         | 65                         | 77%                         | 84                         | 56                         | 67%                         |
| ECON102       | 256                         | 43                            | 17%                            | 288                        | 249                        | 86%                         | 288                        | 233                        | 81%                         |
| ENGL101       | 515                         | 234                           | 45%                            | 494                        | 483                        | 98%                         | 494                        | 463                        | 94%                         |
| ENGL102       | 268                         | 126                           | 47%                            | 264                        | 257                        | 97%                         | 264                        | 246                        | 93%                         |
| ENGL103       | 224                         | 118                           | 53%                            | 224                        | 212                        | 95%                         | 224                        | 200                        | 89%                         |
| ENGL104       | 208                         | 71                            | 34%                            | 208                        | 199                        | 96%                         | 208                        | 188                        | 90%                         |
| ENGL199       | 196                         | 186                           | 95%                            | 186                        | 180                        | 97%                         | 216                        | 184                        | 85%                         |
| FPA104        | 100                         | 87                            | 87%                            | 100                        | 87                         | 87%                         | 100                        | 80                         | 80%                         |
| FPA111        | 136                         | 60                            | 44%                            | 136                        | 129                        | 95%                         | 136                        | 126                        | 93%                         |
| FPA136        | 108                         | 44                            | 41%                            | 108                        | 92                         | 85%                         | 108                        | 85                         | 79%                         |
| FPA151        | 60                          | 56                            | 93%                            | 60                         | 60                         | 100%                        | 60                         | 64                         | 107%                        |
| FPA167        | 130                         | 77                            | 59%                            | 130                        | 120                        | 92%                         | 130                        | 103                        | 79%                         |
| FPA170        | 24                          | 26                            | 108%                           | 24                         | 19                         | 79%                         | 24                         | 19                         | 79%                         |
| FREN100       | 106                         | 52                            | 49%                            | 106                        | 73                         | 69%                         | 106                        | 70                         | 66%                         |
| FREN151       | 154                         | 31                            | 20%                            | 155                        | 134                        | 86%                         | 154                        | 115                        | 75%                         |
| GEOG100       | 250                         | 94                            | 38%                            | 250                        | 245                        | 98%                         | 250                        | 234                        | 94%                         |
| GEOG102       | 64                          | 42                            | 66%                            | 64                         | 61                         | 95%                         | 64                         | 56                         | 88%                         |
| GEOG111       | 240                         | 125                           | 52%                            | 240                        | 235                        | 98%                         | 270                        | 241                        | 89%                         |
| GEOG112       | 64                          | 56                            | 88%                            | 64                         | 61                         | 95%                         | 64                         | 57                         | 89%                         |
| GEOG162       | 192                         | 84                            | 44%                            | 192                        | 179                        | 93%                         | 192                        | 167                        | 87%                         |
| GERM102       | 66                          | 52                            | 79%                            | 76                         | 61                         | 80%                         | 76                         | 52                         | 68%                         |
| GERM141       | 20                          | 20                            | 100%                           | 25                         | 20                         | 80%                         | 25                         | 20                         | 80%                         |
| HIST101       | 340                         | 109                           | 32%                            | 340                        | 297                        | 87%                         | 340                        | 277                        | 81%                         |
| HIST105       | 357                         | 121                           | 34%                            | 357                        | 341                        | 96%                         | 357                        | 323                        | 90%                         |

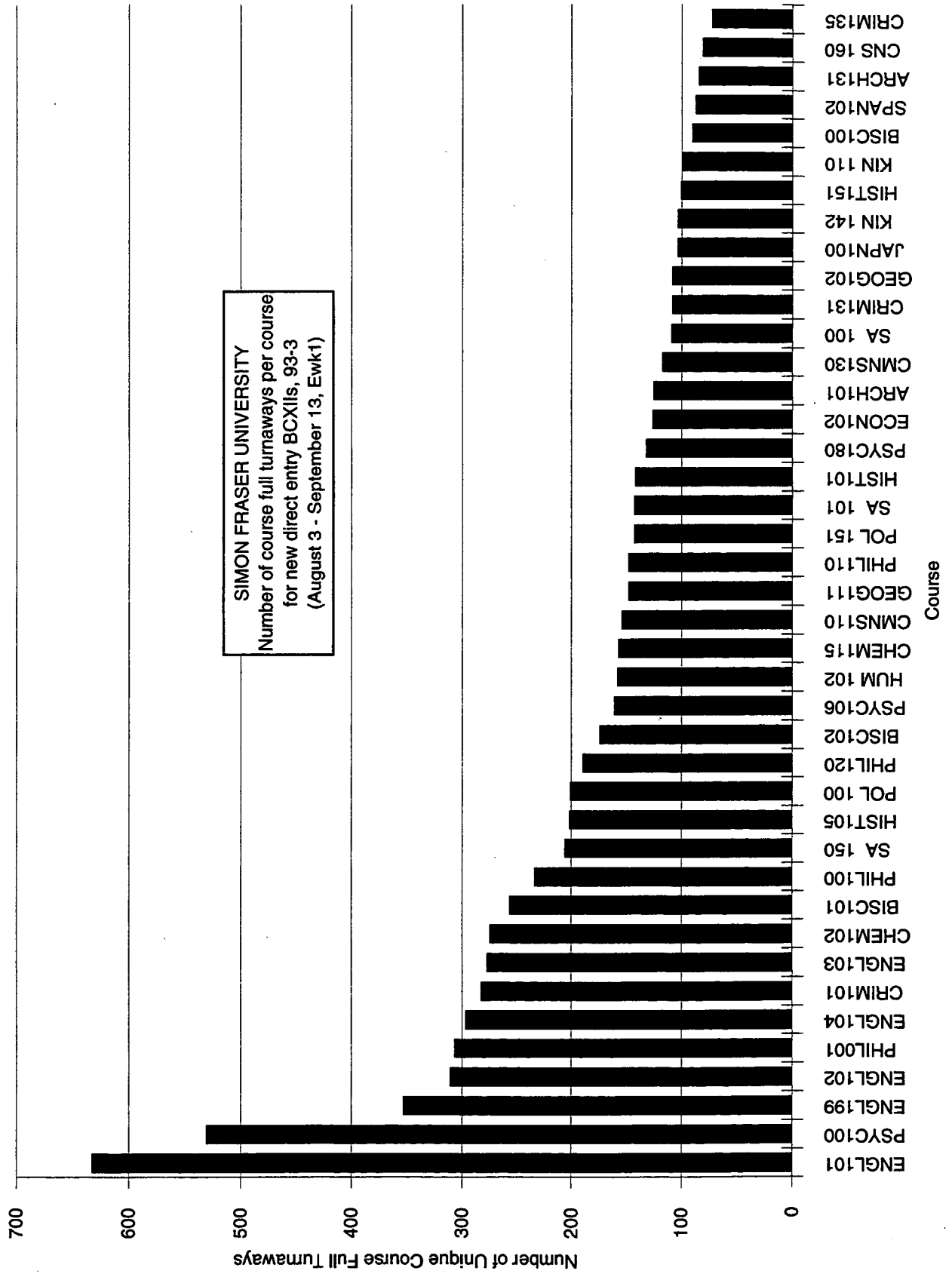
## APPENDIX A

## SIMON FRASER UNIVERSITY

## TELEREK STATISTICS FOR INTRODUCTORY FIRST YEAR COURSES, FALL 1993

| <u>COURSE</u> | <u>MaxE</u><br><u>2-Aug</u> | <u>Enroll</u><br><u>2-Aug</u> | <u>Aug 2nd</u><br><u>% Cap</u> | <u>MaxE</u><br><u>Ewk1</u> | <u>ActE</u><br><u>Ewk1</u> | <u>Ewk1</u><br><u>% Cap</u> | <u>MaxE</u><br><u>Ewk3</u> | <u>ActE</u><br><u>Ewk3</u> | <u>Ewk3</u><br><u>% Cap</u> |
|---------------|-----------------------------|-------------------------------|--------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|-----------------------------|
| HIST146       | 36                          | 36                            | 100%                           | 36                         | 33                         | 92%                         | 36                         | 34                         | 94%                         |
| HIST151       | 136                         | 105                           | 77%                            | 136                        | 133                        | 98%                         | 136                        | 125                        | 92%                         |
| HUM102        | 120                         | 123                           | 103%                           | 120                        | 118                        | 98%                         | 120                        | 114                        | 95%                         |
| HUM161        | 30                          | 31                            | 103%                           | 30                         | 30                         | 100%                        | 30                         | 26                         | 87%                         |
| JAPN100       | 60                          | 64                            | 107%                           | 60                         | 56                         | 93%                         | 60                         | 61                         | 102%                        |
| KIN105        | 60                          | 60                            | 100%                           | 51                         | 51                         | 100%                        | 51                         | 49                         | 96%                         |
| KIN110        | 270                         | 221                           | 82%                            | 260                        | 253                        | 97%                         | 260                        | 238                        | 92%                         |
| KIN140        | 160                         | 141                           | 88%                            | 152                        | 148                        | 97%                         | 152                        | 147                        | 97%                         |
| KIN141        | 45                          | 15                            | 33%                            | 45                         | 39                         | 87%                         | 45                         | 30                         | 67%                         |
| KIN142        | 210                         | 153                           | 73%                            | 231                        | 223                        | 97%                         | 231                        | 215                        | 93%                         |
| KIN143        | 180                         | 153                           | 85%                            | 170                        | 165                        | 97%                         | 170                        | 161                        | 95%                         |
| LAS100        | 60                          | 32                            | 53%                            | 60                         | 59                         | 98%                         | 60                         | 53                         | 88%                         |
| LING100       | 280                         | 76                            | 27%                            | 280                        | 211                        | 75%                         | 280                        | 195                        | 70%                         |
| LING110       | 410                         | 159                           | 39%                            | 400                        | 325                        | 81%                         | 400                        | 297                        | 74%                         |
| LING130       | 140                         | 88                            | 63%                            | 140                        | 119                        | 85%                         | 170                        | 126                        | 74%                         |
| MATH100       | 300                         | 76                            | 25%                            | 300                        | 247                        | 82%                         | 300                        | 216                        | 72%                         |
| MATH110       | 285                         | 76                            | 27%                            | 285                        | 165                        | 58%                         | 285                        | 148                        | 52%                         |
| MATH144       | 60                          | 17                            | 28%                            | 60                         | 33                         | 55%                         | 60                         | 29                         | 48%                         |
| MATH151       | 430                         | 39                            | 9%                             | 489                        | 397                        | 81%                         | 489                        | 389                        | 80%                         |
| MATH154       | 275                         | 49                            | 18%                            | 275                        | 254                        | 92%                         | 275                        | 244                        | 89%                         |
| MATH157       | 350                         | 85                            | 24%                            | 350                        | 258                        | 74%                         | 350                        | 256                        | 73%                         |
| MATH161       | 35                          | 3                             | 9%                             | 35                         | 13                         | 37%                         | 35                         | 13                         | 37%                         |
| MATH190       | 210                         | 79                            | 38%                            | 210                        | 125                        | 60%                         | 210                        | 112                        | 53%                         |
| PHIL1         | 413                         | 194                           | 47%                            | 349                        | 335                        | 96%                         | 335                        | 322                        | 96%                         |
| PHIL100       | 192                         | 103                           | 54%                            | 192                        | 183                        | 95%                         | 180                        | 170                        | 94%                         |
| PHIL110       | 226                         | 92                            | 41%                            | 219                        | 204                        | 93%                         | 219                        | 188                        | 86%                         |
| PHIL120       | 174                         | 75                            | 43%                            | 142                        | 137                        | 96%                         | 135                        | 126                        | 93%                         |
| PHIL150       | 85                          | 37                            | 44%                            | 85                         | 81                         | 95%                         | 85                         | 74                         | 87%                         |
| PHYS100       | 320                         | 93                            | 29%                            | 330                        | 265                        | 80%                         | 330                        | 245                        | 74%                         |
| PHYS101       | 240                         | 121                           | 50%                            | 302                        | 241                        | 80%                         | 302                        | 239                        | 79%                         |
| PHYS120       | 250                         | 24                            | 10%                            | 250                        | 206                        | 82%                         | 250                        | 188                        | 75%                         |
| POL100        | 204                         | 153                           | 75%                            | 204                        | 198                        | 97%                         | 204                        | 194                        | 95%                         |
| POL151        | 153                         | 141                           | 92%                            | 153                        | 149                        | 97%                         | 183                        | 163                        | 89%                         |
| PSYC100       | 604                         | 242                           | 40%                            | 536                        | 584                        | 109%                        | 536                        | 568                        | 106%                        |
| PSYC102       | 264                         | 142                           | 54%                            | 240                        | 232                        | 97%                         | 240                        | 212                        | 88%                         |
| PSYC106       | 136                         | 127                           | 93%                            | 120                        | 119                        | 99%                         | 120                        | 105                        | 88%                         |
| PSYC180       | 136                         | 122                           | 90%                            | 120                        | 126                        | 105%                        | 120                        | 115                        | 96%                         |
| RUSS100       | 40                          | 29                            | 73%                            | 40                         | 38                         | 95%                         | 40                         | 35                         | 88%                         |
| SA100         | 126                         | 71                            | 56%                            | 112                        | 117                        | 104%                        | 142                        | 110                        | 77%                         |
| SA101         | 126                         | 87                            | 69%                            | 112                        | 112                        | 100%                        | 142                        | 115                        | 81%                         |
| SA150         | 297                         | 130                           | 44%                            | 269                        | 279                        | 104%                        | 269                        | 263                        | 98%                         |
| SPAN102       | 152                         | 116                           | 76%                            | 152                        | 135                        | 89%                         | 144                        | 128                        | 89%                         |
| STAT101       | 45                          | 36                            | 80%                            | 55                         | 40                         | 73%                         | 55                         | 34                         | 62%                         |
| STAT103       | 200                         | 98                            | 49%                            | 205                        | 144                        | 70%                         | 230                        | 146                        | 63%                         |
| WS100         | 179                         | 140                           | 78%                            | 174                        | 166                        | 95%                         | 174                        | 156                        | 90%                         |
| TOTAL         | 17374                       | 8294                          | 48%                            | 17334                      | 15718                      | 91%                         | 17522                      | 14993                      | 86%                         |

**FIGURE 1.**



**FIGURE 2**

