

# Diesel Technology • ThinkBig Caterpillar Service Technician (DCAT)

## Semester Course Outline • 2023 – 2024

20 Months (4 Semesters, 1 Summer Session) • Revised: 2/8/23

Associate of Applied Science (A.A.S.) Degree • Credits Required for Graduation: 75



### First Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
DCAT 110	CAT Engine Fundamentals	112	4
DCAT 111	Introduction to CAT Service	56	2
DCAT 118	MSHA Certification	15	1
DCAT 150	Internship I	300	5
<ul style="list-style-type: none"> <li>Selected Communications Course (Choose one)                             <ul style="list-style-type: none"> <li>CMST 101 – Fundamentals of Speech * (CSS 100 – Career Search Strategies .5 credit)</li> <li>COMM 101 – Communications and Career Strategies</li> <li>ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit)</li> </ul> </li> </ul>		45	3
<b>Total</b>		528	15

### First Year – Spring Semester

Course Number	Course Title	Clock Hours	Credits
DCAT 112	Fundamentals of Hydraulics	84	3
DCAT 113	Caterpillar Fuel Systems	84	3
DCAT 114	Fundamentals of Electricity	84	3
DCAT 151	Internship II	300	5
<ul style="list-style-type: none"> <li>Selected Social Science Course (Choose one)                             <ul style="list-style-type: none"> <li>ECON 105 – Leadership in the Global Workplace</li> <li>ECON 201 – Principles of Microeconomics I *</li> <li>ECON 202 – Principles of Macroeconomics II *</li> <li>SOC 100 – Introduction to Sociology *</li> </ul> </li> </ul>		45	3
<b>Total</b>		597	17

### First Year – Summer Session

Course Number	Course Title	Clock Hours	Credits
DCAT 115	Fundamentals of Air Conditioning	56	2
DCAT 116	Fundamentals of Transmissions and Torque Converters	84	3
DT 116	Metallurgy	56	2
PSYC 100	Psychology of Human Relations	45	3
<b>Total</b>		241	10

**Semester Course Outline • 2023 – 2024**

**Second Year – Fall Semester**

Course Number	Course Title	Clock Hours	Credits
DCAT 200	Undercarriage/Final Drives	84	3
DCAT 201	CAT Machine Electronics	84	3
DCAT 210	Machine Hydraulic Systems	84	3
DCAT 235	Applied Failure Analysis	15	1
DCAT 250	Internship III	300	5
<ul style="list-style-type: none"> <li>Selected Mathematics Course (Choose one)                      MATH 100 – Applied General Math                      MATH 101 – Intermediate Algebra                      MATH 114 – College Algebra *</li> </ul>		45	3
<b>Total</b>		612	18

**Second Year – Spring Semester**

Course Number	Course Title	Clock Hours	Credits
DCAT 202	Engine Performance	56	2
DCAT 203	Diagnostic Testing	56	2
DCAT 204	Machine Specific Systems	84	3
DCAT 251	Internship IV	300	5
MATH 103	Mathematical Reasoning	45	3
<b>Total</b>		541	15

- Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk (\*) can be transferred directly to the university system and may be substituted for recommended courses on the outline. Students should speak with an advisor before doing so.

Students who select to take transferable communications course CMST 101 or ENGL 101, must also register for CSS 100 – Career Search Strategies for .5 credit. This curriculum is required for all Lake Area Tech graduates and is included in the COMM 101 course but is separate from the university system.