Pre-Professional Health Science Programs
Learning Outcomes and Assessment

Program: Pre-Professional Health Science

Selections within the program (abbreviations):

- Pre-Dental Hygiene (PDHY)
- Pre-Health Information Management (PHIM)
- Pre-Dentistry (PDEN)
- Pre-Medicine (PMED)
- Pre-Medical Technology (PMT)
- Pre-Occupational Therapy (POTH)
- Pre-Optometry (POPT)
- Pre-Pharmacy (PPHA)
- Pre-Physical Therapy (PPTH)

These pre-professional health science programs are advising programs, and thus are all non-degree programs at Tennessee Technological University. Students desiring or required to obtain a bachelor’s degree before entrance to professional school will typically change majors at the end of their junior year, but still take advantage of the advising services this program offers. Tennessee Tech provides undergraduate coursework that satisfies the professional school admission requirements for each of these program selections. In addition to the mandatory advising the pre-professional advisors perform during the University's official advising time, pre-professional health science advisors offer additional services of which our students are encouraged to take advantage, including mentoring, advising, committee interview and evaluation, and thoughtful discussions about the health professions.

Program Outcome I

Achieve a rate of 10% of the total number of students enrolled in these programs (junior through seniors) admitted into a professional health science program.

Assessment Method for Measuring Progress on Objective:

Assessment is conducted by tracking the percentage of students (of the whole) admitted into professional health science programs. Beginning in 2012, and since most health science professional schools now use online, centralized application services, we access admissions data on our students (accepted, denied acceptance, matriculated, etc.) via “Advisor Portals” to collect the required data for more accurate assessment.
Results of Assessment and Summary of Key Continuous Improvement Achievements:

See Table 1 below. On average, 21.5% of our pre-professional enrollees have gained admission into a professional program between 2005-2010. It is important to note that ‘% admitted (enrollees)’ is the percent admitted of the total students in the program (i.e. 34 admitted/184 pre-professional enrollees = 18% for 2009-2010.) To improve the accuracy of our data and allow for more in depth assessment, beginning this year (via the advisor portal mentioned above) we will also track the percentage of those accepted versus those that applied (class). We will report ‘% admitted (class)’ as the number of students admitted divided by the total number of students who applied during a given application year. We will take advantage of the information gathered on admission rates by this new portal method in addition to tracking our students’ acceptances by word of mouth as in previous assessments.

Program Outcome II

Institute a plan for selective admission into the pre-professional health science programs from the Arts and Sciences Student Success Center program.

Assessment Method for Measuring Progress on Objective:

We are analyzing the entering ACT scores of new freshmen over a previous 10 year period (1994-2004) and determining the required ACT scores that would predict successful matriculation into a professional school in order to provide a means to enroll students (that lack the required ACT minimum scores) into an alternative General Health Studies major that provides additional personalized advising in other health related areas.

Results of Assessment and Summary of Key Continuous Improvement Achievements:

To be successful in obtaining admission to a professional school, a minimum composite ACT of 21 was selected in addition to a minimum ACT math subscore of 21 and a high school GPA of 3.0. These metrics were set in 2005 as entrance requirements and those without those numbers were admitted to TTU as a General Health Science Major (GHS). Any GHS major that obtains a collegiate GPA of 3.0 was given the opportunity to transfer into the pre-professional program. To analyze the data for 2005-2010, we examined the composite and math ACT sub-scores of all students who were admitted to professional school over this period. Students whose ACT scores (in math, composite, or both) were below 21 were analyzed further to determine if they were admitted to the university as a GHS student, transfer student, or a different major. We then totaled the number of students who began their university tenure as a General Health Sciences student. See Table 1 below. Between 2005-2010, an average of one student who began their TTU career as a GHS student and took advantage of the services offered by the Pre-Professional Health Sciences Program gained admission to health professional school.
Furthermore, our data indicate that at an average of 90% and 85% of students admitted to professional school have composite and math ACT scores of 21 or better, respectively. Due to these observations, we believe these metrics are working. We also feel this plan helps students more quickly focus on a career goal that is within their background, work ethic and general ability.

Learning Outcome I

At least 50% of all pre-professional health science students will participate in the Chemical-Medical Science Club (Chem Med Club) in order to broaden their knowledge of health science careers.

Assessment Method for Measuring Progress on Objective:

Attendance at Chemical-Medical Science Club Meetings

Results of Assessment and Summary of Key Continuous Improvement Achievements:

Over the five-year period between 2005-2010, an average of 58% of pre-professional enrollees were dues paying Chem Med Club members. To improve the accuracy of our data moving forward, we will look at the number of students who are active participants in the Chem Med Club. We will define “active” by having attended at least one-third of the club meetings throughout an academic year.

Table I: Statistics on Pre-Professional Health Science Programs 2005-2010

<table>
<thead>
<tr>
<th></th>
<th>2009-10</th>
<th>2008-09</th>
<th>2007-08</th>
<th>2006-07</th>
<th>2005-06</th>
<th>5-year average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Prof Enrollees</td>
<td>184</td>
<td>170</td>
<td>176</td>
<td>176</td>
<td>194</td>
<td>180.00</td>
</tr>
<tr>
<td>Chem-Med (dues paying)</td>
<td>84</td>
<td>105</td>
<td>99</td>
<td>74</td>
<td>163</td>
<td>105.00</td>
</tr>
<tr>
<td>% Chem Med</td>
<td>46</td>
<td>62</td>
<td>56</td>
<td>42</td>
<td>84</td>
<td>57.95</td>
</tr>
<tr>
<td># Admitted to Prof. Sch.</td>
<td>34</td>
<td>47</td>
<td>48</td>
<td>29</td>
<td>35</td>
<td>38.60</td>
</tr>
<tr>
<td>* % Admitted (enrollees)</td>
<td>18</td>
<td>28</td>
<td>27</td>
<td>16</td>
<td>18</td>
<td>21.58</td>
</tr>
<tr>
<td>GHS Enrollees</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0.80</td>
</tr>
<tr>
<td>** # with ACT data</td>
<td>33</td>
<td>44</td>
<td>46</td>
<td>29</td>
<td>34</td>
<td>37.20</td>
</tr>
<tr>
<td>** comp ACT &gt;=21</td>
<td>27</td>
<td>40</td>
<td>43</td>
<td>27</td>
<td>31</td>
<td>33.60</td>
</tr>
<tr>
<td>** % comp ACT &gt;=21</td>
<td>81.82</td>
<td>90.91</td>
<td>93.48</td>
<td>93.10</td>
<td>91.18</td>
<td>90.10</td>
</tr>
<tr>
<td>** math ACT &gt;=21</td>
<td>27</td>
<td>38</td>
<td>43</td>
<td>24</td>
<td>28</td>
<td>32.00</td>
</tr>
<tr>
<td>** % math ACT &gt;=21</td>
<td>81.82</td>
<td>86.36</td>
<td>93.48</td>
<td>82.76</td>
<td>82.35</td>
<td>85.35</td>
</tr>
</tbody>
</table>

*Note:* The reported '% Admitted (enrollees)' is the percentage of the total number of program majors that were admitted to a professional school (i.e. 34 admitted/184 pre-professional enrollees = 18% for 2009-2010.)

**Note:** ACT data is based on the # Admitted to Professional School above.