



NEW PROGRAM PROPOSAL FORM

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Sponsoring Institution(s): Three Rivers Community College

Program Title: Forestry

Degree/Certificate: Associate of Science

Options: Click here to enter text.

Delivery Site(s): All Three Rivers College locations

CIP Classification: 03.0506

\*CIP code can be cross-referenced with programs offered in your region on MDHE's program inventory [highered.mo.gov/ProgramInventory/search.jsp](http://highered.mo.gov/ProgramInventory/search.jsp)

Implementation Date: Fall 2015

Cooperative Partners: Click here to enter text.

\*If this is a collaborative program, form CL must be included with this proposal

AUTHORIZATION:

Dr. Wesley Payne, President

Name/Title of Institutional Officer

*Wesley A. Payne*  
Signature

Date

3/24/15

Dr. Brenda Russell, Dean of Career Education & Workforce Development  
840-9682

573-

Person to Contact for More Information

Telephone

## **SUMMARY OF NEED**

### **A. Student Demand**

The demand for a college education has increased steadily over recent decades. At Three Rivers College the student headcount has increased by 46% over the past five years as compared to an average increase in headcount of 21.6% for all Missouri public two-year schools over the same time period (Missouri Department of Higher Education). Three Rivers College's in-district tuition of \$75 per credit hour is one of the lowest among Missouri colleges. The low cost, quality instruction and ease of course transfer to local four-year colleges, makes the completion of the 42-hour block within the Certificate in General Education a valuable accomplishment for many Three Rivers College students. This program of study will allow students in our service area to obtain an A.S. degree, and then transfer to a four-year institution or go directly to the workforce.

Based on discussions with students and universities, some expressed their concern with transferability from Three Rivers to a four-year institution. This option would allow them to more easily do this.

The enrollment for the first five years of the program for full- and part-time students is estimated as follows:

Year 1	2014-2015	15
Year 2	2015-2016	15
Year 3	2016-2017	15
Year 4	2017-2018	15
Year 5	2018-2019	15

For enrollment projections, see FORM SE attached.

### **B. Market Demand**

Needs analysis was conducted by evaluating the options currently available for our students. Completion of the A.S. degree in Forestry will better prepare the student for transfer to a four-year college university.

Industries require employees with basic education skills, a need that is likely to increase in the future. People with a higher level of education earn more money over their lifetime and have a lower rate of unemployment than those who do not go to college. According to University of Missouri Extension statistics, in 2000 the percentage of Missourians aged 25 or older who had completed some college or an associate degree was 27%. The U.S. Census Bureau, American Community Survey 2006-2008 shows that the median annual incomes for those with a high school diploma was \$21,569, those with some college earned \$27,361 and those with an associate degree earned \$32,602. The Missouri Economic Research and Information Center shows that in 2010 unemployment in the state was 8.3% among those who had some college or an associate degree compared to 11.2% for those who had a high school diploma. This clearly shows the advantage of students completing at least some college level work.

### **C. Societal Needs**

The A.S. degree in Forestry represents an affordable option for residents of the service area preparing to either enter the work force or transfer to a university. Tuition at Three Rivers Community College is relatively inexpensive and provides considerable monetary savings to students wishing to complete the first couple of years of college. In addition, the program provides citizens with the means of pursuing a certificate that leads to better employment possibilities, as well as earning a higher income that provides a better standard of living for their families.

#### D. Methodology for Identification of Market and Societal Need

Market demand and societal information was obtained from a variety of sources. Specific sources include, but are not limited to the following:

- Internet research on labor statistics in 2013:
  - ✓ Bureau for Labor Statistics
  - ✓ Missouri Department of Economic Development
  - ✓ Missouri Department of Higher Education
  - ✓ University of Missouri Extension
  - ✓ Office of Social and Economic Data Analysis
  - ✓ Missouri Economic Research and Information Center

### **DUPLICATION AND COLLABORATION**

There are no certificates similar to this one offered by other community colleges within the Three Rivers College service area. Therefore, there is no duplication of effort with any other community college.

This certificate is designed to be offered at the Poplar Bluff Campus and other Three Rivers locations. The A.S. degree is a step towards completion of a bachelor's degree.



PROGRAM STRUCTURE

A. Total credits required for graduation: 70 credit hours

B. Residency requirements, if any: 15 credit hours must be completed at Three Rivers Community College

C. General education: Total credits: 27 credit hours

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title
ENGL 111	3	College Writing
PHYS 100	3	Survey of Physics
MATH 163	3	College Algebra
MATH 223	3	Probability and Statistics
MATH 170	3	Applied Calculus or Humanities & Fine Arts Elective
CHEM 121	5	General Chemistry
GOVT 121	3	National and State Government
PHYS 150	4	Environmental Geology

D. Major requirements: Total credits: 40

Course Number	Credits	Course Title
GIS 120	3	Intro to GIS
AGRI 120	4	Plant Science
FRST 117	3	Dendrology
FRST 115	3	Forest Utilization
AGRI 110	3	Soil and Soil Fertility
FRST 119	3	Forest Measurements
FRST 225	3	Wildland Fire Management
AGRI 122	3	Natural Resource Management
AGRI 240	3	Agriculture Economics
FRST 215	3	Forest Management Practices
AGRI 172	3	Integrated Pest Management
FRST 217	3	Silviculture and Ecology
GIS 240	3	Applications in GIS

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E. Free elective credits: Humanities & Fine Arts Elective 3  
(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:  
None

G. Any unique features such as interdepartmental cooperation: None



## STUDENT ENROLLMENT PROJECTIONS

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Year	1	2	3	4	5
Full Time	15	30	30	30	30
Part Time	0	0	0	0	0
Total	15	30	30	30	30

Please provide a rationale regarding how student enrollment projections were calculated:

Enrollment data was calculated based on enrollment in the Associate of Arts degree that is being replaced by the Associate of Science degree in Forestry.

Provide a **rationale** for proposing this program, including **evidence of market demand and societal need supported by research**:

The Associate of Science degree in Forestry is a new program. Previously, Three Rivers College offered an Associate of Science in Forestry. As the instructor talked with colleges and universities regarding articulation, the Associate of Arts degree did not contain courses that would transfer to a four-year program without duplication. Based upon these conversations and input from the Forestry Advisory Committee, it was determined that an A.S. in Forestry with changes in course work would better serve students.



Missouri Department of Higher Education

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## PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

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Institution Name      Three Rivers Community College  
Program Name          Forestry  
Date      3/18/2015

(Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below. Quantification of performance goals should be included wherever possible.)

### Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.  
No special preparation required. Student will be accepted at TRC.
- Characteristics of a specific population to be served, if applicable.  
No special preparation will be required. It is the policy of Three Rivers Community College to maintain and promote educational opportunity without regard to race, color, sex, age, religion, national origin, marital status, disability, veteran's status or other non-merit factors. All populations will be served.

### Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.  
Normal faculty requirements that exist for those teaching in other transfer education programs will be required. Three Rivers Community College selects instructors based on a combination of education and work experience in the respective fields of study. Adjunct faculty must meet the same academic and professional requirements for teaching courses as would be required of full-time faculty to teach the same course.
- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.  
It is anticipated that 25% of the certificate credit hours will be assigned to full-time faculty.
- Expectations for professional activities, special student contact, teaching/learning innovation.  
The faculty will be expected to use various technologies such as Smart boards, laboratory data system, internet-based and interactive television (ITV) delivery methods.

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### Enrollment Projections

- Student FTE majoring in program by the end of five years.  
It is anticipated that 75 students will major in the program by the end of five years.
- Percent of full time and part time enrollment by the end of five years.  
Full-time 100%  
Part-time 0%

### Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.  
It is anticipated to have 45 graduates at the end of three years and 75 at the end of five years.
- Special skills specific to the program.  
None
- Proportion of students who will achieve licensing, certification, or registration.  
None
- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.  
It is anticipated that students will pass above the 80th percentile on the Capstone Exam.
- Placement rates in related fields, in other fields, unemployed.  
It is anticipated that 40% of the graduates from the program will complete an A.S. degree, and transfer to a four year institution and find employment.
- Transfer rates, continuous study.  
It is anticipated that 40% of the students will transfer to a four-year institution for further studies. The courses in the A.S. degree are designed to transfer to four year universities.

### Program Accreditation

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide reasons.  
This A.S. degree creates transparency for transferability.

### Alumni and Employer Survey

- Expected satisfaction rates for alumni, including timing and method of surveys.

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No surveys were conducted as these courses are required for degree completion indicating the satisfaction rate would be at or around 100%.

- Expected satisfaction rates for employers, including timing and method of surveys.  
N/A

Program Title: Forestry

Degree Type: Associate of Science

Contact: Joyce Rehkop

**FIRST YEAR**

Fall Semester			Hours
ENGL	111	College Writing <sup>(1)</sup>	3
MATH	163	College Algebra <sup>(1)</sup>	3
GIS	120	Intro to GIS	3
AGRI	120	Plant Science	4
FRST	117	Dendrology	3
<b>TOTAL HOURS</b>			<b>16</b>

Spring Semester			Hours
PHYS	150	Environmental Geology	4
FRST	115	Forest Utilization	3
AGRI	110	Soil and Soil Fertility	3
FRST	119	Forest Measurements	3
MATH	223 <sup>(1)</sup>	Probability and Statistics	3
FRST	225	Wildland Fire Management	3
<b>TOTAL HOURS</b>			<b>19</b>

**SECOND YEAR**

Fall Semester			Hours
PHYS	100	Survey of Physics	3
AGRI	122	Natural Resource Management	3
AGRI	240	Agriculture Economics	3
		Applied Calculus or <i>higher - or -</i> Humanities & Fine Arts Elective	3
FRST	215	Forest Management Practices	3
GIS	240 <sup>(1)</sup>	Applications in GIS	3
<b>TOTAL HOURS</b>			<b>18</b>

Spring Semester			Hours
AGRI	172	Integrated Pest Management	3
CHEM	121 <sup>(1)</sup>	General Chemistry I	5
FRST	217	Silviculture and Ecology	3
GOVT	121	National & State Government	3
		Humanities & Fine Arts Elective <sup>(1)(2)</sup>	3
<b>TOTAL HOURS</b>			<b>17</b>

<sup>(1)</sup>Course has placement requirements.

Recommended Elective(s)
