Pharmacy Technician AAS Program

Expansion of Existing Program

State Submission

Mark Wilson, President
May 2013
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WESTERN DAKOTA TECHNICAL INSTITUTE (WDT)
Pharmacy Technician AAS Program
Expansion of Existing Program

EXECUTIVE SUMMARY
Western Dakota Technical Institute requests approval to add an Associate of Applied Science option to its current Pharmacy Technician program. This new option will be two years in length and will result in an AAS degree. WDT would continue to offer a diploma in Pharmacy Technician so students have multiple options and exit points.

WDT requests permission to begin offering this program option in Fall 2013.

Graduates will be prepared to work in retail, hospital, and other pharmacies through the Western Dakota Tech service region. Achieving an AAS degree will make graduates more employable when they enter the workforce. As stated by members of the program’s advisory committee, pharmacy technicians with an associates degree would be able to perform a wider range of duties in the pharmacy. The additional technical classes to the associates degree option will prepare students for the constantly expanding adjudication of insurance the retail pharmacies deal with, the increased reliance on technicians to be able to decipher prescriptions without assistance and expand student knowledge of how medications work so technicians can better survey patients before counseling and to assist the pharmacist in screening for interactions and contraindications. That will allow pharmacists to spend more time performing direct patient care services. In addition, having a higher level degree will prepare students for quicker transitions to management-level positions in the pharmacy industry.

The expanded program would give students additional technical skills that are being demanded by the pharmacy industry. Students who earn the AAS degree will be more valuable to their employers.

The expanded curriculum also will prepare students for the South Dakota requirement that all pharmacy technicians be certified beginning in 2014. Students with the additional coursework required to achieve the proposed associates degree would be better prepared to successfully complete the national certification exam.

Western Dakota Tech is an excellent fit for this new program option as we already have a successful diploma program in Pharmacy Technology. Adding a new option will build on that success while not adding an extensive amount of new expenditures.

IDENTIFICATION AND DESCRIPTION OF THE PROGRAM
The Pharmacy Technician AAS degree option is designed for students interested in serving their communities as Pharmacy Technicians. This program will prepare students to apply technical
knowledge and skills to the field of pharmacy technician. Students will be trained in the areas of pharmacology, medical terminology, pharmacy operations, pharmacy calculations, prescription abbreviations and signa decoding, chemistry, medical insurance, pharmacokinetics, pharmacodynamics, math, English, and communication. The knowledge and skills above and beyond what is available in the diploma program will create graduates who are ready for the expanding duties of pharmacy technicians.

This program also will provide education and training in soft skills such as communication and math. Students will learn how to complete the following duties:

- Take needed information so pharmacists can fill a prescription
- Count tablets and measure amounts of other medication for prescriptions
- Compound or mix medications, such as preparing ointments
- Package and label prescriptions
- Accept payment for prescriptions and process insurance claims
- Do routine pharmacy tasks, such as answering phone calls from customers
- Decipher prescriptions without assistance
- Understand how medications work
- Survey patients before counseling
- Assist the pharmacist in screening for interactions and contraindications

**OBJECTIVES AND PURPOSE OF THE PROGRAM**

The primary objective of the Pharmacy Technician program is to better prepare students with the necessary skills to be successful as pharmacy techs. The AAS option would give students additional knowledge and training in areas such as math, writing, prescription abbreviations and signa decoding, chemistry, medical insurance, pharmacokinetics, and pharmacodynamics. The knowledge and skills above and beyond what is available in the diploma program will create graduates who are ready for the expanding duties of pharmacy technicians. Achieving an AAS degree would prepare the students for the constantly expanding adjudication of insurance the retail pharmacies deal with, the increased reliance on technicians to be able to decipher prescriptions without assistance and expand student knowledge of how medications work so the technician can better survey patients before counseling and to assist the pharmacist in screening for interactions and contraindications.

The program will articulate appropriate high school credits whenever possible, and there could be dual enrollment possibilities for high school students.

After successful completion of all program requirements, the graduate will:

- Demonstrate personal accountability as a pharmacy technician
- Relate pharmaceuticals to disease processes
- Assess distinct criteria to resolve problems and make appropriate decisions
- Communicate pharmaceutical information with patients and medical staff verbally, in writing, or electronically
- Demonstrate accurate use of pharmacy equipment
- Solve problems as part of a team effort
- Value the importance of teamwork
- Demonstrate respect to patients, healthcare providers, and pharmacy co-workers
- Develop the working knowledge, professionalism, and skills expected of an entry-level pharmacy technician
- Understand the impact of medical insurance on pharmacies and patients
- Explain how the body affects drugs and how drugs affect the body

**Methods of Attaining the Objectives of the Program**

WDT provides students with skill-based development in classroom and lab settings on the WDT campus before students enter clinical sites in the community.

As with all WDT programs, a variety of services and support are available to students in the Pharmacy Technician program. This includes expanded tutoring and office hours provided by full-time program faculty and at WDT’s Academic Success Center. Access to current medical reference materials and resources is available via WDT library services.

The Pharmacy Technician program will continue to work closely with its industry advisory board composed of representatives who are from industry. The Advisory Board approves the curriculum, discusses and recommends equipment purchases, and assists in forming partnerships to help WDT with innovative curriculum, internships, and presentations.

The program’s Advisory Board is supportive of this change to an Associate of Applied Science degree because industry is demanding pharmacy technicians with additional and more advanced skills. This program expansion will meet that need. It also will address the desire of industry to have employees who are more committed to the field. Earning an associates degree would require a deeper level of commitment from students and would help them better understand the role of pharmacy technicians and the demands of the position and career. In addition, the associates degree option would enhance each student’s insurance knowledge, their signa decoding and abbreviation skills, and their understanding of the impact the body has on drugs and the impact drugs have on the body. The additional general education courses would provide students with the additional math, English, and communication skills employers are seeking.

**Population Served by the Program**

The Pharmacy Technician program will be available to all interested individuals who successfully meet the WDT admissions criteria established for the program. The program will be open to full-time and part-time students. All applicants must be high school graduates and take an admissions test to establish reading, writing, and math abilities. No restriction will be made regarding race, creed, gender or age. The program will draw students primarily from South Dakota. The opportunities for employment in the field will be primarily in western South Dakota.
The program also will appeal to people in the workforce who already have a diploma in the field and are seeking additional training so they are prepared for certification and for the expanding role of pharmacy technicians.

**Projected Three-Year Budget**
This program will be staffed by current instructors. Current institutional budgets for the diploma program will cover the needs of the new AAS option.

**Program Competencies and Entry and Exit Points**
Entry point: Fall Semester
Exit point: After completion of all coursework
Job titles: See Appendix A

**Statement of Non-Duplication**
Western Dakota Tech is proposing this program option to meet regional industry needs for pharmacy technicians. While there are other pharmacy technician programs in South Dakota, they are not meeting the needs of the healthcare industry in western South Dakota. Industry representatives are seeking pharmacy technicians who have more advanced skills and who are prepared to do more in the pharmacy so pharmacists can spend more time engaged in direct patient care.

**Curriculum Design**
See Appendix B for curriculum outline.

**Wage Factor**
See Appendix A

**Suggested CIP Code**

51.0805 Pharmacy Technician/Assistant. A program that prepares individuals, under the supervision of pharmacists, to prepare medications, provide medications and related assistance to patients, and manage pharmacy clinical and business operations. Includes instruction in medical and pharmaceutical terminology; principles of pharmacology and pharmaceutics; drug identification; pharmacy laboratory procedures; prescription interpretation; patient communication and education; safety procedures; record-keeping; measurement and testing techniques;
pharmacy business operations; prescription preparation; logistics and dispensing operations; and applicable standards and regulations.

**APPENDIX**

A. Wage factor and job titles  
B. Curriculum outline  
C. Letters of Support
## APPENDIX A

South Dakota Employment Projections 2010-2020 and Wage Data for Related Occupations

<table>
<thead>
<tr>
<th>SOC</th>
<th>Occupational Title</th>
<th>2010 Base Number of Jobs</th>
<th>2020 Projected Number of Jobs</th>
<th>Percent Change</th>
<th>Average Annual Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
<td>1155</td>
<td>1460</td>
<td>26.4</td>
<td>59</td>
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South Dakota Wage Estimates for SD, Rapid City, and West

<table>
<thead>
<tr>
<th>AREA</th>
<th>SOC CODE</th>
<th>Occupation</th>
<th>Workers</th>
<th>Avg. Wage</th>
<th>10th</th>
<th>25th</th>
<th>50th</th>
<th>75th</th>
<th>90th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
<td>1080</td>
<td>14.19</td>
<td>10.78</td>
<td>12.39</td>
<td>13.91</td>
<td>15.94</td>
<td>18.28</td>
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<tr>
<td>Rapid City MSA</td>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
<td>120</td>
<td>15.49</td>
<td>11.09</td>
<td>13.03</td>
<td>15.56</td>
<td>17.97</td>
<td>19.99</td>
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<tr>
<td>West</td>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
<td>60</td>
<td>15.55</td>
<td>12.24</td>
<td>13.26</td>
<td>14.95</td>
<td>17.87</td>
<td>20.58</td>
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United States Employment Projections 2010-2020 and Wage Data for Related Occupations

<table>
<thead>
<tr>
<th>SOC</th>
<th>Occupational Title</th>
<th>2010 Base Number of Jobs</th>
<th>2020 Projected Number of Jobs</th>
<th>Percent Change</th>
<th>Average Annual Demand</th>
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</thead>
<tbody>
<tr>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
<td>334,400</td>
<td>442,600</td>
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<td>166,300</td>
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Wage Estimates for United States

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<tr>
<th>SOC</th>
<th>Occupational Title</th>
<th>2012 Workers</th>
<th>Avg. Wage</th>
<th>10th</th>
<th>25th</th>
<th>50th</th>
<th>75th</th>
<th>90th</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
<td>334,000</td>
<td>14.63</td>
<td>9.89</td>
<td>11.69</td>
<td>14.10</td>
<td>17.22</td>
<td>20.38</td>
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</table>
# APPENDIX B

## First Semester

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HC213</td>
<td>Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>HC114</td>
<td>Anatomy &amp; Physiology for the Health Professions</td>
<td>3</td>
</tr>
<tr>
<td>PHR111</td>
<td>Pharmacy I</td>
<td>3</td>
</tr>
<tr>
<td>CIS105</td>
<td>Microcomputer Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>PHR110</td>
<td>Pharmacology/Pharmaceutical Products I</td>
<td>3</td>
</tr>
<tr>
<td>MATH100</td>
<td>Elementary Algebra</td>
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**TOTAL CREDITS 18**

## Second Semester

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<tr>
<td>PHR120</td>
<td>Pharmacy II</td>
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<tr>
<td>PHR121</td>
<td>Pharmacology/Pharmaceutical Products II</td>
<td>3</td>
</tr>
<tr>
<td>PHR140</td>
<td>Pharmacy Practical Lab</td>
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<tr>
<td>PHR127</td>
<td>Pharmacy Calculations</td>
<td>2</td>
</tr>
<tr>
<td>PHR128</td>
<td>Pharmacy Operations</td>
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<tr>
<td>PHR122</td>
<td>Pharmacy Law and Ethics</td>
<td>2</td>
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<tr>
<td>PSYC101</td>
<td>General Psychology</td>
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<tr>
<td>PSYC103</td>
<td>Human Relations in the Workplace</td>
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**TOTAL CREDITS 16**

## Third Semester

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<td>PHR131</td>
<td>Clinical Rotations</td>
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**TOTAL CREDITS 8**

## Fourth Semester

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SOC100</td>
<td>Introduction to Sociology</td>
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<tr>
<td>ENGL101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH101</td>
<td>Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PHR129</td>
<td>Rx Abbreviations/Sig Decoding</td>
<td>2</td>
</tr>
<tr>
<td>HC103</td>
<td>Professionalism in Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>ENGL201</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>SPCM101</td>
<td>Fundamentals of Speech</td>
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**TOTAL CREDITS 15**

## Fifth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>CHEM106</td>
<td>Chemistry Survey</td>
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<td>CHEM106L</td>
<td>Chemistry Survey Lab</td>
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<tr>
<td>ENGL202</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>PHRXXX</td>
<td>Pharmacokinetics/Pharmacodynamics</td>
<td>3</td>
</tr>
<tr>
<td>PHR130</td>
<td>US Healthcare and Medical Insurance</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL CREDITS 13**
March 14, 2013

Mark Wilson, President
Western Dakota Tech
800 Mickelson Drive
Rapid City SD 57703

Dear Mr. Wilson:

I have been a member of the Western Dakota Tech Pharmacy Technician Advisory Committee for several years. Most recently, I am the chairman for that group. At the present time, I employ approximately 50 pharmacy technicians. I have been involved in pharmacy for more than 40 years and have seen vast changes in that time in the need for and how we utilized pharmacy technicians in both the hospital and the community setting.

As a major employer of pharmacy technicians, I ask my technicians to continue to expand and grow their role in the Pharmacy Department. Their growth and development has a direct impact on the amount of time pharmacists have to provide clinical services to our patients. As technicians advance their role in the pharmacy in relationship to the distributive process, it allows pharmacists to spend more time in direct patient care services.

The expansion of the Pharmacy Technician Program to a 2-year program for some of your graduates will aid us in our ability to expand their current roles in our facility and to ultimately extend the entire department's clinical and distributive services. The role they play today is vital. Expanding their role is critical to our ability to meet the needs of the future in the world of pharmacy.

Should you have any questions or concerns, please do not hesitate to reach out to me.

Respectfully,

[Signature]

Dana Darger, RPh
Director of Pharmacy
Rapid City Regional Hospital

cc: Julia Becker
Earl R. McKinstry  
RPh, MS  
13053 Big Elk Dr.  
Piedmont, South Dakota 57769

7 February 2013

Mr. Mark Wilson  
Western Dakota Tech  
800 Mickelson Drive  
Rapid City, SD 57703

Dear Mr. Wilson,

Having started the Pharmacy Technician Program at WDTI and in South Dakota in 1993, one of my ultimate goals was to establish a 2 year AAS program for Pharmacy Technicians.

As the instructor of the program for 12 years, I have seen the education and utilization of Pharmacy Technicians grow exponentially. The requirement for highly trained, skilled technicians has grown immensely over the last 20 years. Pharmacies depend on these technicians to fill the greatly increased work loads at all pharmacies, both retail and hospital, as well as other areas of employment.

I highly recommend this new AAS program, as it will be a great asset to West River and to South Dakota. This submission is excellent and well written. In addition to expanding the skills of these technicians, many of these courses may articulate to South Dakota State University if a student decides to pursue a Pharmacy degree.

Again, I greatly support this effort to expand the technician program at WDT, which will ultimately better train technicians whose skills will provide the safest possible pharmaceutical care for all patients.

Thank You.

Sincerely,

Earl R. McKinstry  
RPh, MS
Carrie Gerdeman  
Walgreens Pharmacy  
540 Mountain View Rd.  
Rapid City, SD 57702

February 2013

Mr. Mark Wilson  
Western Dakota Tech  
800 Mickelson Dr  
Rapid City, SD 57703

Dear Mr. Wilson,

I am the pharmacy manager for Walgreens #5643 in Rapid City, SD. I have been with Walgreens for 13 years and have seen many changes in both pharmacy and technicians over this time. I believe the new AAS program would be a great benefit to pharmacies and the students themselves. I feel the Western Dakota Tech students have a great advantage, coming into the work place, with their previous extern experiences and classroom knowledge. The increased volume and demands from insurance companies and additional requirements from the government have transformed many pharmacies. I believe any additional training and experience provided to the students in the AAS program is a benefit to both the pharmacies and the students. I believe the new AAS program will better equip the students with additional knowledge and experience that would benefit them when they get into a work situation. I have had great success hiring graduates from the Western Dakota Tech program. I would strongly back the AAS program and the additional skills it would bring to the students.

Thank You

Sincerely,

Carrie Gerdeman