

**College of Southern Maryland AAS Energy Systems Technology,
Instrumentation and Control/Electrical concentration
to Excelsior College BS Nuclear Energy Technology**
Revision: June 2018

This program plan outlines how students can transfer from the **College of Southern Maryland AAS Energy Systems Technology, Instrumentation and Control/Electrical concentration** program to the **Excelsior College BS Nuclear Energy Technology** program. Upon completion of the **AAS Energy Systems Technology, Instrumentation and Control/Electrical concentration**, the following credits will apply for students enrolling in the **BS Nuclear Energy Technology** program.

College of Southern Maryland Credits	Semester Hours	Excelsior College Requirements	Semester Hours
CHE1050: Introductory Chemistry	3	Chemistry	3
ELT1010: DC Electronics	3	AC/DC Electrical Theory (ELT1010 & 1020 must be taken to meet course requirement)	3
ELT1020: AC Electronics	3		
MTH1011: Mathematics for Technologies I	4	College Algebra or above Core	4
Arts / Humanities	3	Humanities Elective	3
ENG1010: Composition and Rhetoric	3	Written English	3
ENE1035: Discrete Control Systems	3	Concentration / Free Elective	3
ENE1040: Basic Power Plant Principles	3	Nuclear Technology Elective	3
MTH1012: Mathematics for Technologies II	3	Arts and Sciences Elective	3
PHY1010: Fundamentals of Physics I	3	Physics I	3
ENE1030: Motors, Generators, and Industrial Electrical Systems	3	Plant Systems Overview (EGT1030 & ENE2010 must be taken to meet course requirement)	3
ENE2010: Boiler, Reactor, and Turbine Principles	3		
ELT1030: Semiconductors	3	Nuclear Technology Elective	3
ELT2022: Computer Logic and Programmable Logic Controllers	4	Computer applications	4
ENE2020: Thermodynamics and Heat Exchanges	3	Thermodynamics Core	3
ENE2030: Measurement Theory	3	Concentration / Free Elective	3
ENE2070: Process Control and Communications	3	Concentration / Free Elective	3
ELT2017: Operational Amplifiers and Introduction to Communications	4	Nuclear Technology Elective	4
Social / Behavioral Sciences	3	Social Sciences Elective	3
Total Credits Required for Associate	60	Total Credits Accepted from Associate	54

* Excelsior College requires Math courses at the level of College Algebra or above. The Cyber Operations and Information Technology program includes a Statistics requirement. Depending on what the student takes at their home institution, they will need the other requirement for Excelsior College.

Credits Beyond The Associate That Can Be Transferred OR Taken At Excelsior

College of Southern Maryland Credits	Semester Hours	Excelsior College Requirements
ENG1020: Composition and Literature	3	Written English
COM 1010: Basic Prin of Speech Comm	3	Communications
PHL1400: Social Ethics	3	Ethics
Social / Behavioral Sciences / History	6	Social Sciences / History
MTH1200: Calculus I and Analytic Geometry	4	Calculus I (also covers basic differential equations)
MTH1210: Calculus II	4	Calculus II
PHY1020: Fundamentals of Physics II	3	Physics II
PHY1010L: Fundamentals of Physics I Lab	1	Physics Lab
PHY1020L: Fundamentals of Physics II Lab	1	Physics II Lab
CHE1200L: General Chemistry I Lab	1	Chemistry Lab
Technology or Natural Sciences Labs**	2	Labs Core
Total Additional Credits	31	

* Excelsior College requires Math courses at the level of College Algebra or above. The Cyber Operations and Information Technology program includes a Statistics requirement. Depending on what the student takes at their home institution, they will need the other requirement for Excelsior College.

** May be taken from any areas of humanities, social sciences, history, natural sciences or math. It is recommended to work with an academic advisor when choosing the course for transferrability.

Credits To Be Taken At Excelsior College *

Excelsior College Requirements	Semester Hours
INL 102: Information Literacy	1
NUC240: Atomic and Nuclear Physics	4
NUC271: Fundamentals of Reactor Safety	3
NUC323: Material Science	3
NUC210: Health Physics and Radiation Protection	3
NUC211: Radiation Measurement Lab	1
NUC330: Reactor Core Fundamentals	3
NUC250: Introduction to Heat Transfer and Fluid Mechanics	3
Nuclear Technology Elective	15
NUC495: Integrated Technology Assessment (Capstone) <i>NOTE: The Capstone MUST be completed at Excelsior</i>	3
Total Credits	39

* The above credits (with the exception of the **Capstone** course) may also be transferred in or taken at another 4-year regionally accredited institution.

Evaluation Summary	Semester Hours
Credits Accepted from Associate Degree	54
Additional Credits beyond the Associate Degree	31
Credits from Excelsior *	39
Total Credits Required for Bachelor's Degree	124

* Students are required to take a minimum of **12.00 online course credits** from Excelsior to qualify for partner pricing.

NOTE: Excelsior College reviews every student individually and this guide is just a sample scenario. Actual requirements will be dependent on the courses a student transfers to Excelsior.

What are Arts and Sciences?

We offer the following definitions to help you make these determinations. Remember, however, that before you pay to take a course or examination you should always consult with your advisor to make sure that it will help meet your degree requirements.

Humanities

Humanities subjects focus on developing knowledge and skills in critical reading, logical thought, and esthetic appreciation. Here are some subject areas typically classified as Humanities:

Art, Philosophy, Music, Foreign Language, Literature, Theater, Ethics, Speech, Religion, Communication

Social Sciences and History

Social Sciences and History subjects focus on individuals and society and the processes individuals use to order their world. Here are some subject areas typically classified as Social Sciences and History:

Psychology, Economics, Sociology, Geography, Political Science, History, Anthropology

Natural Sciences and Mathematics

Natural Sciences and Mathematics subjects focus on understanding the natural world and problem-solving processes. Here are some subject areas typically classified as Natural Sciences and Mathematics:

Anatomy and Physiology, College Algebra, Microbiology, Calculus, Chemistry, Genetics, Biology, Physics