

**State Technical College of Missouri AAS in Nuclear Technology Reactor Operations Option to  
Thomas Edison State University BSAST in Radiation Protection**

State Technical College of Missouri – AAS in Nuclear Technology Reactor Operations Option	Credits	Thomas Edison State University BSAST in Radiation Protection	Credits
<i>GENERAL EDUCATION</i>		<i>GENERAL EDUCATION</i>	
		<b>Intellectual and Practical Skills (15 Credits)</b>	<b>15</b>
		Written Communications (6 credits)	
(COM 101) English Composition	3	English Composition (3 credits)	
Need to complete 3 credits		English Composition II (3 credits) (Need to complete)	
(COM 111) Oral Communications	3	Oral Communications (3 credits)	
(MAT 123) Calculus I	5	Quantitative Literacy (3 credits)	
(COM 211) Technical Writing	3	Information Literacy (3 credits)	
Need to complete 9 credits		<b>Civic and Global Learning</b>	<b>9</b>
		Ethics Course (3 credits)	
		Diversity Course (3 credits)	
		Civic Engagement (3 credits)	
Need to complete 9 credits		<b>Knowledge of Human Cultures</b>	<b>9</b>
(PSC 101) American Government	3	<b>Understanding of the Physical and Natural World</b>	<b>8</b>
Need to complete 5 credits			
(MNT 107) Basic Nuclear Math and Theory	5	<b>Mathematics</b>	<b>3</b>
(PHY 101/102) College Physics with lab	4	<b>General Education Electives</b>	<b>16</b>
Need to complete Physics II with Lab 4 credits			
(PHY 121) General Chemistry I	5		
(COM 125) Job Search Strategies	1		
Need to complete 2 credits			
<b>Subtotal of General Education Transfers</b>	<b>32</b>		

State Technical College of Missouri AAS in Nuclear Technology Reactor Operations Option	Credits	Thomas Edison State University – Radiation Protection	Credits
		<b>Area of Study:</b> (At least 12 credits of Area of Study must be 300-400 level courses)	<b>45</b>
Need to complete 3 credits		Nuclear Physics for Technology (NUC-303) (3 credits)	
Need to complete 3 credits		Radiation Biology (3 credits)	
Need to complete 6 credits		<b>General Radiation Protections (6 credits)</b> <ul style="list-style-type: none"> <li>• Radiation Protection</li> <li>• Radiological Safety</li> <li>• Health Physics</li> <li>• Radiation Protections and Control</li> </ul>	
Need to complete 6 credits		<b>Radiation Measurement (6 credits)</b> <ul style="list-style-type: none"> <li>• Radiation Detection and Movement</li> <li>• Nuclear Instrumentation and Measurement</li> <li>• Radiation Dosimetry</li> </ul>	
Need to complete 6 credits		<b>Applied Health Physics (6 credits)</b> <ul style="list-style-type: none"> <li>• Radiation Shielding</li> <li>• Environmental Radiation</li> <li>• Radioactive Waste Control</li> <li>• Protection Standards</li> <li>• Safety Controls for Nuclear Operations</li> <li>• Quality Control</li> <li>• ALARA Principles</li> <li>• Applied Health Physics Internship</li> </ul>	
(MNT 270) Thermodynamics, Fluid Flow, & Advances Reactor Theory (MNT 197) Basic Reactor Safety, Theory, and Operations (MNT 274) Reactor Plant Systems (MNT 278) Reactor Plant Operations (MNT 110) Mechanical & Fluid Power Transmission	5 4 3 4 1	<b>Radiation Protection Electives (18 credits)</b> <ul style="list-style-type: none"> <li>• Nuclear Reactor Operations &amp; Safety</li> <li>• Nuclear Fuel Cycle Hazardous Materials</li> <li>• Industrial Safety Instrument Analysis (Chemistry)</li> <li>• Heat Transfer or Thermodynamics Analytic</li> <li>• Organic or Biochemistry</li> <li>• Nuclear Chemistry</li> <li>• Radiation Protection Internship</li> </ul>	
Need to complete 3 credits		<b>Current Trends and Applications (APS-401)</b>	<b>3</b>

(CPP 101) Introduction to Microcomputer Usage	3	<b>Free Electives</b>	<b>15</b>
(MNT 100) Human Performance Fundamentals	2		
(MNT 211) Piping and Instrumentation Drawings	2		
(MNT 290) Internship	4		
(MNT 189) Reactor Plant Components	4		
Need to complete 1 credit			
<b>Total Transferred</b>	<b>64</b>	<b>Total Credits for Degree</b>	<b>120</b>
		<b>*Degree Requirements</b> <b>Technical Writing</b> 3 credits <b>Computer Concepts (CIS-107) or above</b> 3 credits <b>Statistics</b> 3 credits <b>College Algebra</b> 3 credits <b>Higher Level Mathematics Above College Algebra</b> 3 credits <b>Physics I with Lab or Chemistry I with Lab</b> 4 credits <b>Physics II with Lab or Chemistry II with Lab</b> 4 credits <b>General Biology</b> 3 credits	