Fact Sheet
Academic Information
for Transfer Students

This fact sheet is designed to give our transfer students information to assist them in understanding the academic requirements of the Ernest Mario School of Pharmacy. Please keep this fact sheet for future reference.

Basic Requirements for Class Standing

Transferring into the School of Pharmacy assumes that you have completed all prerequisite courses in the curriculum up to a certain point. A rough guide of your class standing is obtainable by reviewing the six-year all-Pharm.D. Curriculum Sheet available online at our website. As you review the Curriculum Sheet, please keep in mind the following rules:

- Credit will only be given for courses in which a grade of “C” or better has been earned from an accredited college or university. A grade of C minus (C-) will not transfer for credit. Courses in which grades of Pass/Fail have been awarded are not acceptable.

- Coursework will be considered for transfer only if the department offering the course at your previous school recognizes the course for major credit. If the catalog from the original school states “not for the major,” we will not transfer the credit. Many times specially titled science courses are offered for non-major students.

- Although our program requires a special Statistics course, we may transfer credit for other Statistics courses.

- Our program also requires a Microeconomics course as prerequisite to the administration courses in our third year. Coursework in Macroeconomics or an introduction course combining the two modes of economic study are not accepted for this requirement.

- To satisfy the Physics course requirement, we will accept two semesters of Calculus-based General Physics with at least one semester of lab.

- A course in Calculus must be a 4.0 credit course including an introduction to integration. Two 3.0-credit sequential Calculus courses will be accepted.

- Two introductory English writing courses are required. These must specifically be composition courses. Writing-intensive literature courses or other courses are not acceptable.

- The School requires two years of one foreign language in high school to enter the program. Therefore, to receive transfer credit for a college level foreign language course, it must be at the 3rd semester level in college if it is the same language one studied in high school.

- The length of time since you have taken a science or math course may adversely affect your performance in several professional courses. If this hiatus from studies has been long, special recommendations may have to be considered to avoid future academic difficulty.

Humanities/Social Science Electives

In addition to the specific courses listed in the curriculum, our students must take a total of six elective courses in the humanities and/or social sciences. Each course must be three credit hours or greater. Please use the following as guidelines when selecting your humanities and social science electives:

- Elective credit will not be given for any course offered in any other discipline that discusses drugs, health care, or health related topics. If you are unsure of a course offered at Rutgers, be sure to seek advice from the Office of Academic Services located in Room 102C.
• Elective credit will not be given for studio courses, correspondence courses, or seminar courses.

• One of these courses must be either Psychology or Sociology.

• Foreign Languages are humanities but we require 2 years of one foreign language to enter the School. If you wish to continue studying that language in college, you must start at a level higher than the equivalent two high school years of that language. One year of a foreign language in high school is equivalent to one semester in college. As such the School uses the following matrix to determine where to begin granting credit for foreign language coursework:

<table>
<thead>
<tr>
<th>Number of Years, High School</th>
<th>Equivalent Number of College Semesters</th>
<th>Starting Semester for Granting Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 years</td>
<td>2 semesters</td>
<td>3rd semester</td>
</tr>
<tr>
<td>3 years</td>
<td>3 semesters</td>
<td>4th semester</td>
</tr>
<tr>
<td>4 years</td>
<td>4 semesters</td>
<td>5th semester</td>
</tr>
</tbody>
</table>

• Therefore, because you may continue your studies in that language, you must contact the department and request a language placement test. Based upon these test results, the department will place you into the appropriate course based upon your proficiency on the exam. Be aware that we will only accept the third semester course and nothing less, even if the department recommends that you receive degree credit.

### Registration Information

As an incoming transfer student, your first semester’s registration will be completed by the Office of Academic Services. Please review carefully your fall schedule using WebReg (http://webreg.rutgers.edu). This will provide ways to determine where your courses will be held, at what time, and on what days of the week. A complete listing of the Schedule of Classes is available at http://scheduling.rutgers.edu/.

Beginning with the registration cycle for the spring semester, you will be permitted to develop your schedule using this option. Before you plan any selection of courses not specifically prescribed in the program of study, please seek advice from the Office of Academic Services.

### Statistics Review for Transfer Students

**Accuracy:**

Nearness of a measurement to its “true value,” expressed in terms of Error

1. Absolute Error: \( E = \text{Observed Value} - \text{True Value} \)

2. Relative Error: \( \text{R.E.} = \frac{\text{Absolute Error}}{\text{True Value}} \)

\( \times 100 = \text{percent R.E.} \)

\( \times 1000 = \text{parts per thousand} \)

\( \times 1,000,000 = \text{parts per million} \)

Note: any “relative statistic” is that statistic divided by the mean

**Precision:**

Differences between measurements of the same quantity

**Types of Errors:**

1. Determinate- have a definite size, affect all members of a set equally, can be measured and corrected for, e.g., bias, instrumental error.

2. Indeterminate- random, vary nonreproducibly from one sample to another, not the same magnitude or direction from one sample to another.

Equal chance of being high or low, small errors more probable than large. Follows Gaussian (normal) distribution.

Properties of Gaussian distribution allow estimation of Accuracy and Precision.

1. Estimators of Accuracy

   a) Mean- average

\[ X = \frac{\sum x_i}{N} \]
b) **Median** - result which is exactly in the middle

c) **Mode** - most frequently occurring value

2. **Estimators of Precision**

   a) **Range** - difference between the highest and lowest values

   b) **Standard Deviation** -

   \[
   \sqrt{\frac{\sum (x - \bar{x})^2}{N-1}}
   \]

   c) **Variance** -

   \[ S^2 \]

   d) **Relative Standard Deviation** -

   \[ RSD = \frac{S}{\bar{x}} \]

   e) **Coefficient of Variation** -

   \[ CV = 100 \times RSD = \%RSD \]

**Confidence Limits (CL):** Used to predict region in which “true value” lies with a particular level of confidence

\[
CL = x \pm \frac{ts}{\sqrt{N}}
\]

where

\[ t = \text{confidence level (includes percent probability and degrees of freedom)} \]

and

\[ \frac{ts}{\sqrt{N}} \]

is called the Standard Error of the Mean

**Q - test:** used for determining validity of outlier results

\[ Q = \frac{\text{outlier - nearest neighbor}}{\text{range}} \]

If Q(calculated) is larger than the Q value in the lookup table, the outlier result can be eliminated.

**Regression Analysis (Least Squares):** Allows determination of the best equation to describe a set of data points

**Linear Regression (Linear Least Squares):** the linear equation \( Y = a + bx \) is fitted by the following equations:

\[
slope = b = \frac{N \sum xy - \sum y \sum x}{N \sum x^2 - (\sum x)^2}
\]
Correlation Coefficient,

\[ R = -1 \leq R \leq 1 \]

intercept \( = a = \frac{\sum Y - (slope)\sum x}{N} = Y - (slope)X \)

When R is negative, the line slopes downward from left to right;
When R is positive, the line slopes upward from left to right.

When R is close to 1 or -1, the fit of the regression line is best and a linear equation is appropriate. When R is lower than about 0.9, a curvilinear regression is probably more appropriate.

### Scholastic Standing

Students in the School of Pharmacy are expected to maintain a high level of academic performance.

- All students admitted to the professional years of the Doctor of Pharmacy Program will be expected to maintain both a Professional and an Overall GPA of at least 2.500.

Professional GPAs are calculated by using the grades attained for courses offered in School 30 and/or 31. Overall GPAs are calculated by using all of the grades attained for all of the courses taken at Rutgers University.

The academic performance standards expected of Pharmacy students are outlined in the New Brunswick Undergraduate Catalog in the section for the School of Pharmacy. Students need to become familiar with these expectations. If you have any questions concerning these standards, you should contact the Assistant Dean for Academic Services or the Chair of the Scholastic Standing Committee.

### Further Questions on Academics

Answers to questions on academics may be obtained by calling the Office of Academic Services at (732) 445-2675 and choosing option 2 from the main menu. Other information may be found at the School of Pharmacy website. Point your browser to http://pharmacy.rutgers.edu/ for further information.