



**Vancouver Community College
EDUCATION COUNCIL**

**MEETING AGENDA - DRAFT
January 8, 2019, 3:30-5:30pm, Room 5025 BWY-A**

Item	Topic	Time	Speaker	Pre-reading materials	Action	Pages
1.	Call to Order	1 min	Elle Ting			
2.	Acknowledgement	1 min	Elle Ting			
3.	Adopt Agenda	1 min	Elle Ting	January 8, 2019 Agenda	Approval	1-2
4.	Approve Past Minutes	1 min	Elle Ting	December 11, 2019 Minutes	Approval	3-10
5.	Enquiries & Correspondence	1 min	Elle Ting		Information	
6.	Business Arising					
	a) Enrolment Plan Update	15 min	Brian Beacham		Information	11-23
	b) ILO Update	15 min	Andy Sellwood		Information	
7.	Committee Reports					
	a) Curriculum Standing Committee	15 min	Todd Rowlatt Rick Cyr		Approval	24-331
	i) Program Update: Heavy Mechanical Technology Certificate					
	b) Policy Standing Committee	5 min	John Demeulemeester	Verbal Report	Information	
	c) Appeals Oversight Committee	5 min	Andrew Candela	Verbal Report	Information	
	d) Program Review and Renewal Committee	5 min	Todd Rowlatt	Verbal Report	Information	
8.	Research Report	5 min	Elle Ting	Verbal Report	Information	
9.	Chair Report	5 min	Elle Ting	Verbal Report	Information	
10.	Student Report	5 min	Ilyes Belhacene, Dharuv Puri	Verbal Report	Information	
11.	Next Meeting: February 12, 2019 3:30-5:30pm room 240 DTN	1 min	Elle Ting		Information	
12.	Adjournment	1 min	Elle Ting			



Vancouver Community College
EDUCATION COUNCIL

MEETING MINUTES - DRAFT
December 11, 2018, 3:30 – 5:30 pm, Room 240 DTN

Item	Topic	Discussion
1.	Call to Order	The meeting was called to order at 3:30 p.m.
2.	Acknowledgement	T. Rowlatt acknowledged that the meeting is being held on the traditional unceded territory of the Skwxwú7mesh Úxwumixw (Squamish), xʷməθkʷəy̓əm (Musqueam) and Tsleil-Waututh peoples.
3.	Adopt Agenda	Motion: Moved by P. Yeung and seconded THAT Education Council adopt the December 11, 2018 agenda as presented. All in favour. Motion carried. K. McNaughton to talk about points 6c) and 6d).
4.	Approve Past Minutes	Motion: Moved by I. Belhacene and seconded THAT Education Council approve the November 13, 2018 minutes as presented. All in favour. Motion carried.
5.	Enquiries & Correspondence	There were none.
6.	Business Arising	
	a) Short Certificate Omnibus	<p>T. Rowlatt presented the omnibus motion to change the name of the credential from “Citation” to “Short Certificate” for three programs: Acute Care for Health Care Assistants (next intake April 24, 2019), Renal Dialysis Technician (next intake as needed, probably April 2019), CAD Technician (next intake April 8, 2019). EDCO has previously approved the change of the credential name.</p> <p>Motion: Moved by T. Rowlatt and seconded THAT Education Council approve the renaming of these three program credentials. All in favour. Motion carried.</p>
	b) Program Suspension: Interior Design	<p>G. Mclvor reported that the Interior Design program is facing several challenges, including instability due to high turnover of Program Coordinators, difficulty evaluating the program in the market, and lack of facilities for experiential learning. Since BC requires a degree for the Interior Designer designation and VCC does not offer a degree program, he recommended suspending the program and planned to request CD funds to complete a needs assessment. One option would be to offer an Interior Decorating program instead of an Interior Design program.</p> <p>J. Demeulemeester asked if the program could be brought back in the form of a degree program. G. Mclvor responded that the needs assessment has to take place first, but a degree program is not being contemplated at the moment since BCIT is already offering a degree program.</p>

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		<p>T. Thomson inquired about the steps for suspension. T. Rowlatt explained that after the Board approves the suspension, the department has a two-year window to report a plan for adjusting the program or decide to discontinue it. If the department and Dean are in agreement to suspend a program, the EDCO can recommend suspension to the Board, and an immediate suspension is possible.</p> <p>P. Yeung asked whether the VCC website will refer students to other institutions that offer this program. G. McIvor responded that he will look into options to communicate alternatives in the FAQ section of the VCC website.</p> <p>T. Rowlatt asked about student numbers. G. McIvor gave an approximation of about 200. Due to the registration model, the number of students can only be approximated since students may be enrolled but might not have taken classes in several years.</p> <p>On January 15, 2019, the end of enrolment will be communicated. G. McIvor stated that courses will still be offered to allow existing students to complete the program.</p> <p>Motion: Moved by I. Belhacene and seconded THAT Education Council recommend suspension of the Interior Design Certificate program to Board of Governors. All in favour. Motion carried.</p>
	c) Budget Update	<p>K. McNaughton reported a healthy budget overall. In some areas domestic numbers are lower than expected, but international students made up for shortfalls. This development needs to be monitored. The budget is only a snapshot. Some changes are based on demographic change, but enrolment is moving in a positive direction.</p> <p>Responding to a question from A. Candela, D. Wells explained that a misallocation of Tuition Replacement Funds was corrected in the School of Arts and Sciences, where less than the due funds had been received from the ministry. EAL Pathways growth was around 48 percent above last year.</p> <p>K. McNaughton thanked all those involved in enrolment planning for their work.</p>

Item	Topic	Discussion
		J. Demeulemeester inquired how a surplus would be used by the College. K. McNaughton explained that the budget was on the conservative side. If there was a surplus, it would be used for things such as needed maintenance and repairs.
	d) Update on the Integrated College Plan	K. McNaughton summarized that all departments are doing the most with a minimum of resources. There were no questions.
7.	Committee Reports	
	a) Curriculum Committee Reports i) Program Updates: Bachelor of Hospitality Management	D. Innes presented the revisions to the Bachelor of Hospitality Management aligning the PLAR policy for this program with VCC policy. Students will be able to receive up to 75 percent of the credits from PLAR, instead of a maximum of six (6) credits. Motion: Moved by P. Yeung and seconded THAT Education Council approve, in the form presented at this meeting, the revisions to the PLAR for the Bachelor of Hospitality Management program. All in favour. Motion carried.
	i) Program Update: Hospitality Management Diploma	D. Innes presented the revisions to the Hospitality Management Diploma admission requirements adding Communications 12 as an equivalent to English 12 for domestic students, which is already departmental practice. There was discussion about simplifying the language around English and Math requirements so that not all equivalent internal courses are listed. D. McMullen explained that listing all individual equivalent courses presents a challenge for website updates. D. McMullen stated that there is a person working on equivalencies internally. N. Mandryk asked how equivalencies are communicated to prospective students. D. McMullen recommended having equivalencies listed in one specific section of the website. T. Thomson asked if Communications English is now called Essentials English. D. McMullen will look into this in January. E. Ting noted that the language proficiency level of a C- in Communications 12 is lower than English 12. T. Rowlatt acknowledged that the courses are not truly equivalent and Communications 12 is usually aligned with English 11. However, it has been departmental practice to accept Communications 12, and Curriculum Committee approved. D. Innes will take the feedback back to the department for discussion. He reiterated that the department has been accepting Communications 12 for years with no detriment to students' success. A. Candela asked if there was a taskforce integrating the RO and Advising to work on how to communicate this change on the website. D. McMullen acknowledged the importance of

Item	Topic	Discussion
		<p>effective external communication. The RO is working on content management with more centralized references, which is a challenge with more than 11,000 courses in total.</p> <p>Motion: Moved by P. Yeung and seconded THAT Education Council approve, in the form presented at this meeting, the revisions to the Hospitality Management Diploma program. All in favour. Motion carried.</p>
	ii) Program Update: AST Harmonized Foundation Certificate	<p>R. Kunka presented, explaining that the goal of the revisions is to strengthen language around absenteeism and participation.</p> <p>Motion: Moved by I. Belhacene and seconded THAT Education Council approve, in the form presented at this meeting, the revisions to the Automotive Service Technician Harmonized Foundation Certificate program. All in favour. Motion carried.</p>
	iii) New Course: ATAP 4011 AST Harmonized Apprentice Level 4	<p>R. Kunka introduced the new course ATAP 4011 AST Harmonized Apprentice Level as the final of the four levels of AST apprenticeship training across the country. The ITA requested a start date of September 2019 for the course, which will replace the currently taught Level 4 Apprenticeship course. A. Candela asked if the nationwide harmonization presented a conflict with BC's future plan to have only electric cars in the province. R. Kunka explained that there was no conflict. The idea is to make the courses the same across the nation (except QC), and new technologies will be incorporated into the course content.</p> <p>Motion: Moved by A. Candela and seconded THAT Education Council approve, in the form presented at this meeting, the new course ATAP 4011 Automotive Service Technician Harmonized Apprentice Level 4. All in favour. Motion carried.</p>
	iv) Course Updates: ENGL 0661 & 0662	<p>D. Wells explained the proposed changes to ENGL 0661 & 0662 from Letter Grades to Satisfactory/Unsatisfactory, while maintaining the Letter Grade approach for the third course, ENGL 0663. According to A. Candela, the goal is to increase the focus on mastery and to reduce students' anxiety over grades. P. Yeung noted some inconsistencies in the lowest passing Letter Grades between courses. T. Rowlatt acknowledged that there is no college-wide grading scale.</p> <p>Motion: Moved by E. Ting and seconded THAT Education Council approve, in the form presented at this meeting, the revisions to ENGL 0661 Fundamentals of English 6A and ENGL 0662 Fundamentals of English 6B. All in favour. Motion carried.</p>

Item	Topic	Discussion
	v) Program Updates: UT Arts Certificate & UT Pathway to Health Sciences	<p>D. Wells introduced the changes as an update to the English admission requirements. There was discussion about listing old course numbers. E. Ting questioned the use of listing old course numbers if the last course was offered before the cut-off date and would no longer be accepted as an admissions prerequisite. D. Wells prefers to list both course numbers.</p> <p>Motion: Moved by I. Belhacene and seconded THAT Education Council approve, in the form presented at this meeting, the revisions to the University Transfer Arts Certificate program and the University Transfer Pathway to Health Sciences Certificate. All in favour. Motion carried.</p>
	vi) New Program: Associate of Arts	<p>D. Wells explained that the Associate of Arts program draws from BCAAT and is similar to the recently approved Associate of Science. Students have four years to complete their choice of courses, as long as they fulfill the minimum number of credits in each required area.</p> <p>J. Demeulemeester inquired about articulation. As per D. Wells, SFU accepts Associate of Arts programs for articulation as long as they are BCAAT-specific. P. Yeung suggested emphasizing in Marketing that completion of the Associate of Arts program makes students better candidates for SFU than just taking a mix of courses.</p> <p>Motion: Moved by K. McNaughton and seconded THAT Education Council approve, in the form presented at this meeting, the curriculum for the Associate of Arts Degree, and recommend approval of the credential to the Board of Governors. All in favour. Motion carried.</p>
	vii) New Program Documents: Trades Instructor Short Certificate	<p>D. Mauger introduced the Trades Instructor Short Certificate as a short version of the PIDP suitable for people in the trades.</p> <p>T. Rowlatt summarized the conversation from Curriculum Committee around the fact that the PIDP incorporates more reflective writing than this program. D. Mauger explained that the idea is to incorporate debriefs that support experiential education and instructors modeling to students.</p> <p>K. Crossett pointed out the different course names in PCG and Course Outline, which T. Rowlatt identified as an issue in CourseLeaf. P. Yeung asked about options to move on to complete a Certificate, which D. Mauger confirmed is possible.</p> <p>Motion: Moved by K. McNaughton and seconded THAT Education Council approve, in the form presented at this meeting, the curriculum for the Trades Instructor Short Certificate, and recommend approval of the credential to the Board of Governors. All in favour. Motion carried.</p>

Item	Topic	Discussion
	viii) Program Renewal Documents: Provincial Instructor Diploma	<p>D. Mauger gave a background of the PIDP, which kept the “Diploma” designation at the last renewal. The number of credits is now increased to a total of 30, with students expected to bring in content expertise from prior credentials or experience. The program has added electives, allowing students choices to customize the program for the first time, with more online and inclusive classrooms. There is demand from current students for electives, and alumni of the program can also be approached to take additional elective courses.</p> <p>K. Crossett noted that the hours for PIDP 3310 do not match the number of credits. T. Rowlett stated that this will be fixed.</p> <p>A. Candela inquired about consultation with Marketing if revisions pass. D. Mauger confirmed that talks with Marketing are on the horizon.</p> <p>Motion: Moved by P. Yeung and seconded THAT Education Council approve, in the form presented at this meeting, the revisions to the Provincial Instructor Diploma Program. All in favour. Motion carried.</p>
	b) Policy Standing Committee i) C.1.6 Registration	<p>J. Demeulemeester presented the proposed revisions to C.1.6 Registration Policy and Procedures, which include the removal of Policy Principle 5 and a change in wording for the Admissions definition. T. Rowlett explained regarding the removal of Policy Principle 5 that guiding students to services is already included in the C.1.1 Grading, Progression and Withdrawal Policy.</p> <p>Motion: Moved by J. Demeulemeester and seconded THAT Education Council recommend the Board of Governors approve the changes to C.1.6 Registration Policy and Procedures. All in favour. Motion carried.</p>
	c) Appeals Oversight Committee	<p>A. Candela reported that the December meeting was canceled. At the previous meeting, the Committee reviewed the Terms of Reference and considered recommending the inclusion of references to procedural fairness and natural justice. Several recommendations regarding Student Conduct Policies will be worked on. The Committee has also collected several template documents and letters. The next step is to make these accessible to the Deans via the website or the J: drive. Tribunal Training days need to be determined.</p>
	d) Program Review and Renewal Committee	<p>E. Ting chaired the meeting on November 27 with J.-E. Zakoor. Tentative adjudication dates for CD funding were set for March. The QAPA visit was debriefed; the feedback was positive. A working group is looking into CD funding guidelines. Feedback surveys were also discussed. There</p>

Item	Topic	Discussion
		is still discussion regarding which programs will pilot the surveys. A membership review is set for the January meeting.
8.	Research Report	E. Ting stated it was quiet except for two amendments to current projects. There have been inquiries for collaboration with BCIT for a baking study—a meeting is planned for December 12, 2018. Mitacs provides a funded internship program for students who perform research at school. Capstones that include research may receive government funding. K. McNaughton will meet Mitacs at the December 14 REB meeting. REB workshops are being considered. E. Ting also attended the CARA West Conference. She explained that the Tri-Council will provide more funds for research but is changing the guidelines regarding ways to access these funds. Discussions need to include equity and diversity in research.
9.	Chair Report	T. Rowlatt reported from the final Board meeting in late November. There were slight revisions to the Curriculum Development and Approval Policy. The Board expressed interest in the Gladue Report Writing program and ILOs.
10.	Student Report	Deferred to the January meeting. S. Sullivan reported that there is a full board this year and high interest from new students.
11.	Elections	T. Rowlatt turned the Chair over to D. McMullen. D. McMullen explained the voting process and thanked everyone who had previously served on the Committees.
	a) Chair	<p>Election of Chair: J. Demeulemeester nominated A. Candela. Nomination accepted. P. Yeung nominated E. Ting. Nomination accepted. Second call for nominations: There were none. Third call for nominations: There were none.</p> <p>Ballots were counted by D. McMullen, C. Deans and D. Rabadzija.</p> <p>With a majority of the votes, E. Ting was elected Chair of Education Council.</p>
	b) Vice-Chair	<p>Election of Vice-Chair: N. Mandryk nominated A. Candela. Nomination declined. E. Ting nominated D. Beerwald. Nomination accepted. I. Belhacene nominated J.-E. Zakoor. Nomination declined. Second call for nominations:</p>

Item	Topic	Discussion
		<p>There were none. Third call for nominations: There were none. By acclamation, Denise Beerwald was announced Vice-Chair of Education Council.</p>
	c) Two Executive Committee Members	<p>Election of Two Executive Committee Members: K. Crossett nominated P. Yeung. Nomination accepted. A. Candela nominated N. Mandryk. Nomination accepted. Second call for nominations: There were none. Third call for nominations: There were none. By acclamation, P. Yeung and N. Mandryk were announced Executive Committee Members of Education Council.</p>
	d) Standing Committee Chairs	
	i) Curriculum Committee	<p>Election of Curriculum Committee Chair: D. Beerwald nominated T. Rowlatt. Nomination accepted. Second call for nominations: There were none. Third call for nominations: There were none. By acclamation, T. Rowlatt was announced Chair of the Curriculum Committee.</p>
	ii) Education Policy Committee	<p>Election of Education Policy Committee Chair: P. Yeung nominated J. Demeulemeester. Nomination accepted. Second call for nominations: There were none. Third call for nominations: There were none. By acclamation, J. Demeulemeester was announced Chair of the Education Policy Committee.</p>
	iii) Program Review & Renewal Committee	<p>Election of Program Review & Renewal Committee Chair: N. Coles nominated T. Rowlatt. Nomination accepted. P. Yeung nominated E. Ting. Nomination declined. Second call for nominations: There were none.</p>

Item	Topic	Discussion
		Third call for nominations: There were none. By acclamation, T. Rowlatt was announced Chair of the Program Review & Renewal Committee.
	iv) Appeals Oversight Committee	Election of Appeals Oversight Committee Chair: T. Thomson nominated A. Candela. Nomination accepted. D. Puri nominated K. Crossett. Nomination declined. Second call for nominations: There were none. Third call for nominations: There were none. By acclamation, A. Candela was announced Chair of the Appeals Oversight Committee. T. Rowlatt expressed gratitude for J.-E. Zakoor's support during his last four years as Chair of EDCO. He thanked N. Degagne and C. Deans for their assistance, initiative, and thoughtfulness and everyone on the Council for their work. J.-E. Zakoor thanked T. Rowlatt on behalf of EDCO for his leadership, sense of humour, and collegial attitude.
12.	Next Meeting	January 8, 2018 3:30-5:30pm 5025 BWY-A
13.	Adjournment	Motion: Moved by J. Demeulemeester and seconded THAT Education Council adjourn the December 11, 2018 meeting. All in favour. Motion carried. The meeting was adjourned at 5:03 p.m.

ATTENDEES:

Todd Rowlatt
Dave McMullen
Paul Yeung
Heidi Parisotto
Ilyes Belhacene

Jo-Ellen Zakoor
Kathryn McNaughton
Natasha Mandryk
David Wells
Dharuv Puri

Denise Beerwald
Andrew Candela
Nona Coles
Karen Crossett

John Demeulemeester
Taryn Thomson
Elle Ting
Robert Kunka

GUESTS:

Gordon McIvor
Doug Mauger

Dennis Innes
Nicole Degagne

Carlie Deans
Claire Sauvé

Sydney Sullivan
Shirley Lew

RECORDING SECRETARY: Darija Rabadzija



VCC 2019-20 Enrolment Plan

Institutional Research has prepared the 2019-20 Budgeted Registration and FTE report, presented in three (3) parts.

Part 1. VCC Enrolment Plan 2019-20 by School

This includes:

- 4 years of Actual FTE, 2014-15, 2015-16, 2016-17, 2017-18
- 2018-19 Forecast FTE
- 2018-19 Budgeted FTE

Part 2. VCC Enrolment Plan by School by Program (ORG Code)

The following detailed reports are included for each of the following Schools:

- a) CCS - Centre for Continuing Studies
- b) CIN - Centre for International Education
- c) SAS - School of Arts and Science
- d) SHS - School of Health Sciences
- e) SHP - School of Hospitality, Food Studies and Applied Business
- f) SIE - School of Instructor Education
- g) CTT – Centre of Trades, Technology & Design

This includes:

- 2018-19 Forecast FTE
- 2018-19 Budgeted FTE

PART 1.

VCC Enrolment Plan 2019-20 by School

Including: Previous 4 year Actual FTE
Current year 2018-19 Budget and Forecast FTE

2019-20 Enrolment Plan FTE by School by ORG - Draft 1

Total Student FTE by School		ACTUAL FTE by School by Year**				2018-19 Forecast and Budget		2019-20 FTE Budget	2019-20 Registrations Budget
		2014-15	2015-16	2016-17	2017-18	Forecast Total FTE 2018-19*	Budget Total FTE 2018-19		
CCS	Centre for Continuing Studies	635.25	655.81	628.54	668.64	665.81	627.98	665.81	9,766
CIN	Center for International Education	342.50	480.16	602.53	792.84	1,147.78	525.80	826.24	9,056
SAS	School of Arts & Sciences	2,887.22	2,094.26	1,941.20	1,954.87	1,872.50	1,690.12	1,810.07	15,145
SHS	School of Health Sciences	844.98	813.28	816.23	757.67	861.80	884.99	945.16	11,006
SHP	School of Hospitality, Food Studies & Applied Business	1,007.83	1,027.47	917.44	781.70	701.70	805.87	1,060.60	11,290
SIE	School of Instructor Education	281.89	267.80	292.88	276.05	200.90	236.50	230.17	1,900
CTT	School of Trades, Technology & Design	951.54	917.70	955.13	927.41	881.00	951.53	1,215.46	10,682
Total		6,951.20	6,256.46	6,153.94	6,159.18	6,331.49	5,722.79	6,753.51	68,845

* as at December 2018

** FTE data provided from the VCC Central Data Warehouse (CDW)

2019-20 Budget for Centre of Continuing Studies is based on the 2018-19 Forecast (Actuals)

****NOTE: effective 2019-20, CIN includes International Cohorts only with inserts attributed to the home school.

Part 2.

VCC Enrolment Plan by School by Program (ORG Code)

NOTE:

1. Budgeted Registrations - projected totals from Finance, representing potential enrolments.
2. Budgeted FTE calculated using projected totals.
3. Projected totals for each School will include International FTE's where sections (CRN's) include inserts. CIN School includes International cohorts only.

Sections included in the FTE calculations have census/freeze dates that fall within the specified date selection based on the data provided by Finance. Not all enrolment totals are included in the budgeting process.

a) Centre for Continuing Studies

The Centre of Continuing Studies does not provide "projected" seats per class to Enrolment Planning. However, the Total FTE for 2019-20 is an estimate based on the actual registrations and FTE in 2018-19.

**** As at December 18,
2018** ***** As per Draft 1**

School Code	ORG Code	ORG Code Description	2018-19 Forecast**		2019-20 Budget***	
			Registrations	FTE	Registrations	FTE
CCS	4550	BC Jobs Funding				
CCS	4301	Automotive Collision Repair	121	0.00	121	0.00
CCS	6022	Fashion Design	238	111.90	238	111.90
CCS	6023	Jewellery	69	2.87	69	2.87
CCS	6024	Gemmology	24	4.35	24	4.35
CCS	6034	Cr Writng-now New Init Art&Des	122	2.13	122	2.13
CCS	6038	Bldg Mgr Residential	140	14.13	140	14.13
CCS	6044	Hospitalty-nowNew Init-Bus&Com				
CCS	6046	Computers - City Centre	605	16.49	605	16.49
CCS	6052	Early Childhood Education	948	67.83	948	67.83
CCS	6060	Management Skills Supervisors	139	5.57	139	5.57
CCS	6064	Office & Admin CertificateProg	1320	40.88	1320	40.88
CCS	6065	Leadership Skills Certificate	411	7.05	411	7.05
CCS	6067	Paralegal Program	1285	132.14	1285	132.14
CCS	6068	Small Business	496	3.24	496	3.24
CCS	6075	Foodsafe	187	2.49	187	2.49
CCS	6076	Allied Health	260	14.06	260	14.06
CCS	6077	Dental Program				
CCS	6080	Registered Nurse				
CCS	6082	Sterile Supply Room Aide	133	56.63	133	56.63
CCS	6087	CPR	12	0.28	12	0.28
CCS	6088	Renal Technician				
CCS	6093	Counselling Skills	735	46.62	735	46.62

CCS	6104	Community Interpreting	18	0.58	18	0.58
CCS	6108	Mandarin & Languages	260	8.79	260	8.79
CCS	6115	Interior Design Technology	109	5.92	109	5.92
CCS	6169	GemmConf 04/05!!DO NOT USE!!				
CCS	6173	Family Literacy				
CCS	6190	Socio-Cultural Competency				
CCS	6192	Tea Sommelier	7	1.24	7	1.24
CCS	6197	Fashion Merchandising	44	2.64	44	2.64
CCS	6198	Makeup Artistry	109	6.00	109	6.00
CCS	6199	Wedding & Event Management	37	1.85	37	1.85
CCS	6200	Wine Sommelier	20	0.40	20	0.40
CCS	6221	Essential Skills Training	86	6.95	86	6.95
CCS	6222	Fashion Non-credit Courses	66	2.93	66	2.93
CCS	6223	Samsung Electronic Certificate				
CCS	6224	Compressed Natural Gas (CNG)	15	0.63	15	0.63
CCS	6225	Technical and Creative Writing	142	3.73	142	3.73
CCS	6226	ECCE - Special Need	2	0.17	2	0.17
CCS	6227	ECCE - Infant Toddler	111	8.55	111	8.55
CCS	6228	ECCE - Extra	107	7.18	107	7.18
CCS	6229	Sport & Recreation Management	22	1.46	22	1.46
CCS	8080	Indigenous Educat Coordinator				
CCS	A093	Demonstration Proj for Older I				
CCS	A113	CS Auto Contract				
CCS	A124	ESA 1112 Business Readiness				
CCS	A125	ESA 1112 Building Management				
CCS	A127	ESA 1112 Access to Transp Trad				
CCS	A128	ESA 1112 Auto Refinishing Prep				
CCS	A131	ESA Consortium CapU				
CCS	A134	WTP Contract				
CCS	A141	ESA 12/13 Access to Transp Tra				
CCS	A142	ESA 12/13 Business Readiness				
CCS	A143	ESA 12/13 Building Mgmt				
CCS	A145	Moving Ahead Success				
CCS	A146	ESA 12/13 Intro to Trades				
CCS	A147	ESA 12/13 Retail & Hosp Custom				
CCS	A151	13/14 WORKSKILL FOR NONPROFIT				
CCS	A161	ESA 13/14 Medical Office Skill				
CCS	A170	ESA 1314 Comm Serv Asstnt Prg				
CCS	A179	LINC	3	0.47	3	0.47
CCS	A187	ESA 14/15 Culinary Skills				
CCS	A190	ESA 14/15 Working Natural Gas				
CCS	A193	Moving Ahead Program				
CCS	A199	LMT - Office Skills Training				
CCS	A200	Indigenous Education				
CCS	A201	ESS-Intro to Culinary Sk 15/16				
CCS	A211	SDEB -Students w/Disab Trades				
CCS	A223	Building Services Worker Train	119	9.85	119	9.85
CCS	A224	Entry Hospitality Career Women	79	4.02	79	4.02

CCS	A225	Office Assistant Training	302	12.39	302	12.39
CCS	A226	Intro to Culinary Skills	228	8.93	228	8.93
CCS	A232	EDUAD_VCC Creative Art Pathway	19	3.80	19	3.80
CCS	A235	Office Assistant Training 1718				
CCS	A244	ECCE Training Project	230	15.18	230	15.18
CCS	A246	Sources Building Service Wkrer	75	4.58	75	4.58
CCS	A248	1819 CACE Pilot Program	7	2.33	7	2.33
CCS	A251	PIRS Child Care Training	94	7.90	94	7.90
CCS	A252	MIB - Medical Office Skills	198	8.68	198	8.68
CCS	A256	1819 DENT ACCESS	12	0.00	12	0.00
CCS	Z041	BC Council Admin Tribunal				
CCS	Z147	ASP-Summer Camps				
CCS	Z163	Communications for Engineering				
CCS	Z164	Communications for Accounting				
CCS	Z191	Skills plus				
CCS	Z251	Community Adult Literacy				
CCS	Z265	SDEB -Students w/Disab Trades				
CCS						
CCS	Z254	Centre for Excellence				
		Total	9,766	665.81	9766	665.81

b) CIN - Centre for International Education

****NOTE: effective 2019-20, CIN includes International Cohorts only with inserts attributed to the home school.

School Code****	ORG Code	ORG Code Description	2018-19 Forecast**		2019-20 Budget***	
			Registrations	FTE	Registrations	FTE
CIN	1901	Visually Impaired				
CIN	1902	Deaf & Hard of Hearing	17	1.24		
CIN	1951	Sign Language Studies				
CIN	1952	ASL & Deaf Studies Part Time				
CIN	2003	ABE Intermediate youth	2	0.24		
CIN	2004	College & Career Access	2	0.24		
CIN	2005	Basic Education				
CIN	2007	CF - Mathematics	2	0.26		
CIN	2008	CF - Science	4	0.53		
CIN	2016	UT Humanities	59	5.90		
CIN	2017	UT Math	31	3.10		
CIN	2018	UT Sciences	26	3.44		
CIN	2022	UT Engineering	28	2.80		
CIN	2023	UT Computing Science&Software	5	0.50		
CIN	2410	TESOL	10	1.14		
CIN	2710	PACE Self Paced				
CIN	2800	English Language Skills				
CIN	3115	UT - CPE	46	4.60		
CIN	3350	ELSA/SETL/LINC	33	5.22		
CIN	3366	ESL Pathways				
CIN	4202	Jewellery Art & Design	47	3.81		
CIN	4203	Drafting	260	13.70		
CIN	4204	Music	36	2.55		
CIN	4206	Music Degree				
CIN	4208	Dancing Diploma	33	1.77		
CIN	4209	Dancing Diploma - Arts Umbrell	174	8.41		
CIN	4303	Automotive Service Technician				
CIN	4305	Technical Training Access			496	16.00
CIN	4306	Auto Collision Refinishing Dip	1149	84.98	1358	96.63
CIN	4316	Automotive Tech Apprenticeship	3	3.00		
CIN	4321	Automotive Refinish Prep - Voc				
CIN	4323	Auto Prep-Apprenticeship	1	1.00		
CIN	4328	Auto Serv Tech Diploma Intl	692	86.43	809	101.63
CIN	4403	Digital Graphics Design				
CIN	4420	Visual Comm Design Certificate				
CIN	4430	Visual Comm Design Diploma	299	15.95		
CIN	4601	Legal Administrative Assistant	9	0.88		
CIN	4602	Medical Office Assistant 15/16				
CIN	4610	Health Unit Coordinator				
CIN	4612	Administrative Assistant	197	11.43		
CIN	4615	Medical Trahscriptionist	16	0.91		

CIN	4801	Canadian Business Mgmt. Diplom	1815	166.27	2469	252.53
CIN	4811	Business Project Mgmt PD Diploma			440	40.00
CIN	5002	Resident Care Attendant ESL				
CIN	5031	Baccalaureate Nursing				
CIN	5076	Occup/Physical Therapist Asst	28	2.28		
CIN	5101	Dental Hygiene				
CIN	5102	Dental Assisting	15	1.31		
CIN	5103	Dental Tech	18	3.24		
CIN	5104	Dental Reception Coordinator				
CIN	5105	Denturist				
CIN	5116	Health Care Assistant				
CIN	5120	CDA Directed Studies DAST 1600	6	0.06		
CIN	5202	Hairstyling	344	38.56		
CIN	5205	Hairstyling ESL				
CIN	5217	Hair Design Non ITA	978	63.47		
CIN	5220	Esth-Skin & Body Treatment				
CIN	5221	Esth-Skin & Body Non-ITA	1057	75.16		
CIN	5301	Baking & Pastry Arts	84	5.08		
CIN	5302	Baking Intn'l 5 month program	146	8.40	266	14.70
CIN	5303	Baking & Pastry Arts ESL	122	7.65		
CIN	5306	Baking & Pastry-Artisan Int'l	467	29.39	576	35.20
CIN	5401	Culinary Arts				
CIN	5405	Professional Cook 2				
CIN	5406	Culinary Arts-Satellite PRG	9	0.97		
CIN	5408	Professional Cook 1	1	0.13		
CIN	5409	Profesional Cook 2 Advanced	5	0.45		
CIN	5501	Asian Culinary Arts	162	12.07		
CIN	5701	Hospitality Management	2998	262.80		
CIN	5702	Hospitality Management App Deg	152	13.80		
CIN	5712	Diploma Culinary Arts Intl	1694	190.53	2642	269.55
CIN	A123	Artisan Baking Specialty				
CIN	A231	BC ORFF Society				
CIN	A255	Korean Cuisine 1819	1	0.13		
CIN	A259	Sept30'18-Mar31'19 AST Lvl 1 ITA	2	2.00		
Totals			13,285	1,147.78	9056	826.24

c) School of Arts & Sciences

School Code	ORG Code	ORG Code Description	2018-19 Forecast**		2019-20 Budget***	
			Registrations	FTE	Registrations	FTE
SAS	1901	Visually Impaired	60	8.00	97	12.57
SAS	1902	Deaf & Hard of Hearing	138	14.60	208	32.34
SAS	1903	Community & Career Education	346	34.90	350	33.89
SAS	1907	In office Admin for Vis Impair	2	0.20		
SAS	1908	Applied Tech for Vis Impaired				
SAS	1909	Community & Career Ed P/T	37	11.60	33	10.39
SAS	1951	Sign Language Studies	295	22.60	432	34.80
SAS	1952	ASL & Deaf Studies Part Time	116	30.90	126	33.60
SAS	2001	Employ & Ed Acc for Women	76	7.00	160	9.58
SAS	2003	ABE Intermediate Youth	147	18.10	165	20.61
SAS	2004	College & Career Access	1087	136.40	1506	189.30
SAS	2005	Basic Education	412	79.60	478	92.37
SAS	2006	CF - Humanities	325	39.40	418	50.88
SAS	2007	CF - Mathematics	630	80.00	768	99.53
SAS	2008	CF - Science	1061	134.10	1380	149.83
SAS	2016	UT Humanities	703	70.30	1089	108.90
SAS	2017	UT Math	363	36.30	497	49.70
SAS	2018	UT Sciences	723	92.20	1075	137.33
SAS	2019	ABE Lab	91	11.40	119	14.95
SAS	2022	UT Engineering	156	15.60	266	29.27
SAS	2023	UT Computing Science&Software	22	2.20	109	10.90
SAS	2410	TESOL	6	0.70		
SAS	2700	Professional & Career English				
SAS	2710	PACE Self Paced				
SAS	2800	English Language Skills				
SAS	2900	College Preparatory English				
SAS	3100	ESL Outreach				
SAS	3108	Outreach - Homefront Learning				
SAS	3109	ESL Outreach -Learning Centres				
SAS	3115	UT - CPE	124	12.40		
SAS	3350	ELSA/SETL/LINC	2186	449.20		
SAS	3366	ESL Pathways	3650	497.20	4414	594.37
SAS	4204	Music	612	37.90	1107	66.60
SAS	4206	Music Degree	215	18.00	286	24.23
SAS	4208	Dancing Diploma	29	1.40	62	4.13
SAS	4209	Dancing Diploma - Arts Umbrell	143	7.60		
SAS	5031	Baccalaureate Nursing				
SAS	6221	Essential Skills Training	5	0.40		
SAS	A077	BC ORFF Society				
SAS	A133	Vancouver Coastal Health				
SAS	A136	Jericho Hill Legacy				
SAS	A169	1314 VCH ESSENTIAL STUDY SKILLS				
SAS	A191	Gateway to Post Secondary-GPS				

SAS	A195	BC ORFF 1516				
SAS	A202	BCNU - BC Nurses Union BSN				
SAS	A212	BC ORFF 1617				
SAS	A231	BC ORFF Society				
SAS	A242	1819 BC ORFF Society	17	2.30		
SAS	Z201	ESL Transition Project 12/13				
Totals			13,777	1,872.50	15145	1,810.07

d) School of Health Sciences

School Code	ORG Code	ORG Code Description	2018-19 Forecast**		2019-20 Budget***	
			Registrations	FTE	Registrations	FTE
SHS	4602	Medical Office Assistant 15/16				
SHS	4610	Health Unit Coordinator	322	22.40	339	26.16
SHS	4611	HCM Part-Time Programs				
SHS	5002	Resident Care Attendant ESL	345	37.60	396	38.11
SHS	5004	Practical Nursing	2291	143.10	2293	161.98
SHS	5005	Pharmacy Technician	340	21.90	399	24.94
SHS	5010	Autopsy Technician				
SHS	5017	Access to Practical Nursing	261	19.70	564	28.17
SHS	5018	Practical Nursing Refresher				
SHS	5019	Success in Practical Nursing	8	0.40		
SHS	5031	Baccalaureate Nursing	1312	123.50	1493	125.69
SHS	5076	Occup/Physical Therapist Asst	498	43.60	514	50.93
SHS	5078	LPN Bridging to BSN	98	19.70	96	25.21
SHS	5101	Dental Hygiene	352	43.30	378	41.33
SHS	5102	Dental Assisting	1065	98.40	1611	129.41
SHS	5103	Dental Tech	136	19.30	201	21.00
SHS	5104	Dental Reception Coordinator	226	42.80	275	39.87
SHS	5105	Denturist				
SHS	5106	Dental Radiography	19	2.10	16	0.98
SHS	5110	Dental Hygiene Access for CDAs				
SHS	5115	Distance Dental Assisting	243	13.00	331	19.39
SHS	5116	Health Care Assistant	1055	125.60	1260	136.88
SHS	5117	Medical Lab Assistant	376	47.00	432	48.00
SHS	5118	CCAH Part Time Programs	94	7.90	128	10.67
SHS	5119	Residential Care - Aboriginal				
SHS	5120	CDA Directed Studies DAST 1600	56	0.50	48	0.44
SHS	5123	Pre-Health Sciences			232	16.00
SHS	A133	Vancouver Coastal Health				
SHS	A139	FHA - Acute Care Skills				
SHS	A169	1314 VCH ESSENTIAL STUDY SKILLS				
SHS	A202	BCNU - BC Nurses Union BSN				
SHS	A239	Health Care Asst Aboriginal	109	12.70		
SHS	A240	Health Care Asst LPN PERIOP	129	14.00		
SHS	A256	1819 DENT ACCESS	24	3.30		
SHS	Z204	Practical Nurs-Seabird Aborig				
Totals			9,359	861.80	11006	945.16

e) SHP - School of Hospitality, Food Studies and Applied Business

School Code	ORG Code	ORG Code Description	2018-19 Forecast**		2019-20 Budget***	
			Registrations	FTE	Registrations	FTE
SHP	4601	Legal Administrative Assistant	253	27.60	270	26.25
SHP	4602	Medical Office Assistant 15/16	468	29.30	572	33.00
SHP	4604	BC Campus - Office & Legal Adm	3	0.10		
SHP	4607	Executive Assistant	43	4.30	48	4.80
SHP	4611	HCM Part-Time Programs				
SHP	4612	Administrative Assistant	1034	64.40	1478	87.03
SHP	4615	Medical Transcriptionist 15/16	210	13.20	254	14.94
SHP	5301	Baking & Pastry Arts	1111	68.10	1338	76.38
SHP	5302	Baking Intn'l 5 month program				
SHP	5303	Baking & Pastry Arts ESL	77	5.10	284	17.40
SHP	5305	Baking Apprenticeship	33	33.00	36	36.00
SHP	5401	Culinary Arts				
SHP	5403	Professional Cook 1				
SHP	5404	Culinary Arts ESL	216	12.20	256	13.40
SHP	5405	Professional Cook 2				
SHP	5406	Culinary Arts - Satellite Prg	275	33.60	452	50.00
SHP	5408	Professional Cook 1	957	119.80	1108	125.03
SHP	5409	Professional Cook 2 Advanced	654	52.90	660	48.75
SHP	5501	Asian Culinary Arts	143	12.00	322	23.92
SHP	5701	Hospitality Management	690	65.70	3604	313.70
SHP	5702	Hospitality Management App Deg	238	23.80	464	46.00
SHP	5708	Culinary Arts Apprenticeship	136	136.00	144	144.00
SHP	5709	Aboriginal Culinary Arts				
SHP	A255	Korean Cuisine	5	0.60		
SHP	L403	LMA Professional Cook 1				
SHP	L405	LMA Professional Cook 2				
SHP	L530	Baking & Pastry LMA inserts				
SHP	Z153	BC Campus Tuition non VCC	8	0.00		
Totals			6,554	701.70	11290	1,060.60

f) School of Instructor Education

School Code	ORG Code	ORG Code Description	2018-19 Forecast**		2019-20 Budget***	
			Registrations	FTE	Registrations	FTE
SIE	1500	Provincial Instructor Diploma	1450	175.55	1828	221.17
SIE	1510	Diploma in Adult Education				
SIE	1535	Online/eLearning Instruction	56	7.08	72	9.00
SIE	1537	CTP & CTDP Exams Online Prep				
SIE	A216	BCMEA 1617				
SIE	A220	BC Ferries 1617				
SIE	A221	BC Hydro Media Enh Learn. 1617				
SIE	A227	BC Ferries Sep16-Mar17 SIE				
SIE	A229	BC Hyrdo				
SIE	A230	TRICORP exp Mar 10 2017				
SIE	A233	BC Hydro Apr'17-Jun 30'17				
SIE	A234	BCMEA Apr'17 - Mar 31'18				
SIE	A236	BC Hydro Sept 1 -Dec 31 2017				
SIE	A237	Squamish Nation	33	3.51		
SIE	A238	BC Ferries SIE Sep1'17-Mar31'18				
SIE	A241	BC Hydro - SIE Jan-Apr'18	34	4.25		
SIE	A243	1819 BCMEA	33	4.13		
SIE	A253	1819 BC Ferries PIDP	36	4.50		
SIE	A254	BC Hyrdo NOV 1819	15	1.88		
Totals			1,657	200.90	1900	230.17

g) CTT – School of Trades, Technology & Design

School Code	ORG Code	ORG Code Description	2018-19 Forecast**		2019-20 Budget***	
			Registrations	FTE	Registrations	FTE
CTT	4202	Jewellery Art & Design	254	24.60	390	32.32
CTT	4203	Drafting	879	47.70	1325	66.49
CTT	4301	Automotive Collision Repair	919	49.30	1030	56.28
CTT	4303	Automotive Service Technician	552	49.70	840	70.00
CTT	4304	Heavy Duty/Commercial Transport	2633	73.10	2810	76.00
CTT	4314	Auto Collision Apprenticeship	65	65.00	84	84.00
CTT	4315	Diesel Apprenticeship	201	201.00	238	238.00
CTT	4316	Automotive Tech Apprenticeship	187	187.00	182	182.00
CTT	4321	Automotive Refinish Prep - Voc	141	8.40	210	11.37
CTT	4322	Auto Paint - Apprenticeship	10	10.00	14	14.00
CTT	4323	Auto Prep - Apprenticeship	16	16.00	14	14.00
CTT	4324	Auto Glass - Apprenticeship	8	8.00	14	14.00
CTT	4325	Auto Refinishing Highschool	120	7.40	212	11.58
CTT	4326	AST Apprenticeship - Online	26	26.00	16	16.00
CTT	4330	HD/Commercial SIP funded				
CTT	4345	Auto Tech Online				
CTT	4403	Digital Graphics Design				
CTT	4420	Visual Comm Design Certificate				
CTT	4430	Visual Comm Design Diploma	604	36.60	1030	59.27
CTT	4702	Computer Systems Technology Diploma			300	17.14
CTT	5202	Hairstyling	118	17.10	449	114.02
CTT	5204	Esthetics				
CTT	5215	Hair Design - Satellite Prgms	82	12.90	64	16.40
CTT	5217	Hair Design Non ITA	230	18.60	73	19.05
CTT	5218	Esthetics Non ITA				
CTT	5219	Hair Apprenticeship	2	2.00	5	5.00
CTT	5220	Esth-Skin & Body Treatment				
CTT	5221	Esth-Skin & Body Non-ITA	161	12.60	1382	98.54
CTT	A088	Ray Cam Program Partnership				
CTT	A102	ESAP NASKAR				
CTT	A158	Hair - LMA Funding				
CTT	A165	1314 SDEB - ABORIGINAL				
CTT	A177	Aboriginal Auto Detailing Cont				
CTT	A181	RAYCAM/NASKARZ 14/15				
CTT	A196	RAYCAM/NASKARZ 15/16				
CTT	A207	RAYCAM Community Centre 1617				
CTT	A222	ITA Auto Glass Pilot Prgm 1617				
CTT	A259	Sept30'18-Mar31'19 AST Lvl 1 ITA	8	8.00		
CTT	L202	Hair Design LMA inserts				
CTT	L301	Auto Coll Repair LMA inserts				
CTT	L303	Auto Serv Tech LMA inserts				
Totals			7,216	881.00	10,682	1,215.46



DECISION NOTE

PREPARED FOR: Education Council

DATE: January 8, 2019

ISSUE: Revisions to the Heavy Mechanical Technology Diploma (International Cohort) program

BACKGROUND:

The HMT program is running its first international cohort in May 2019. The curriculum was previously approved by Education Council. When the curriculum was first prepared, the department did not know what space or training aids would be available; as these are known, the department is proposing a number of changes including time allocations, grading and evaluation and course order. They have also added three weeks of shop simulations to better prepare international student integration into employment after graduation.

DISCUSSION:

Rick Cyr, Department Head of the program, presented this proposal. Mr. Cyr described the competency-based approach in their program. The major changes requested by the Committee are:

- Moving attendance out of the course outline assessment section into the PCG under Evaluation of Student Learning. The department has a well-documented attendance guideline in their department handbook that will be noted in the PCG.
- Topics were adjusted to match standard language.
- Adjustment to the admission requirements to explicitly mention English 10 with a C, not just the IELTS/TOEFL scores as many international students are in the Canadian high school system.
- Adding "(International Cohort)" to the program title to match standard VCC language.

The department requested the ability to use longer Course Titles. The current maximum is 75 characters, and there were 8-10 courses with a longer title. Curriculum Committee did not agree to the request and the department head and committee chair have finalized the shortened course titles.

It was also clear that additional conversations would be needed with International Education and likely the Registrar's Office to ensure strategies for managing student failures and re-insertion will work in the international student context. Significant discussions have already taken place.

RECOMMENDATION:

THAT Education Council approve, in the form presented at this meeting, the revisions to the Heavy Mechanical Technology Diploma (International Cohort) program.

PREPARED BY: Todd Rowlatt, Chair, Curriculum Committee

DATE: December 19, 2018

Program Change Request

New Program Proposal

Date Submitted: 11/17/18 11:44 am

Viewing: **Heavy Mechanical Technology Diploma
(International Cohort)**

Last edit: 12/20/18 2:54 pm

Changes proposed by: fghesen

In Workflow

1. **4304 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Ministry Review
6. Board of Directors

Program Name:

Heavy Mechanical Technology Diploma (International Cohort)

Credential Level: Diploma

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Duty/Commercial Transport(4304)

Contact(s)

Approval Path

1. 12/06/18 11:42 am
Richard Cyr (rcyr):
Approved for 4304
Leader
2. 12/06/18 1:22 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 12/20/18 3:03 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

Name	E-mail	Phone/Ext.
Rick Cyr	rcyr@vcc.ca	7102

Program Content Guide

Goal

This program is designed for people who wish to obtain employment in the Mechanical Trades Industry as Heavy Duty Equipment Technicians, Truck and Transport Mechanics, Diesel Engine Mechanics, or Transport Trailer Technicians.

Heavy Duty Equipment Technicians typically work on industrial and construction vehicles, such as mining trucks and bulldozers, and on heavy equipment used in construction, forestry, materials handling, landscaping, and land clearing in a safe and environmentally sound manner. Truck and Transport Mechanics diagnose, repair, and service highway buses and trucks. They work for commercial transport vehicle dealers, garages, and service stations. Diesel Engine Mechanics install, repair, and maintain all internal combustion diesel engines and components used in transport, construction, and marine industries. Transport Trailer Technicians maintain, rebuild, overhaul, recondition, complete diagnostic troubleshooting for, and repair commercial truck trailers. Upon successful completion of this program, students may be eligible to write Industry Training Authority standardized examinations.

Through practical experience, successful students will be able to integrate the theoretical knowledge gained in the classroom with practical experience of the workplace.

Admission Requirements

English 10 with a C or Academic IELTS 5.0 (no band less than 4.5) or TOEFL iBT 60 or equivalent

Students must possess a high school graduation certificate or equivalent

Apprentice and Workplace Math 10 or equivalent

Prior Learning Assessment & Recognition (PLAR)

PLAR is not available in this program.

Program Duration & Maximum Time for Completion

This full-time program is two years in duration delivered over four terms, and must be completed within 5 years.

Program Learning Outcomes

Upon completion of this program, graduates will be able to:

Apply the skills and knowledge necessary to perform at first-year apprentice level of heavy duty equipment technician, truck and transport mechanics, diesel engine mechanic and transport trailer technician to provincial standards;

Evaluate completed repairs for consistency, accuracy, and quality according to industry specifications and standards;

Adhere to industry health and safety standards in the repair and reconditioning of heavy duty and commercial transport equipment;

Practice professional etiquette and personal hygiene;

Work effectively as a team member.

Communicate effectively and work in a culturally diverse environment.

Instructional Strategies, Design, and Delivery Mode

The Heavy Mechanical Technology diploma provides a wide range of opportunities for student learning in classroom, shop, and workplace settings. In addition to hands-on practical experience at VCC's own state-of-the-art heavy mechanical and commercial transport facility, instructional activities such as lectures, demonstrations, group work, peer assessment, and project-based learning strategies are used throughout the program. Students progress through courses in four terms, each course requires successful completion for overall completion of the program.

Evaluation of Student Learning

Evaluation involves a combination of assessments: practical assignments, projects, theory exam, and/or practical exam.

Students must complete all courses with a minimum grade of 70%, consistent with ITA standards.

Students will be given the program's Attendance procedures on the first day of the program. Each week is a new course, and attendance has a major role in student success.

Recommended Characteristics of Students

Personal hygiene, grooming and appearance acceptable to a service industry;
 Good hand dexterity for operating equipment and machines;
 Command of oral and written English;
 Ability to understand and follow oral and written instruction;
 Good general health and respiratory condition;
 Physical strength and stamina compatible with the handling of heavy parts and equipment as required by the program;
 Ability to tolerate noise and vibration;
 Mechanical aptitude and interest;
 Good hand-eye coordination;
 Good eyesight and colour vision;
 Good line, form, and depth perception.

Courses

Course List

Code	Title	Credits
<u>HMTD 1101</u>	Workplace Safety & Preparatory Skills	1
<u>HMTD 1102</u>	Oxy-Acetylene Welding & Cutting	1
<u>HMTD 1103</u>	Electric Welding & Cutting	1
<u>HMTD 1104</u>	HMT Tools & Equipment 1	1
<u>HMTD 1105</u>	HMT Tools & Equipment 2	1
<u>HMTD 1106</u>	Fittings & Fasteners	1
<u>HMTD 1107</u>	Truck & Machine Operation 1	1
<u>HMTD 1108</u>	Truck & Machine Operation 2	1
<u>HMTD 1109</u>	Lubricants & Bearings	1
<u>HMTD 1110</u>	Math, Physics & Worksafe Requirements for HMT	1
<u>HMTD 1111</u>	Final Drives & Undercarriage 1	1
<u>HMTD 1112</u>	Final Drives & Undercarriage 2	1
<u>HMTD 1113</u>	Frames & Suspension	1
<u>HMTD 1114</u>	Tires, Wheels & Hubs	1
<u>HMTD 1115</u>	Workplace Skills 1	1
<u>HMTD 1201</u>	Hydraulic Systems 1	1
<u>HMTD 1202</u>	Hydraulic Systems 2	1
<u>HMTD 1203</u>	Hydraulic Systems 3	1
<u>HMTD 1204</u>	Hydraulic Systems 4	1
<u>HMTD 1205</u>	Electrical Systems 1	1
<u>HMTD 1206</u>	Electrical Systems 2	1
<u>HMTD 1207</u>	Electrical Systems 3	1

Code	Title	Credits
<u>HMTD 1208</u>	Electrical Systems 4	1
<u>HMTD 1209</u>	Electrical Systems 5	1
<u>HMTD 1210</u>	Electrical Systems 6	1
<u>HMTD 1211</u>	Electrical Systems 7	1
<u>HMTD 1212</u>	Shop Simulation 1	1
<u>HMTD 1213</u>	Steering Systems 1	1
<u>HMTD 1214</u>	Steering Systems 2	1
<u>HMTD 1215</u>	Workplace Skills 2	1
<u>HMTD 2101</u>	Cab & Protective Structures	1
<u>HMTD 2102</u>	Hydraulic Brake Systems 1	1
<u>HMTD 2103</u>	Hydraulic Brake Systems 2	1
<u>HMTD 2104</u>	Hydraulic Brake Systems 3	1
<u>HMTD 2105</u>	Air Brake Systems 1	1
<u>HMTD 2106</u>	Air Brake Systems 2	1
<u>HMTD 2107</u>	Air Brake Systems 3	1
<u>HMTD 2108</u>	Cab Heating, Ventilation & Air Conditioning Systems	1
<u>HMTD 2109</u>	Refrigeration Unit Heating, Ventilation & Air Conditioning Systems	1
<u>HMTD 2110</u>	Trailers 1	1
<u>HMTD 2111</u>	Trailers 2	1
<u>HMTD 2112</u>	Powertrain 1	1
<u>HMTD 2113</u>	Powertrain 2	1
<u>HMTD 2114</u>	Powertrain 3	1
<u>HMTD 2115</u>	Powertrain 4	1
<u>HMTD 2201</u>	Powertrain 5	1
<u>HMTD 2202</u>	Powertrain 6	1
<u>HMTD 2203</u>	Powertrain 7	1
<u>HMTD 2204</u>	Powertrain 8	1
<u>HMTD 2205</u>	Electrical Systems 8	1
<u>HMTD 2206</u>	Electrical Systems 9	1
<u>HMTD 2207</u>	Electrical Systems 10	1
<u>HMTD 2208</u>	Electronic Systems 1	1
<u>HMTD 2209</u>	Electronic Systems 2	1
<u>HMTD 2210</u>	Electronic Systems 3	1
<u>HMTD 2211</u>	Gasoline Fueled (Automotive) Engine Management Systems 1	1
<u>HMTD 2212</u>	Gasoline Fueled (Automotive) Engine Management Systems 2	1
<u>HMTD 2213</u>	Shop Simulation 2	1
<u>HMTD 2214</u>	Shop Simulation 3	1
<u>HMTD 2215</u>	Employment Skills	1
Total Credits		60

Transcript of Achievement

The evaluation of learning outcomes for each student is prepared by the instructor and reported to the Student Records Department at the completion of semesters.

The transcript typically shows a letter grade for each course. The grade point equivalent for a course is obtained from letter grades as follows:

Transcript of Achievement

Grade	Percentage	Description	Grade Point Equivalency
	96-100		4.33
	91-95		4.00
	86-90		3.67
	81-85		3.33
	76-80		3.00
	70-75	Minimum Pass	2.67
	0-69	Failing Grade - unable to proceed to next Term	0.00
I		Incomplete	N/A
IP		Course In Progress	N/A
W		Withdrawal	N/A
Course Standings			
R		Audit. No Credit	N/A
EX		Exempt. Credit granted	N/A
TC		Transfer Credit	N/A

Grade Point Average (GPA)

The course grade points shall be calculated as the product of the course credit value and the grade value.

The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.

Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.

Rationale and Consultations

Provide a rationale for this proposal.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Are there any expected costs to this proposal.

Consultations

Consultated Area	Consultation Comments
Registrar's Office	<p>Below is the summary of the RO consultation “ Please add this to your consultation section in courseleaf”.</p> <p>I met with Les Apouchtine and Denis Seremba- December 3rd, 2018 They are fine with the changes and they will review them in courseleaf. The only recommendation is to reconsider the name for some of the courses (ex: 1205,2202) so the courses title show completely in the transcripts. They will review the changes in courseleaf, and will provide further feedback if needed.</p> <p>Key highlights</p> <ul style="list-style-type: none"> • No change to credit • No change to course number • Change to course name. • RO to review courseleaf for the changes made • Changes to CLO- RO to review
Centre for Teaching, Learning, and Research (CTLR)	Sent out to Centre for Teaching, Learning and Research and received no comment.
Faculty/Department	The Heavy Mechanical Trades department is in support of this international program and the changes that were made. They are also is support of the program's courses and the changes that were made. Faculty are in support of the new course titles and updated course order. The HMT department request that the course titles be allowed to exceed 75 character where required as the course titles are as such for pedagogical reasons in relation to a competency based learning method.

Additional Information

Provide any additional information if necessary.

Supporting documentation:

Course Change Request

Date Submitted: 11/14/18 11:02 pm

Viewing: **HMTD 1101 : Workplace Safety & Prep Skills**

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 1:20 pm

Changes proposed by: rcyr

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Workplace Safety & Preparatory Skills

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:12 pm
Nicole Degagne (ndegagne):
Rollback to Initiator
2. 11/15/18 9:15 am
Richard Cyr (rcyr):
Approved for 4305 Leader
3. 11/15/18 9:29 am
Brett Griffiths (bgriffiths):
Approved for CTT Dean
4. 12/04/18 1:52 pm
Nicole Degagne (ndegagne):
Rollback to 4305 Leader for Curriculum Committee Chair
5. 12/05/18 1:35 pm
Richard Cyr (rcyr):
Approved for 4305 Leader
6. 12/05/18 1:59 pm
Brett Griffiths

33
(bgriffiths):

Approved for CTT
Dean

7. 12/20/18 2:59 pm

Todd Rowlatt

(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Workplace Safety & Prep Skills

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1101

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to the **concept** ~~concepts~~ of safe work practices, occupational health **and** ~~&~~ safety, environmental practices, math, **science, and** ~~science and~~ electronic media.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

	Upon successful completion of this course, students will be able to:
CLO #1	Apply personal safety measures. Use safe work practices
CLO #2	Identify and use shop emergency equipment. Apply occupational health and safety practices
CLO #3	Prevent , identify, and extinguish various classes of fires. Use environmental practices
CLO #4	Identify Worksafe BC policies and procedures. Use basic math and science skills
CLO #5	Describe the purpose of the Workplace Hazardous Materials Information System (WHMIS) regulations. Use electronic media
CLO #6	Explain the contents of the Material Safety Data Sheets (MSDS).
CLO #7	Explain the contents of WHMIS labels.
CLO #8	Apply WHMIS regulations.
CLO #9	Discuss the application of math and science in the heavy mechanical trades.
CLO #10	Use electronic imaging equipment.
CLO #11	Use computers to create documents and conduct research.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System:

Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	70 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	30 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, and use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

17.5

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

7.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

Course Topics:

1. **Personal safety measures.**
2. **Shop emergency equipment.**
3. **Classes of fires.**
4. **Worksafe BC policies and procedures.**
5. **Workplace Hazardous Materials Information System (WHMIS) regulations.**
6. **Material Safety Data Sheets (MSDS).**
7. **WHMIS labels.**
8. **Math and science in the heavy mechanical trades.**
9. ~~Safe Work Practices~~
2. ~~Occupational Health and Safety~~
3. ~~Environmental Practices~~
4. ~~Basic Math and Science~~
5. ~~Electronic imaging equipment.~~
10. ~~Media~~ **Creating documents and conducting research.**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:12 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:52 pm): Rollback: for further review

Key: 7934

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:32 am

Viewing: **HMTD 1102 : Oxy-Acetylene Weld & Cut**

~~Oxy-Acetylene Welding/Cutting~~

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 1:21 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Oxy-Acetylene Welding **&** ~~and~~ Cutting

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:16 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:29 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:52 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:35 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 1:59 pm
Brett Griffiths

(bgriffiths):³⁹

Approved for CTT

Dean

7. 12/20/18 2:59 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Oxy-Acetylene Weld & Cut** ~~Oxy-Acetylene Welding/Cutting~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1102

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to ~~welding regulations,~~ metals, oxy-acetylene **components and components,** equipment, cutting, **welding, brazing, and soldering.** ~~welding and brazing.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):**PLAR (Prior Learning Assessment & Recognition)**

No

Course Learning
Outcomes (CLO):

	Upon successful completion of this course, students will be able to:
CLO #1	Identify metals. Identify regulations with respect to welding
CLO #2	Describe different welding procedures. Identify metals
CLO #3	Cut, weld, and braze using oxy-acetylene. Identify oxy-acetylene components
CLO #4	Solder tubing and sheet metal. Use oxy-acetylene equipment
CLO #5	Cut mild steel with oxy-acetylene equipment
CLO #6	Weld mild steel with oxy-acetylene equipment
CLO #7	Braze lap joints with oxy-acetylene equipment

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	20	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Metals.**
2. Welding **procedures.**
3. ~~regulations~~
- ~~2-~~ **Cut, weld, and braze using oxy-acetylene.**
4. **Solder tubing and sheet metal. Metals**
- ~~3-Oxy-acetylene components~~
- ~~4-Oxy-acetylene equipment~~
- ~~5-Mild steel cutting with oxy-acetylene equipment~~
- ~~6-Mild steel welding with oxy-acetylene equipment~~
- ~~7-Lap joint brazing with oxy-acetylene equipment~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Pro

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:52 pm): Rollback: for further review

Key: 7936

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:37 am

Viewing: **HMTD 1103 : Electric Welding & ~~Cutting~~**

Cutting

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 1:21 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electric Welding & ~~and~~-Cutting

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:17 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:29 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:52 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:34 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 1:59 pm
Brett Griffiths

44
(bgriffiths):

Approved for CTT

Dean

7. 12/20/18 2:59 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Electric Welding & Cutting

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1103

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to ~~tubing and sheet metal soldering~~, the Shielded Metal Arc Welding (SMAW) process, SMAW **equipment**, ~~equipment~~, mild steel ~~electrodes for SMAW, mild steel~~ welding with SMAW, mild steel welding wire feed processes, and **air arc** ~~air arc~~ gouging.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Describe shielded metal arc welding. Describe the SMAW process
CLO #2	Perform shielded metal arc welding. Identify SMAW equipment
CLO #3	Describe wire feed process. Identify mild steel electrodes for SMAW
CLO #4	Weld using wire feed process. Weld mild steel with shielded metal arc
CLO #5	Weld mild steel using wire feed processes
CLO #6	Describe air-arc gouging

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Shielded metal arc welding.**
2. ~~The SMAW process~~
2. ~~SMAW equipment~~
3. ~~Mild steel electrodes for SMAW~~
4. **Perform Mild steel welding with** shielded metal **arc welding.**
3. ~~arc~~
5. **Wire feed process.**
4. **Welding** ~~Mild steel welding~~ using wire feed **process. processes**
6. ~~Air arc gouging~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:52 pm): Rollback: for further review

Key: 7938

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:37 am

Viewing: **HMTD 1104 : HMT Tools & Equipment**

Equip-1

Last approved: 07/04/18 4:59 am

Last edit: 12/19/18 11:04 am

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

HMT Tools & **Equipment** ~~Equip-1~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:12 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:19 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:29 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:53 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:34 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

⁴⁹
(bgriffiths):

Approved for CTT

Dean

7. 12/20/18 2:59 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: HMT Tools & **Equipment Equip-1**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1104

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to the use of protective equipment, lock out **procedures**, ~~procedures~~ and ~~the use and maintenance of~~ hand tools.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Use proper personal protective equipment associated with tools and shop equipment. equipment
CLO #2	Apply lock-out procedures to shop equipment. equipment
CLO #3	Select, use, use and maintain hand tools. tools

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment (according to rubric)
Participation	25	Observable active participation and team work (clear expectations as to how this is evaluated – ?rubric)

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Proper personal protective equipment associated with tools and shop equipment.**
2. **Lock-out procedures to shop equipment.**
3. **Selecting, using, and maintaining hand tools.** ~~Personal protective equipment~~
- ~~2.Lock-out procedures~~
- ~~3.Hand tools~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:12 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:53 pm): Rollback: for further review

Key: 7940

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:37 am

Viewing: **HMTD 1105 : HMT Tools & Equipment**

Equip-2

Last approved: 07/04/18 4:59 am

Last edit: 12/19/18 11:05 am

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

HMT Tools & **Equipment** ~~Equip-2~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:20 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:53 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:34 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

54
(bgriffiths):
Approved for CTT
Dean
7. 12/20/18 3:00 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: HMT Tools & **Equipment Equip-2**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1105

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to the use of measuring instruments, power tools, drill **bits, bits** and shop equipment.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Select, use , use and maintain measuring tools, power tools, drill bits, and shop equipment. instruments
CLO #2	Select, use and maintain power tools
CLO #3	Select, use and maintain drill bits
CLO #4	Select, use and maintain shop equipment

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Measuring **tools**.
- ~~2.~~ ~~instruments~~
- ~~2.~~ Power **tools**.
- ~~3.~~ ~~tools~~
- ~~3.~~ Drill **bits**.
- ~~4.~~ ~~bits~~
- ~~4.~~ Shop **equipment**. ~~equipment~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:53 pm): Rollback: for further review

Key: 7942

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 1:52 pm

Viewing: **HMTD 1106 : Fittings & Fasteners**

Last approved: 07/04/18 5:01 am

Last edit: 12/20/18 1:22 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Fittings & Fasteners

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:21 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:58 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:39 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:50 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:00 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Fittings & Fasteners**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1106

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to imperial and metric fasteners, internal and external threads, tubing, pipe and fittings, ~~hose~~ and hose **and hose** fittings.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Select and use imperial and metric fasteners . fasteners
CLO #2	Cut and repair internal and external threads . threads
CLO #3	Select use and use repair tubing, pipe , pipe and fittings . fittings
CLO #4	Select and use hose , hose and hose fittings . fittings

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative-theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative-theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Imperial and metric **fasteners.**
2. **fasteners**
- ~~2-~~Internal and external **threads.**
3. **threads**
- ~~3-~~Tubing, **pipe, pipe** and **fittings.**
4. **fittings**
- ~~4-~~Hose and hose **fittings. fittings**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:58 pm): Rollback: Rollback requested by developer for editing.

Key: 7943

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:38 am

Viewing: **HMTD 1107 : Truck & Machine**

Operation 1 ~~Operation of Equipment~~

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 1:22 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Truck & Machine Operation 1 ~~Operation of Equipment~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:23 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:53 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:34 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

64
(bgriffiths):

Approved for CTT

Dean

7. 12/20/18 3:00 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Truck & Machine Operation 1** ~~Operation of Equipment~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1107

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to **pre-start** ~~prestart~~ and walk around inspections, starting aids, start up procedures, emergency **shutdown** ~~shut-down~~ procedures, ~~starting, operating,~~ and **lock-out procedures for trucks and** ~~shut-down-of equipment,~~ heavy duty **equipment.** ~~equipment lock-out, forklift operation.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Perform pre-start and walk-around inspections on trucks, wheeled and track equipment, including forklifts. Describe prestart and walk-around inspections
CLO #2	Start, move, operate, secure, and stop trucks, wheeled and track equipment, including forklifts. Describe starting aids
CLO #3	Describe start up procedures
CLO #4	Describe emergency shut-down procedures
CLO #5	Start, operate and shut down selected equipment
CLO #6	Lock out heavy duty equipment prior to service
CLO #7	Operate a forklift

Instructional Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)

Type	Percentage	Brief description of assessment activity
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative-theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Pre-start and walk-around inspections on trucks, wheeled and track equipment, including forklifts.**
2. **Starting and operating trucks, wheeled and track equipment, including forklifts.**
3. **Moving trucks, wheeled and track equipment, including forklifts.**
4. **Securing and stopping trucks, wheeled and track equipment, including forklifts.** ~~Prestart and walk-around inspections~~
- ~~2.Starting aids~~
- ~~3.Start up procedures~~
- ~~4.Emergency shut down procedures~~
- ~~5.Equipment start up, operation and shut down~~
- ~~6.Heavy duty equipment lock-out~~
- ~~7.Forklift operation~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:53 pm): Rollback: for further review

Key: 7945

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:38 am

Viewing: **HMTD 1108 : Truck & Machine**

Operation 2 ~~Lubricants~~

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 1:23 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Truck & Machine Operation 2 ~~Lubricants~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:23 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:54 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:34 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

⁶⁹
(bgriffiths):

Approved for CTT

Dean

7. 12/20/18 3:00 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Truck & Machine Operation 2 Lubricants**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1108

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to **pre-start lubricant identification, use and walk around inspections, start up procedures, emergency shutdown procedures, start, operate, shut down of forklift, and forklift certification (optional).** ~~service procedures.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Operate trucks, wheeled and track equipment, including forklifts. Identify lubricants
CLO #2	Complete forklift operator training (certification optional). Use lubricants
CLO #3	Describe lubricant service procedures

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System:

Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Operating trucks, wheeled and track equipment, including forklifts.**
2. **Forklift operator training (certification optional).** ~~Lubricants~~
- ~~2. Service procedures~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:54 pm): Rollback: for further review

Course Change Request

Date Submitted: 11/15/18 8:38 am

Viewing: **HMTD 1109 : Lubricants & Bearings**

~~Bearing Types and Function~~

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 1:24 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Lubricants & Bearings ~~Bearing Types and Function~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:24 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:54 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:33 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

⁷³
(bgriffiths):

Approved for CTT

Dean

7. 12/20/18 3:00 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Lubricants & Bearings Bearing Types and Function**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1109

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to **lubricant identification, use types of bearings, and seals as well as related service procedures (including grease job), bearings, and seals. procedures.**

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Identify and select lubricants. Identify bearings
CLO #2	Select and service bearings and seals. Identify seal types
CLO #3	Perform truck grease job. Service bearings and seals
CLO #4	Perform machine grease job.

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative-theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative-theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 7.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Lubricants.**
2. **Bearings and seals.**
3. **Truck grease jobs.**
4. **Machine grease jobs.** ~~Types of bearings~~
- ~~2.Types of seals~~
- ~~3.Bearing service procedures~~
- ~~4.Seal service procedures~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:54 pm): Rollback: for further review

Key: 7949

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:38 am

Viewing: **HMTD 1110 : Math, Physics & Worksafe**

HMT ~~Physics and Math~~

Last approved: 07/04/18 5:01 am

Last edit: 12/20/18 1:25 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Math, Physics & Worksafe Requirements for HMT ~~Physics and Math~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:26 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:54 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:33 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

78
(bgriffiths):

Approved for CTT

Dean

7. 12/20/18 3:00 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Math, Physics & Worksafe HMT** ~~Physics and Math~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1110

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Wire rope, lift, and support loads. This course introduces students to math and physics for heavy mechanical trades, load supporting and lifting, and servicing winch wire rope.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Use mathematics to solve problems involving whole numbers. Apply math and physics to a heavy mechanical trades context
CLO #2	Describe key terms and concepts for working with fractions, decimals, ratios, proportions, equations, and formulas. Lift and support loads
CLO #3	Solve problems involving common fractions, decimals, and decimal fractions. Service winch wire rope
CLO #4	Convert between common decimal fractions.
CLO #5	Describe and convert between metric and imperial measurements.
CLO #6	Solve problems using perimeters, areas, volumes, ratios, and proportions.
CLO #7	Describe and use angles and geometric construction.
CLO #8	Describe wire ropes and their applications.
CLO #9	Inspect and service wire ropes used on winches.
CLO #10	Apply the WorkSafe BC Safety Regulations to lifting and blocking applications.
CLO #11	Select, use and maintain lifting and blocking equipment: lift, move, and support loads on a variety of different machines, trucks, and automobiles(including pick-up trucks).

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

Course Topics:

1. **Whole numbers.**
 2. **Fractions, decimals, ratios, proportions, equations, and formulas.**
 3. **Common fractions, decimals, and decimal fractions.**
 4. **Common decimal fractions.**
 5. **Metric and imperial measurements.**
 6. **Perimeters, areas, volumes, ratios, and proportions.**
 7. **Angles and geometric construction.**
 8. **Wire ropes and their applications.**
 9. **Wire ropes used on winches.**
 10. **WorkSafe BC Safety Regulations to lifting and blocking applications.**
 11. **Lifting and blocking equipment for a variety of different machines, trucks, and automobiles (including pick-up trucks).** ~~Math and physics~~
- ~~2.Loads~~
- ~~3.Winch wire rope~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:54 pm): Rollback: for further review

Key: 7951

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:38 am

Viewing: **HMTD 1111 : Final Drives & Undercarriage 1 Undercarriages**

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:43 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Final Drives & Undercarriage 1 Undercarriages

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne (ndegagne):
Rollback to Initiator
2. 11/15/18 9:29 am
Richard Cyr (rcyr):
Approved for 4305 Leader
3. 11/15/18 9:35 am
Brett Griffiths (bgriffiths):
Approved for CTT Dean
4. 12/04/18 1:54 pm
Nicole Degagne (ndegagne):
Rollback to 4305 Leader for Curriculum Committee Chair
5. 12/05/18 1:33 pm
Richard Cyr (rcyr):
Approved for 4305 Leader
6. 12/05/18 2:00 pm
Brett Griffiths

(bgriffiths):⁸⁴

Approved for CTT

Dean

7. 12/20/18 3:00 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Final Drives & Undercarriage 1**
 Name: ~~Undercarriages~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1111

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

This course ~~uses introduces students to~~ the **principals of load supporting removal** and **lifting for the removal of installation of** track machine **undercarriages and final drives. undercarriages.**

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):**PLAR (Prior Learning Assessment & Recognition)**

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe track machine undercarriages.
CLO #2	Remove and reinstall track machine undercarriages.
CLO #3	Remove final drives.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages Passing grade:
70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Track machine undercarriages.**
2. **Removal of track machine undercarriages.**
3. **Removal of final drives. Undercarriage types**
2. **Undercarriage components**
3. **Undercarriage operation**
4. **Undercarriage removal and installation**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer
Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:54 pm): Rollback: for further review

Key: 7953

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:39 am

Viewing: **HMTD 1112 : Final Drives &**

Undercarriage 2

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:43 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Final Drives **& Undercarriage 2**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:29 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:54 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:33 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

89
(bgriffiths):
Approved for CTT
Dean
7. 12/20/18 3:00 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

- 1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Final Drives **& Undercarriage 2**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1112

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course ~~uses introduces students to~~ the **principals of load supporting removal** and **lifting for the installation of track machine undercarriages, service of** ~~of~~ final drives, and **installation of final drives.** ~~drive service.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

	Upon successful completion of this course, students will be able to:
CLO #1	Install track machine undercarriages. Remove and install final drives
CLO #2	Install Service-final drives. drives
CLO #3	Service final drives.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative-theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative-theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Portfolio	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:**1. Installation of track machine undercarriages.****2. Installation of final drives.****3. Servicing final drives. ~~Final-drive types~~**~~2.Components~~~~3.Basic-operation~~~~4.Inspection~~~~5.Lubrication~~~~6.Operational tests~~~~7.Scheduled maintenance~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:54 pm): Rollback: for further review

Key: 7954

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:01 pm

Viewing: **HMTD 1113 : Frames & Suspension**

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 1:26 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Frames & Suspension

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:30 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 9:35 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:58 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:39 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:50 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:00 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Frames **& Suspension**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1113

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to frame **types**, ~~types~~ and the **diagnosis** ~~diagnosis, removal~~ and repair of **frames and suspension**. ~~frames-~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe rail and frame types. types
CLO #2	Diagnose and repair frames.
CLO #3	Describe suspension systems.
CLO #4	Diagnose and repair suspension systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	20 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	80 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

20 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Rail and frame types.
2. Diagnosis and repair of frames.
3. Suspension systems.
4. Diagnosis and repair of suspension systems. ~~Types of rails~~
- ~~2.Types of frames~~
- ~~3.Frame and rail components~~
- ~~4.Frame component and inspection~~
- ~~5.Frame alignment~~
- ~~6.Frame repair~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:58 pm): Rollback: Rollback requested by developer for editing.

Key: 7956

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:39 am

Viewing: **HMTD 1114 : Tires, Wheels & ~~and~~Hubs**

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 1:27 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Tires, ~~Tires~~Wheels & ~~and~~Hubs

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:35 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:55 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:33 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

(bgriffiths)⁹⁹:

Approved for CTT

Dean

7. 12/20/18 3:00 pm

Todd Rowlatt

(trowlatt): Approved

for Curriculum

Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Tires, Wheels & ~~and~~ Hubs

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1114

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to the service and diagnosis of wheels, tires, and hubs.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):**PLAR (Prior Learning Assessment & Recognition)**

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe tires, rims, wheels, and hubs. Service and diagnose tires
CLO #2	Service tires, rims, wheels, and hubs. diagnose wheels
CLO #3	Describe external traction devices (chains, studded tires etc.). Service and diagnose hubs

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages Passing grade:
70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	20 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	80 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

20 ~~7.5~~

Practicum

Course Topics

Course Topics:

1. **Tires, rims, wheels, and hubs.**
2. **Servicing tires, rims, wheels, and hubs.**
3. **External traction devices (chains, studded tires etc.).** ~~Types of tires~~
- ~~2. Rating~~
- ~~3. Types of rims~~
- ~~4. Inspection~~
- ~~5. Safety precautions~~
- ~~6. Mounting and balancing~~
- ~~7. Types of hubs~~
- ~~8. Components and lubrication~~
- ~~9. Wheel hub service~~
- ~~10. Traction devices~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:55 pm): Rollback: for further review

Key: 7958

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:11 pm

Viewing: **HMTD 1115 : Workplace Skills 1**

Last approved: 07/04/18 4:58 am

Last edit: 12/19/18 11:17 am

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Workplace Skills 1

Effective Date:

May 2019

School/Centre:

Trades, Technology & Design

Department:

Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:36 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:58 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:40 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:50 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:00 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Workplace Skills 1

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1115

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

This course **has students review** ~~introduces learners to vocabulary and pronunciation specific to the~~ **concepts field** of **safe work practices, occupational health & safety, environmental practices, electronic media, vocabulary and pronunciation specific to the field of** heavy mechanical trades. It provides an introduction to the heavy mechanical repair industry and to the language and communication skills required for success as a technician. Reading, **writing, Writing,** and **interactive communication (listening Interactive Communication (Listening & speaking) Speaking)** skills are practiced in conjunction with topics from the heavy mechanical trades curriculum. Interpersonal and conversational skills are enhanced while working in a shop setting. Sociocultural competencies appropriate to the Canadian workplace will be introduced and practiced.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

	Upon successful completion of this course, students will be able to:
CLO #1	Review Worksafe BC policies and procedures. Identify various jobs in the heavy mechanical repair industry
CLO #2	Communicate using forms and reports. Explain general concepts and professional vocabulary specific to heavy mechanical trades
CLO #3	Use computers and written media to locate service and maintenance information. Identify repair products, tools and equipment
CLO #4	Describe the procedures to prepare for an efficient and effective repair (job action). Practice professional etiquette
CLO #5	Describe vehicles Participate and equipment maintained and repaired. communicate as a team member
CLO #6	Describe different business types.
CLO #7	Describe relationships between business, labour, and government.
CLO #8	Demonstrate positive employee attributes.
CLO #9	Describe employer responsibilities.
CLO #10	Prepare a resume and identify job search resources.
CLO #11	Prepare for an interview.

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Participation	50 20	Theory- includes formative assessments, assignments, and a summative assessment. Attendance, punctuality, engagement in class activities
Other Assignments	50 25	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Reading comprehension, written assignments
Lab Work	30	Listening comprehension, pronunciation
Assignments	25	Oral presentations

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5 ~~25~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

Course Topics:

1. **Worksafe BC policies and procedures.**
2. **Communication using forms and reports.**
3. **Computers and written media to locate service and maintenance information.**
4. **Procedures to prepare for an efficient and effective repair (job action).**
5. **Vehicles ~~Heavy mechanical procedures~~ and equipment maintained and repaired.**
6. ~~vocabulary~~
- ~~2. Different business types.~~
7. **Relationships between business, labour, and government.**
8. **Positive employee attributes.**
9. **Employer responsibilities.**
10. **Resumes and job search resources.**
11. **Interview preparation. ~~Giving and receiving direction~~**
- ~~3. Seeking and providing clarification~~
- ~~4. Professional and social communication~~
- ~~5. Common Canadian workplace values, beliefs and attitudes~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:58 pm): Rollback: Rollback requested by developer for editing.

Key: 7960

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:13 pm

Viewing: **HMTD 1201 : Hydraulic Steering Systems**

1

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 1:27 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Hydraulic Steering Systems 1

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:37 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:58 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:40 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:50 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:00 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	788-331-1320 -

Banner Course Name: **Hydraulic Steering** Systems 1

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1201

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Basic Theory. This course introduces students to **the principles of hydraulics, hydraulics safety, wheeled, truck and basic operation of hydraulic systems.** ~~track steering system fundamentals.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe the principles of hydraulics. Explain wheeled steering systems fundamentals
CLO #2	Describe basic hydraulic components and systems. Explain truck steering systems fundamentals
CLO #3	Describe safe work procedures. Explain tracked steering systems fundamentals
CLO #4	Use hydraulic training boards to enforce concepts. Describe wheeled steering system components and their function
CLO #5	Describe tracked steering system components and their function
CLO #6	Describe truck steering system components and their function

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	60 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	40 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

15 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

10 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Principles of hydraulics.
2. Basic hydraulic components and systems.
3. Safe work procedures.
4. Hydraulic training boards.

~~Steering types~~

~~2.Truck power assist~~

~~3.Track steering~~

~~4.Wheeled equipment steering~~

~~5.Truck system components~~

~~6.Track system components~~

~~7.Wheeled system components~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:58 pm): Rollback: Rollback requested by developer for editing.

Key: 7962

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:16 pm

Viewing: **HMTD 1202 : Hydraulic Steering Systems**

2

Last approved: 07/04/18 4:58 am

Last edit: 12/20/18 1:28 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Hydraulic Steering Systems 2

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:13 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:38 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:58 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:40 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:50 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

115

7. 12/20/18 3:00 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Hydraulic Steering** Systems 2

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1202

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Advanced Theory and Identification. This course introduces students to **various types of hydraulic systems, schematics, wheeled, truck** and **components.** ~~track steering system service.~~

Course Pre-Requisites (if applicable):

Course Co-requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe advanced types of hydraulic systems. Service and repair wheeled steering systems
CLO #2	Demonstrate safe work procedures. Service and repair truck steering systems
CLO #3	Interpret hydraulic schematics using hydraulic training boards and equipment in shop. Service and repair track steering systems

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Advanced types of hydraulic systems.**
2. **Safe work procedures.**
3. **Hydraulic schematics, hydraulic training boards and equipment in shop.**
- ~~Steering system inspection~~
- ~~2. Steering system lubrication~~
- ~~3. Scheduled maintenance~~
- ~~4. Steering adjustments~~
- ~~5. Drag links~~
- ~~6. Tie rod ends~~
- ~~7. Axle stops~~
- ~~8. Steering gears~~
- ~~9. Toe~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provic

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:13 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:58 pm): Rollback: Rollback requested by developer for editing.

Key: 7963

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:40 am

Viewing: **HMTD 1203 : Hydraulic Systems 3**

~~**Hydraulic System Theory 1**~~

Last approved: 08/02/18 4:48 am

Last edit: 12/20/18 1:28 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Hydraulic Systems 3 ~~Hydraulic System Theory 1~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:38 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:55 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:32 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

¹²⁰
 (bgriffiths):
 Approved for CTT
 Dean
 7. 12/20/18 3:00 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

- 1. Aug 2, 2018 by
 Carlie Deans
 (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Hydraulic Systems 3** ~~Hydraulic System Theory~~
 Subject Code: HMTD - Heavy Mechanical Technician
 Course Number: 1203
 Year of Study: 1st Year Post-secondary
 Credits: 1

Course Description:

Service. This course introduces **the** students to **performing scheduled maintenance** ~~the principles of hydraulics, basic operation of a~~ hydraulic **systems, hydraulic fluids and hydraulic hoses and fittings.** ~~systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Select hydraulic fluids for applications. Describe the principles of hydraulics
CLO #2	Select hydraulic hoses and fittings. Describe the basic operation of a hydraulic systems
CLO #3	Select and assemble hydraulic hoses and fittings.
CLO #4	Demonstrate safe work procedures for hydraulic system service.
CLO #5	Perform scheduled maintenance of hydraulic systems including fluid and filter change, and re-pressurizing of system (if applicable).

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Hydraulic fluids for applications.**
2. **Hydraulic hoses and fittings.**
3. **Assembling hydraulic hoses and fittings.**
4. **Safe work procedures for hydraulic system service.**
5. **Scheduled maintenance of hydraulic systems including fluid and filter change, and re-pressurizing of system (if applicable).** Terminology
2. Advantages/disadvantages
3. Fluid characteristics
4. Pascal's Law
5. Calculations
6. Bernoulli's Principle
7. Reservoirs
8. Pumps
9. Control valves

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer
Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:55 pm): Rollback: for further review

Key: 7964

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:54 pm

Viewing: **HMTD 1204 : Hydraulic Systems 4**

~~Hydraulic System Theory 2~~

Last approved: 07/04/18 4:58 am

Last edit: 12/20/18 1:29 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Hydraulic Systems 4 ~~Hydraulic System Theory 2~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:41 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/27/18 2:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:40 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

125
7. 12/20/18 3:00 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Hydraulic Systems 4** ~~Hydraulic System Theory~~

~~2~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1204

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

Diagnose and Repair. This course introduces students to ~~types of~~ hydraulic **systems diagnosis systems,** and **repair.** ~~the interpretation of hydraulic diagrams.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Diagnose hydraulic systems. Describe types of hydraulic systems
CLO #2	Repair hydraulic systems and components. Interpret basic hydraulic diagrams
<p>Instructional Strategies: Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.</p>	

Evaluation and Grading

Grading System: Percentages Passing grade:
 70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5
~~17.5~~

Lab, Clinical, Shop, Kitchen,
 Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Diagnosis of hydraulic systems.**
2. **Repairing hydraulic systems and components.** ~~Open-centre-valves~~
- ~~2.Closed-centre-valves~~
- ~~3.Vented-valves~~
- ~~4.Pressurized-valves~~
- ~~5.Pictoral-diagrams~~
- ~~6.Schematic-diagrams~~
- ~~7.Symbols~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/27/18 2:59 pm): Rollback: Rollback requested by developer for editing.

Course Change Request

Date Submitted: 11/27/18 5:59 pm

Viewing: **HMTD 1205 : Electrical Systems 1**

~~Hydraulic System Service 1~~

Last approved: 07/04/18 5:01 am

Last edit: 12/20/18 2:04 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Systems 1 ~~Hydraulic System Service 1~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:44 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:58 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/05/18 1:32 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

129
7. 12/20/18 3:00 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Electrical Systems 1** ~~Hydraulic System Service~~

Name: ±

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1205

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

Terminology, Concepts, Calculations, and Magnetic Theory. This course introduces students to **electrical terminology, basic theory, concepts, circuit calculations, hydraulic components** and **magnetic theory.**
~~hydraulic fluids.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Define electrical terminology. Describe selected hydraulic components.
CLO #2	Explain basic circuit concepts. Select hydraulic fluids for applications.
CLO #3	Perform circuit calculations.
CLO #4	Describe magnetic theory.

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	60 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	40 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

15 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

10 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Electrical terminology.**
2. **Basic circuit concepts.**
3. **Circuit calculations.**
4. **Magnetic theory. Seals**
- ~~2.Hoses/lines~~
- ~~3.Fittings~~
- ~~4.Filters~~
- ~~5.Hydraulic fluids requirements~~
- ~~6.SAE viscosity ratings~~
- ~~7.ISO viscosity ratings~~
- ~~8.API service ratings~~
- ~~9.Manufacturer's specifications~~
- ~~10.Synthetic/non synthetic (mineral)~~
- ~~11.Component/system compatibility~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Richard Cyr (rcyr) (11/15/18 9:44 am): Course name is "Electrical Systems 1- Terminology, Concepts, Calculations, and Magnetic Theory"

Carlie Deans (cdeans) (11/26/18 12:58 pm): Rollback: Rollback requested by developer for editing.

Key: 7968

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:41 am

Viewing: **HMTD 1206 : Electrical Systems 2**

~~Hydraulic System Service 2~~

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:12 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Systems 2 ~~Hydraulic System Service 2~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:45 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:55 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:32 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:00 pm
Brett Griffiths

134
(bgriffiths):
Approved for CTT
Dean
7. 12/20/18 3:00 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Electrical Systems 2 Hydraulic System Service**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1206

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Components, Wiring Diagrams, and Symbols. This course introduces students to **electrical components, wiring diagrams, hydraulic hoses and symbols.** ~~fittings, safe work practices, and scheduled maintenance.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Identify common electrical Select and electronic components. assemble hydraulic hoses and fittings.
CLO #2	Interpret wiring diagrams and symbols. Demonstrate safe work procedures for hydraulic systems service.
CLO #3	Perform scheduled maintenance on hydraulic systems.

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Common electrical and electronic components.**
2. **Wiring diagrams and symbols.** ~~Hose construction~~
 - ~~2. Working pressure~~
 - ~~3. Hose ratings~~
 - ~~4. Hose compatibility~~
 - ~~5. Hose application~~
 - ~~6. Fitting types~~
 - ~~7. Safety blocking equipment and attachments~~
 - ~~8. Relieve pressure~~
 - ~~9. Reservoir venting~~
 - ~~10. Actuator neutralization~~
 - ~~11. Temperature hazards~~
 - ~~12. Visual inspection~~
 - ~~13. Hose rubs, damage~~
 - ~~14. Fluid level check, filters, strainers, and flushes~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:55 pm): Rollback: for further review

Key: 7970

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:48 pm

Viewing: **HMTD 1207 : Electrical Systems 3 Basic**

Electricity 1

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:15 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Systems 3 Basic Electricity 1

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:46 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:40 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

139
7. 12/20/18 3:00 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Electrical Systems 3** ~~Basic Electricity 1~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1207

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Electrical Test Instruments and Batteries. This course introduces students to **the use of electrical test instruments terminology, basic theory concepts, circuit calculations,** and **diagnosis of electrical systems.**
~~magnetic theory-~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Use electrical measuring devices. terminology
CLO #2	Describe battery design and operation. Explain basic circuit concepts
CLO #3	Select, test, and maintain batteries. Perform circuit calculations
CLO #4	Diagnose causes of battery failure. Describe magnetic theory
CLO #5	Remove and replace batteries.
CLO #6	Use booster batteries.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative--theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative--theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Electrical **measuring devices.**
2. ~~terminology~~
- ~~2.~~ **Battery design and operation.**
3. **Selecting, testing, and maintaining batteries.**
4. **Battery failure.**
5. **Removing and replacing batteries.**
6. **Booster batteries.** ~~Basic circuit concepts~~
- ~~3.~~ ~~Circuit calculations~~
- ~~4.~~ ~~Magnetic theory~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:59 pm): Rollback: Rollback requested by developer for editing.

Key: 7972

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:51 pm

Viewing: **HMTD 1208 : Electrical Systems 4 Basic**

Electricity 2

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:16 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Systems 4 Basic Electricity 2

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:47 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:40 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

144
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Electrical Systems 4** ~~Basic Electricity 2~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1208

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Starting Systems 1: Theory and Service. This course introduces students to **basic starting system service.**
~~electrical and electronic components, wiring diagrams and symbols.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Identify common electrical components of starting circuits.
CLO #2	Describe the design and operation of starting circuits. Identify electronic components
CLO #3	Interpret wiring diagrams and symbols
CLO #3	Perform maintenance on starting circuits.

Instructional Strategies:
Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	60 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	40 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

15 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

10 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Components of starting circuits.**
 2. **Design and operation of starting circuits.**
 3. **Maintenance on starting circuits. Electrical components**
- ~~2. Electronic components~~
- ~~3. Wiring diagrams and symbols~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:59 pm): Rollback: Rollback requested by developer for editing.

Key: 7974

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:41 am

Viewing: **HMTD 1209 : Electrical Systems 5 Test**

Instruments

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:16 pm

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical **Systems 5 Test Instruments**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:47 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:55 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:31 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:03 pm
Brett Griffiths

148
(bgriffiths):
Approved for CTT
Dean
7. 01/02/19 2:00 pm
Carlie Deans
(cdeans): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Electrical **Systems 5** ~~Test Instruments-~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1209

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Charging Systems 1: Theory and Service. This course introduces students to **basic charging system service.**
~~the use of electrical test instruments and diagnosis of electrical circuits.-~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Identify charging system components. Describe common electrical measuring devices
CLO #2	Describe the purpose of charging circuits. Use electrical measuring devices
CLO #3	Perform routine maintenance on charging circuits. Diagnose electrical circuit faults

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages Passing grade:
70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Charging system components.**
2. **Purpose of charging circuits.**
3. **Routine maintenance on charging circuits. Analog vs. digital**
2. **Voltmeters**
3. **Ammeters**
4. **Ohmmeters**
5. **Multimeters (VOM)**
6. **Amp clamp**
7. **VAT's (Volt amp testers)**
8. **Continuity testers**
8. **Test lights**
9. **Safety precautions**
10. **Voltage drops**
11. **Shorts**
12. **Grounds**
13. **Opens**
14. **Resistance**
15. **Amperage draw**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:55 pm): Rollback: for further review

Key: 7976

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:56 pm

Viewing: **HMTD 1210 : Electrical Systems 6**

Batteries

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:16 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Systems 6 Batteries

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:48 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:40 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

153
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Electrical Systems 6 Batteries**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1210

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

Basic Electrical Circuit: Service. This course introduces students to **basic electrical circuit service.** ~~the diagnosis and service of batteries.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Service electrical circuits. Describe battery design and operation
CLO #2	Describe trailer wiring. Select, test and maintain batteries
CLO #3	Diagnose causes of battery failure
CLO #4	Remove and replace batteries
CLO #5	Use booster batteries

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Electrical circuits.**
2. **Trailer wiring.** ~~Safety considerations when working with batteries~~
2. ~~Design and construction of the various types of batteries~~
3. ~~Battery chemistry~~
4. ~~Battery selection~~
5. ~~Battery service~~
6. ~~Battery diagnosis~~
7. ~~Booster batteries~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:59 pm): Rollback: Rollback requested by developer for editing.

Key: 7984

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 2:58 pm

Viewing: **HMTD 1211 : Electrical ~~Basic Starting~~ Systems 7**

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:17 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical ~~Basic Starting~~ Systems 7

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:15 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:48 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:01 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Electrical ~~Basic Starting~~ Systems 7**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1211

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Basic Electrical Circuit: Diagnose and Repair. This course introduces students to **troubleshooting procedures, diagnosis, and repair of electrical circuits and systems.** ~~basic starting system service.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe the importance of following a diagnostic process. Identify components of starting circuits
CLO #2	Describe diagnostic procedures used for troubleshooting. Describe the design and operation of starting circuits
CLO #3	Diagnose and repair basic electrical systems and components. Inspect starting circuits
CLO #4	Identify electronic components.
CLO #5	Identify electronic systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Diagnostic process.**
2. **Diagnostic procedures used for troubleshooting.**
3. **Diagnosis and repair basic electrical systems and components.**
4. **Electronic components.**
5. **Electronic systems. Battery**
- ~~2.Starter motor assembly~~
- ~~3.Solenoids and relays~~
- ~~4.Ignition switch~~
- ~~5.Neutral safety switch/clutch pedal switch-~~
- ~~6.Cables and terminals~~
- ~~7.System voltage~~
- ~~8.Battery configuration~~
- ~~9.Inspection~~
- ~~10.Routine maintenance~~
- ~~11.Component removal and installation~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:15 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:59 pm): Rollback: Rollback requested by developer for editing.

Key: 7985

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/15/18 8:42 am

Viewing: **HMTD 1212 : Shop Simulation 1 Basic**

~~Charging Systems~~

Last approved: 07/04/18 4:58 am

Last edit: 12/19/18 11:34 am

Changes proposed by: ebach

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Shop Simulation 1 Basic ~~Charging Systems~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:14 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:49 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 12/04/18 1:55 pm
Nicole Degagne
(ndegagne):
Rollback to 4305
Leader for
Curriculum
Committee Chair
5. 12/05/18 1:31 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:03 pm
Brett Griffiths

163
(bgriffiths):
Approved for CTT
Dean
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Shop Simulation 1 Basic Charging Systems**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1212

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

This course introduces students to **simulated work in a heavy mechanical shop. basic charging system service.**

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Populate real-time work orders and job time expectations. Describe charging systems
CLO #2	Clock in and out on jobs and rest breaks. Perform routine maintenance on charging systems
CLO #3	Perform pre-lunch and end of shift cleanup.
CLO #4	Describe parts ordering process.
CLO #5	Prepare parts requisition.
CLO #6	Complete mechanics "work performed descriptions" on work orders.
CLO #7	Describe business profit and costs per work order (business overhead, labour cost, charge-out rate, cost of "come-backs").

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.

Type	Percentage	Brief description of assessment activity
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Real-time work orders and job time expectations.
2. Clocking in and out on jobs and rest breaks.
3. Pre-lunch and end of shift cleanup.
4. Parts ordering process.
5. Parts requisition.
6. "Work performed descriptions" on work orders.
7. Business profit and costs per work order (business overhead, labour cost, charge-out rate, cost of "come-backs"). ~~Charging system purpose~~
- ~~2. Charging system operation~~
- ~~3. Charging system connections~~
- ~~4. Charging system inspection~~
- ~~5. Output voltage/ampereage test~~
- ~~6. Belt condition and tension~~
- ~~7. Alternator removal and replacement~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:14 pm): Rollback: revisions not complete

Nicole Degagne (ndegagne) (12/04/18 1:55 pm): Rollback: for further review

Key: 7986

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:03 pm

Viewing: **HMTD 1213 : Steering Systems 1**

~~Electrical Circuit Service 1~~

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:18 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Steering Systems 1 ~~Electrical Circuit Service 1~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:15 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:52 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:03 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

168
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Steering Systems 1** ~~Electrical Circuit Service 1~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1213

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

Truck Steering. This course introduces students to **truck steering systems theory, service, diagnosis, and repair.** ~~basic electrical system service.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe steering systems. Describe and replace electrical components
CLO #2	Service steering systems. Select and install conductors and terminals/connectors
CLO #3	Describe the construction and operation of power assisted steering systems.
CLO #4	Diagnose power assisted steering systems.
CLO #5	Repair power assisted steering systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Steering systems.**
2. **Servicing steering systems.**
3. **Construction and operation of power assisted steering systems.**
4. **Diagnosis of power assisted steering systems.**
5. **Repairing power assisted steering systems. Lamps**
2. **Starters**
3. **Alternators**
4. **Batteries**
5. **Switches**
6. **Motors**
7. **Fuses**
8. **Wire-gauge**
9. **Terminals/connectors**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:15 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:03 pm): Rollback: Rollback requested by developer for editing.

Key: 7988

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:06 pm

Viewing: **HMTD 1214 : Steering Systems 2**

~~**Electrical Circuit Service 2**~~

Last approved: 07/04/18 4:58 am

Last edit: 12/20/18 2:18 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Steering Systems 2 ~~Electrical Circuit Service 2~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 9:56 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

173
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Steering Systems 2** ~~Electrical Circuit Service 2~~

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 1214

Year of Study 1st Year Post-secondary

Credits: 1

Course Description:

Machine Steering. This course introduces students to wheeled and track type equipment steering theory, service, diagnosis, and repair. ~~This course builds on the topics covered in Electrical Circuit Service 1.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Describe track and wheeled type steering systems (differential steering [bulldozer] , skid steer, articulated steering [loader], rear steer [forklift] , foot-hand control steering [excavator]). Describe and repair sources of circuit faults
CLO #2	Service selected track and wheel type steering systems (skid steer, forklift, loader). Describe and repair trailer wiring circuits
CLO #3	Diagnose and repair selected wheel type equipment (loader)steering systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5
~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Track and wheeled type steering systems: (differential steering [bulldozer] , skid steer, articulated steering [loader], rear steer [forklift] , foot-hand control steering [excavator]).**

2. **Selected track and wheel type steering systems (skid steer, forklift, loader).**

3. **Diagnosis and repair selected wheel type equipment (loader) steering systems. ~~Blown fuses~~**

~~2.Fusable links~~

~~3.Circuit breaker~~

~~4.Connection faults~~

~~5.Wiring~~

~~6.Trailer connectors~~

~~7.Junction boxes~~

~~8.Wiring harness~~

~~9.Circuit identification~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:59 pm): Rollback: Rollback requested by developer for editing.

Key: 7990

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:07 pm

Viewing: **HMTD 1215 : Workplace Skills 2**

Last approved: 07/04/18 4:58 am

Last edit: 12/19/18 11:39 am

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Workplace Skills 2

Effective Date:

May 2019

School/Centre:

Trades, Technology & Design

Department:

Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:15 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:01 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:36 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:01 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Workplace Skills 2

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 1215

Year of Study: 1st Year Post-secondary

Credits: 1

Course Description:

~~This course builds on the communication skills and strategies which were developed in Workplace Skills 1.~~ **This course advances the** ~~It introduces~~ learners ~~to~~ vocabulary and pronunciation specific to **the** ~~the~~ heavy mechanical industry. It also provides the opportunity to practice more complex language and communication skills required for teamwork and professionalism such as problem-solving and conflict resolution. Using an experiential learning approach with focus on role-rehearsals and coaching, this course will provide learners with the opportunity to work independently and in a cooperative team environment. Learners will practice communication strategies like: clarifying and confirming understanding of client services, following instructions, troubleshooting and **problem-solving to a higher level.** ~~problem-solving-~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

	Upon successful completion of this course, students will be able to:
CLO #1	Describe the current heavy mechanics trade. Identify various services in the heavy mechanical repair industry
CLO #2	Describe the range of working conditions. Apply general concepts and professional vocabulary specific to heavy mechanical repair
CLO #3	Describe the vehicles and equipment maintained and repaired in the heavy mechanical trade. Choose appropriate repair products, tools and equipment
CLO #4	Describe legislation affecting employment. Use professional etiquette
CLO #5	Review the importance of following diagnostic procedures. Work effectively as a team member
CLO #6	Review the procedures to prepare for an efficient and effective repair (job action). Apply effective study skills to support learning
CLO #7	Review different business types (retail shops, fleet maintenance etc.).
CLO #8	Review the relationships between business, labour, and government.
CLO #9	Review positive employee attributes.
CLO #10	Review employer and employee responsibilities.
CLO #11	Update a resume, identify new job search resources, and report findings.
CLO #12	Update cover letter and report on results.
CLO #13	Prepare for and perform mock interview.
CLO #14	Prepare for industry interview.

Upon successful completion of this course, students will be able to:

CLO #15 Follow up on an interview.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Participation	50 20	Theory- includes formative assessments, assignments, and a summative assessment. Attendance, punctuality, engagement in class activities
Other Assignments	50 25	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Reading comprehension, written assignments
Lab Work	30	Listening comprehension, pronunciation
Assignments	25	Oral presentations

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5 ~~25~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Current heavy mechanics trade.**
2. **Working conditions.**
3. **Vehicles ~~Heavy mechanical repair concepts, procedures~~ and equipment maintained and repaired in the heavy mechanical trade.**
4. ~~vocabulary~~
2. **Legislation affecting employment.**
5. **Diagnostic procedures.**
6. **Efficient and effective repair (job action).**
7. **Different business types (retail shops, fleet maintenance etc.).**
8. **Relationships between business, labour, and government.**
9. **Positive employee attributes.**
10. **Employer and employee responsibilities.**
11. **Resumes, cover letters, and new job search resources.**
12. **Industry interviews and follow-up. ~~Giving and receiving direction~~**
3. ~~Seeking and providing clarification~~
4. ~~Professional and social communication~~
5. ~~Common Canadian workplace values, beliefs and attitudes~~
6. ~~Study skills~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Prov

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:15 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:59 pm): Rollback: Rollback requested by developer for editing.

Key: 7991

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:10 pm

Viewing: **HMTD 2101 : Cab & ~~and~~ Protective Structures**

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:19 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Cab & ~~and~~ Protective Structures

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:01 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 12:59 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

184
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Cab & ~~and~~ Protective Structures

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2101

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

This course introduces students to cab and protective structures.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe regulations related to protective structures of equipment. Identify cabs, bodies and structural components
CLO #2	Perform service and inspection of protective structures on equipment. Service cabs, bodies and structural components
CLO #3	Identify cabs, bodies (including service body types, ie: refer van body, mechanics service body, high voltage service body, etc.), and components on truck transport vehicles.
CLO #4	Service cabs, bodies, and components on truck transport vehicles.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Regulations related to protective structures of equipment.
2. Service and inspection of protective structures on equipment.
3. Cabs, bodies (including service body types, ie: refer van body, mechanics service body, high voltage service body, etc.), and components on truck transport vehicles.
4. Servicing cabs, bodies, and components on truck transport vehicles. ~~Cab types~~
 - ~~2.Cab components~~
 - ~~3.Fixed cabs~~
 - ~~4.Air ride~~
 - ~~5.Doors~~
 - ~~6.Windows~~
 - ~~7.Seats~~
 - ~~8.Supplemental restraint system (air bag)~~
 - ~~9.Sleepers~~
 - ~~10.Ventilation systems~~
 - ~~11.Mounting~~
 - ~~12.Inspection~~
 - ~~13.Replacement~~
 - ~~14.Adjustments~~
 - ~~15.Lubrication~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a ration
for this proposa

Are there any:

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 12:59 pm): Rollback: Rollback requested by developer for editing.

Key: 7993

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:12 pm

Viewing: **HMTD 2102 : Hydraulic Brake Systems 1**

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:19 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Hydraulic Brake Systems **1**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:15 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:02 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:00 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

189
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Hydraulic Brake Systems **1**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2102

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Theory and Service. This course introduces students to hydraulic brake **systems with a focus on the principles of system operation leading into basic system service procedures.** ~~systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe hydraulic brake types and systems: automotive, heavy truck, and machine (including forklift). Describe the principles of braking
CLO #2	Service hydraulic brakes. Describe hydraulic brakes. principles
CLO #3	Describe the foundation brake
CLO #4	Describe the hydraulics of a brake system
CLO #5	Describe brake fluids

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	70 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative-theory)
Other Exam	30 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative-theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

17.5

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

7.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

- 1. Hydraulic brake types and systems: automotive, heavy truck, and machine (including forklift).**
- 2. Servicing hydraulic brakes. Principles of friction**
- ~~2. Effects of speed and weight~~
- ~~3. Brake fade~~
- ~~4. Foundation brake types~~
- ~~5. Foundation brake operation~~
- ~~6. Brake system hydraulics~~
- ~~7. Brake fluids~~
- ~~8. Parking brake systems~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:15 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 7996

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:16 pm

Viewing: **HMTD 2103 : Hydraulic Brake Systems 2**

Service 1

Last approved: 07/04/18 4:58 am

Last edit: 12/20/18 2:22 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Hydraulic Brake **Systems 2 Service 1**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:03 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:00 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 2:51 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

194
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Hydraulic Brake **Systems 2 Service 1-**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2103

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Diagnose and Repair. This course introduces students to hydraulic brake system service.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will be able to:	
CLO #1	Diagnose hydraulic brake systems. Describe hydraulic components
CLO #2	Repair hydraulic brake systems and components. Select hydraulic fluids
CLO #3	Service, diagnose, and repair parking brake systems. Select hydraulic hoses and fittings
CLO #4	Describe parking brake systems

Instructional Strategies:
Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Course Topics

Course Topics:

1. **Diagnosis of hydraulic brake systems.**
2. ~~Dise~~
2. ~~Drum~~
3. ~~Multidise~~
4. ~~Master cylinder~~
5. ~~Metering valve~~
6. ~~Proportioning valve~~
7. ~~Switches~~
8. ~~Brake fluids~~
9. ~~Repairing hydraulic Parking~~ brake systems **and components.**
3. **Parking brake systems.**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 7997

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:17 pm

Viewing: **HMTD 2104 : Hydraulic Brake Systems 3**

~~Service 2~~

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:22 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Hydraulic Brake **Systems 3** ~~Service 2~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:15 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:04 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:00 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

199
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Hydraulic Brake **Systems 3 Service-2-**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2104

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Antilock Braking, Stability Control Systems, and Power Boosters. This course Introduces the students to various styles of power assisted hydraulic brake systems and hydraulic anti-lock/stability control braking systems. This course builds on the topics explored in Hydraulic Brake Service 1.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Describe vacuum booster types and sources of vacuum. Diagnose hydraulic brake systems
CLO #2	Describe hydraulically boosted/assisted power brakes. Repair hydraulic brake systems
CLO #3	Diagnose and repair hydraulically boosted/assisted power brakes. Service park brake systems
CLO #4	Describe hydraulic anti-lock braking (ABS) systems. Perform preventative maintenance
CLO #5	Diagnose and repair hydraulic anti-lock braking (ABS) systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Vacuum booster types and sources of vacuum.**
2. **Hydraulically boosted/assisted power brakes.**
3. **Diagnosis and repair hydraulically boosted/assisted power brakes.**
4. **Hydraulic anti-lock braking (ABS) systems.**
5. **Diagnosis and repair hydraulic anti-lock braking (ABS) systems .** ~~Diagnostic procedures~~
- ~~2.Operational checks~~
- ~~3.Fluid conditional and level~~
- ~~4.Hydraulic component inspection~~
- ~~5.Hydraulic component repairs~~
- ~~6.Removal and installation~~
- ~~7.Fluid flushing~~
- ~~8.Park brake inspection and repair~~
- ~~9.Preventative maintenance~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:15 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 7999

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:18 pm

Viewing: **HMTD 2105 : Air Brake Systems 1 Power Brakes**

Last approved: 07/04/18 5:01 am

Last edit: 12/20/18 2:23 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Air Brake Systems 1 Power Brakes

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne (ndegagne):
Rollback to Initiator
2. 11/15/18 10:04 am
Richard Cyr (rcyr):
Approved for 4305 Leader
3. 11/15/18 11:37 am
Brett Griffiths (bgriffiths):
Approved for CTT Dean
4. 11/26/18 1:00 pm
Carlie Deans (cdeans): Rollback to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305 Leader
6. 12/03/18 3:03 pm
Brett Griffiths (bgriffiths):
Approved for CTT Dean

204
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Air Brake Systems 1** ~~Power Brakes~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2105

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Theory and Service. This course introduces students to ~~air power~~ brake **systems principles of operation as well as basic service procedures.** ~~systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe the principles of braking. power brake systems
CLO #2	Describe the principles of pneumatics. Diagnose power brake systems
CLO #3	Describe air brake schedules and components. Repair power brake systems
CLO #4	Service air brake systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Course Topics

Course Topics:

1. Principles of braking.
2. Principles of pneumatics.
3. Air brake schedules and components.
4. Air brake systems. ~~Vacuum boost~~
- ~~2. Hydro-boost~~
- ~~3. Hydro-max~~
- ~~4. Diagnostic procedures~~
- ~~5. Component testing and inspection~~
- ~~6. Repair and replacement~~
- ~~7. Adjustments~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 8001

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:19 pm

Viewing: **HMTD 2106 : Air Brake Systems 2** 

Last approved: 07/14/18 4:33 am

Last edit: 12/20/18 2:23 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Air Brake Systems **2** 

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:05 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:00 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

209
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 14, 2018 by
Carlie Deans
(cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Air Brake Systems **2 ±**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2106

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Inspection and Repair. This course introduces students to **the procedures for inspection and repair of air brake systems.**

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Repair foundation brake assemblies. Describe the principles of air brakes
CLO #2	Describe pre-trip brake inspections. Describe the principles of pneumatics
CLO #3	Perform a pre-trip brake inspection. Describe basic air brake systems
CLO #4	Describe the basics of air brake schedules

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. ~~Heat absorption and dissipation~~
2. ~~Effects of speed and weight~~
3. ~~Brake fade~~
4. ~~Water cooling~~
5. ~~Characteristics of air~~
6. ~~Force, pressure and area~~
7. ~~Time lag~~
8. ~~Pneumatic balance~~
9. Foundation brake **assemblies.**
2. **components**
10. **Pre-trip Air** brake **inspections. schedules**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 8003

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:43 pm

Viewing: **HMTD 2107 : Air Brake Systems 3 2**

Last approved: 07/04/18 5:01 am

Last edit: 12/20/18 2:24 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Air Brake Systems **3 2**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:05 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:00 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

214
7. 12/20/18 3:01 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Air Brake Systems **3 2-**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2107

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Pneumatic Anti-lock Braking and Stability Control Systems. This course introduces students to basic pneumatic air brake system troubleshooting and pneumatic anti-lock brake and stability systems. This course builds on topics discussed in Air Brake Systems 1.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe trailer brakes and their components. Repair foundation brake assemblies
CLO #2	Describe air over hydraulic systems and their components. Service air brakes
CLO #3	Describe air anti-lock braking, traction control, and vehicle stability systems. Describe tractor pre-trip brake inspection
CLO #4	Diagnose and repair air anti-lock braking, traction control, and vehicle stability systems. Perform tractor pre-trip brake inspection

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Trailer brakes and their components.**
2. **Air over hydraulic systems and their components.**
3. **Air anti-lock braking, traction control, and vehicle stability systems.**
4. **Diagnosis and repair air anti-lock braking, traction control, and vehicle stability systems.** ~~Inspection~~
2. ~~Disassembly~~
3. ~~Replacement~~
4. ~~Measurement~~
5. ~~Adjustment~~
6. ~~Tractor and trailer brakes~~
7. ~~Tractor and trailer pre-trip inspection~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 8004

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:46 pm

Viewing: **HMTD 2108 : Cab Heating, Ventilation & AC HVAC Systems 1**

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:27 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Cab Heating, Ventilation & Air Conditioning Systems HVAC Systems 1

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne (ndegagne):
Rollback to Initiator
2. 11/15/18 10:06 am
Richard Cyr (rcyr):
Approved for 4305 Leader
3. 11/15/18 11:37 am
Brett Griffiths (bgriffiths):
Approved for CTT Dean
4. 11/26/18 1:00 pm
Carlie Deans (cdeans): Rollback to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305 Leader
6. 12/03/18 3:03 pm
Brett Griffiths (bgriffiths):
Approved for CTT Dean

219
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Cab Heating, Ventilation & AC HVAC Systems**

Name: **±**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2108

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

This course introduces students to ~~heating, ventilation, and air conditioning~~ (HVAC) **Heating, Ventilation, and Air Conditioning** systems.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Identify heating and air conditioning components.
CLO #2	Describe the construction and operation of heating and air conditioning systems.
CLO #3	Describe the impact of refrigerants (CFC, HFC, HCFC, etc.) chlorofluorocarbons (CFCs) on the environment.
CLO #4	Apply legislated procedures when dealing with systems containing refrigerants.
CLO #5	Diagnose heating and air conditioning systems.
CLO #6	Repair heating and air conditioning systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

17.5

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 7.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Heating Design and operation of heating and air conditioning components.**
2. **systems**
4. **Construction Principles of heating and operation of heating and air conditioning systems.**
3. **systems**
2. **The impact of refrigerants (CFC, HFC, HCFC, etc.) on the environment.**
4. **Legislated procedures when dealing with systems containing refrigerants.**
5. **Heating Components of heating and air conditioning systems.**
- systems
3. **Design and operation of heating and air conditioning systems**
4. **CFCs**
5. **Diagnosis of heating and air conditioning systems**
6. **Repair of heating and air conditioning systems**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 8006

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 3:54 pm

Viewing: **HMTD 2109 : Refrig, Ventilation & AC**

~~**HVAC Systems 2**~~

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 3:04 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Refrigeration Unit Heating, Ventilation & Air Conditioning Systems ~~HVAC Systems 2~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne (ndegagne):
Rollback to Initiator
2. 11/15/18 10:08 am
Richard Cyr (rcyr):
Approved for 4305 Leader
3. 11/15/18 11:37 am
Brett Griffiths (bgriffiths):
Approved for CTT Dean
4. 11/26/18 1:00 pm
Carlie Deans (cdeans): Rollback to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305 Leader
6. 12/03/18 3:03 pm
Brett Griffiths (bgriffiths):
Approved for CTT Dean

7. 12/20/18 3:02 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Refrig, Ventilation & AC HVAC Systems 2**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2109

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

This course introduces students to trailer and service body heating and refrigeration systems. This course builds on topics discussed in HVAC Systems 1.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Identify heating and refrigeration components. Apply legislated procedures when dealing with systems containing chlorofluorocarbons (CFCs).
CLO #2	Perform lock-out and fall protection procedures while working on reefers. Diagnose heating and air conditioning systems.
CLO #3	Describe reefer operation, starting procedure and temperature setting procedure. Repair heating and air conditioning systems.
CLO #4	Service reefer engine (oil, oil filters, fuel filters, check air filter, check belts).
CLO #5	Inspect reefer body seal, fan output, water in fuel, refrigerant type and pressures.
CLO #6	Diagnose and repair refrigeration units.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

- 1. Heating and refrigeration components.**
 - 2. Lock-out and fall protection procedures while working on reefers.**
 - 3. Reefer operation, starting procedure and temperature setting procedure.**
 - 4. Reefer engines (oil, oil filters, fuel filters, check air filter, check belts).**
 - 5. Reefer body seal, fan output, water in fuel, refrigerant type and pressures.**
 - 6. Refrigeration units. CFCs**
- ~~2. Diagnosis of heating and air conditioning systems~~
- ~~3. Repair of heating and air conditioning systems~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Key: 8008

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 4:03 pm

Viewing: **HMTD 2110 : Trailers 1** ~~Trailers Couplers~~

~~Landing Gear~~

Last approved: 07/04/18 4:58 am

Last edit: 12/20/18 2:28 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Trailers 1 ~~Trailers, Couplers and Landing Gear~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:08 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:00 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:41 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

229
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Trailers 1** ~~Trailers-Couplers-Landing-Gear~~

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2110

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Landing Gear and Couplers. This course introduces students to **trailer accessories such as accessories, lift gates, landing gear, gears,** winches, **hitches, hitches** and couplers.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe the construction and operation of landing gear and winches. accessories
CLO #2	Service and repair lift gates, landing gear gears and winches. winches
CLO #3	Describe and service hitches and couplers. couplers

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Construction and operation of **landing gear and winches.**
2. **accessories**
- ~~2. Servicing and repairing Lift gates, landing gear and winches.~~
3. **gears and winches**
- ~~3. Hitches and couplers. Tractor-trailer combinations~~
4. **Fifth-wheels**
- ~~5. Bolster plates and king pins~~
- ~~6. Pintle hooks and eyes~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:00 pm): Rollback: Rollback requested by developer for editing.

Course Change Request

Date Submitted: 11/27/18 4:05 pm

Viewing: **HMTD 2111 : Trailers 2** ~~Trailer Systems and Components~~

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:29 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Trailers 2 ~~Trailer Systems and Components~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne (ndegagne):
Rollback to Initiator
2. 11/15/18 10:09 am
Richard Cyr (rcyr):
Approved for 4305 Leader
3. 11/15/18 11:37 am
Brett Griffiths (bgriffiths):
Approved for CTT Dean
4. 11/26/18 1:01 pm
Carlie Deans (cdeans): Rollback to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305 Leader
6. 12/03/18 3:04 pm
Brett Griffiths (bgriffiths):
Approved for CTT Dean

233
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Trailers 2** ~~Trailer Systems and Components~~

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2111

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Body Components and Lift Gates. This course introduces students to trailer body components and **lift gates.** ~~trailer heating and refrigeration systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe the purpose, operation, purpose and design operation of trailer body components .
CLO #2	Remove and install trailer body components .
CLO #3	Diagnose and repair trailer body components .
CLO #4	Repair trailer body components
CLO #5	Identify heating and refrigeration components
CLO #6	Diagnose refrigeration units.
CLO #7	Repair heating and refrigeration systems.
CLO #4	Describe lift gates.
CLO #5	Service lift gates.
CLO #6	Diagnose and repair lift gates.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
------	------------	--

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5
~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Trailer body **components.**
- ~~2. components~~
- ~~2. Removal and installation of trailer body components.~~
- 3. Diagnosis and repair of trailer body components.**
- 4. Lift gates.**
- 5. Servicing lift gates.**
- 6. Diagnosis and repair of lift gates.** ~~Trailer refrigeration components~~
- ~~3. Refrigeration system hazards~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8009

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 4:09 pm

Viewing: **HMTD 2112 : Powertrain 1 Diesel Engine**

Support Systems

Last approved: 07/06/18 4:46 am

Last edit: 12/20/18 2:29 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 1 Diesel Engine Support Systems

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:10 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

238
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 6, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Powertrain 1 Diesel Engine Support Systems**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2112

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Engine Support Systems 1: Cooling and Lubrication. This course introduces students to **the theory of diesel engine operation, cooling and lubrication systems maintenance, and engine removal preparation.** ~~support systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe operation of two and four stroke engines. Describe engine support systems.
CLO #2	Describe Service engine cooling and lubrication support systems.
CLO #3	Service engine cooling and lubrication systems. Describe combustion of two and four stroke engines.
CLO #4	Identify and employ procedures to prepare a diesel engine for removal.

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Two** ~~Operation of two~~ and four stroke **engines.**
2. ~~internal combustion engines~~
2. **Engine cooling and lubrication systems.**
3. **Servicing engine cooling and lubrication systems.**
4. **Procedures to prepare a diesel engine for removal.** ~~Cooling systems~~
3. ~~Lubrication systems~~
4. ~~Air induction systems~~
5. ~~Exhaust systems~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8015

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 4:10 pm

Viewing: **HMTD 2113 : Powertrain 2 Diesel Fuel**

Systems

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:30 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 2 Diesel Fuel Systems

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:10 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:02 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Powertrain 2 Diesel Fuel Systems**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2113

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Engine Support Systems 2: Intake and Exhaust. This course introduces students to **intake and exhaust systems maintenance, and engine removal procedures.** ~~diesel fuel systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
 Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe engine intake and exhaust systems. Describe characteristics of diesel fuel.
CLO #2	Service engine intake and exhaust systems. Describe diesel fuel supply circuits and their components.
CLO #3	Remove engine. Perform limited service on diesel supply circuits.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages Passing grade:
70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Engine intake and exhaust systems.
2. Servicing engine intake and exhaust systems.
3. Removing engines. Fuel grades
 2. Fuel viscosity
 3. Cetane
 4. Flashpoint
 5. Sulfur content
 6. Disposal
 7. Safety precautions
 8. Fuel supply circuit types
 9. Fuel tanks, lines, filters and pumps
 10. Fuel supply circuit service and operation

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8013

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 4:13 pm

Viewing: **HMTD 2114 : Powertrain 3 Diesel Eng**
Removal Procedures

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:30 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 3 Diesel Engine Removal Procedures

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:11 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:02 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Powertrain 3 Diesel Eng Removal Procedures**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2114

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Engine Fuel Systems: Remove and Install. This course introduces students to diesel engine **fuel supply systems maintenance and diesel engine installation** ~~removal~~ procedures.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:	
CLO #1	Describe the characteristics of procedures to prepare a diesel fuel. engine for removal
CLO #2	Describe diesel fuel supply circuits and their components. Remove diesel engines
CLO #3	Service diesel fuel supply circuits
CLO #4	Install diesel engine.

Instructional Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Diesel fuel.
2. Diesel fuel supply circuits and their components.
3. Servicing diesel fuel supply circuits.
4. Diesel engines. ~~Cleaning~~
- ~~2.Lockout~~
- ~~3.Precautions~~
- ~~4.Tagging~~
- ~~5.Support and blocking of vehicle/equipment~~
- ~~6.Drain and/or discharge of systems~~
- ~~7.Remove hoses/lines and wiring~~
- ~~8.Support or removal of attachments~~
- ~~9.Rigging/lifting devices~~
- ~~10.Engine support after removal~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer
Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8016

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 4:23 pm

Viewing: **HMTD 2115 : Powertrain 4 Diesel Eng**
~~Install Procedures~~

Last approved: 07/04/18 5:01 am

Last edit: 12/20/18 2:31 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 4 Diesel Engine Installation Procedures

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:12 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:02 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Powertrain 4 Diesel Eng Install Procedures**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2115

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Manual Transmissions and Clutches: Theory, Diagnose, Remove, and Install. This course introduces students to **manual and automated manual transmissions and clutches.** ~~diesel engine installation procedures.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe, service, diagnose, and repair clutches and related components. Describe the procedures to prepare a diesel engine for installation and startup
CLO #2	Describe the operation of manual and automated manual transmissions. Install diesel engines
CLO #3	Service, remove and install manual transmissions.

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Clutches and related components.**
2. **Manual and automated manual transmissions.**
3. **Servicing, removing and installing manual transmissions.** ~~Selection and use of rigging/lifting devices~~
- ~~2. Installation attachments~~
- ~~3. Installation of hoses/lines and wiring~~
- ~~4. Refilling systems~~
- ~~5. Verification of crankshaft rotation and endplay~~
- ~~6. Prestart checks~~
- ~~7. Verify operation and leak checks~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8019

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 4:24 pm

Viewing: **HMTD 2201 : Powertrain 5**

~~Automatic/Manual Transmissions~~

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:31 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 5 ~~Automatic and Manual Transmissions~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:16 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:12 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:02 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Powertrain 5 Automatic/Manual Transmissions**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2201

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Automatic Transmissions and Torque Converters: Theory, Diagnose, Remove, and Install. This course introduces students to automatic and **powershift transmissions as well as torque converters and torque dividers.** ~~manual transmissions.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe torque converters and dividers. Identify clutches and related components
CLO #2	Service torque converters clutches and dividers. related components
CLO #3	Describe Identify the operation of powershift and automatic transmissions. manual transmissions
CLO #4	Service powershift and automatic transmissions. Service manual transmissions
CLO #5	Remove and install automatic/powershift transmissions. Identify purpose of torque converters and dividers
CLO #6	Remove Service torque converters and install torque converters/dividers. dividers
CLO #7	Identify the operation of powershift and automatic transmissions
CLO #8	Service powershift and automatic transmissions

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)

Type	Percentage	Brief description of assessment activity
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,

Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Torque converters and dividers.**
 2. **Servicing torque converters and dividers.**
 3. **Powershift and automatic transmissions.**
 4. **Servicing powershift and automatic transmissions.**
 5. **Removing and installing automatic/powershift transmissions.**
 6. **Removing and installing torque converters/dividers. Clutches**
- ~~2.Related-clutch-components~~
- ~~3.Manual-transmissions~~
- ~~4.Torque-converters~~
- ~~5.Dividers~~
- ~~6.Powershift-transmissions~~
- ~~7.Automatic-transmissions~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:16 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8021

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 4:54 pm

Viewing: **HMTD 2202 : Powertrain 6 Driveline**

Systems

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:32 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 6 Driveline Systems

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:17 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:13 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/05/18 1:31 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

263
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Powertrain 6 Driveline Systems**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2202

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Driveline and Drive Axles: Theory, Diagnose, Remove, and Install. This course introduces students to driveline **and drive axle** systems.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe drivelines and their components.
CLO #2	Service drivelines and diagnose drivelines and their components.
CLO #3	Describe drive axles.
CLO #4	Service and diagnose drive axles.
CLO #5	Remove and install drivelines.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,

Studio, Simulation

17.5 ~~7.5~~

Practicum

Course Topics

Course Topics:

1. Drivelines and their components.
2. Servicing and diagnosing drivelines and their components.
3. Drive axles.
4. Servicing and diagnosing drive axles.
5. Removing and installing drivelines. Driveline types
- 2.U-joints
- 3.Yokes
- 4.Slip joints
- 5.Driveline service
- 6.Driveline inspection
- 7.Maintenance

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:17 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8024

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:01 pm

Viewing: **HMTD 2203 : Powertrain 7 Differential Systems**

Last approved: 07/04/18 4:58 am

Last edit: 12/20/18 2:33 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 7 Differential Systems

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:17 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:14 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:37 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

268
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course **Powertrain 7 Differential Systems**

Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2203

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Differentials and Internal Traction Control Devices: Theory, Diagnose, Remove, and Install. This course introduces students to differential **systems and internal traction control devices (lockers).** ~~systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Remove and install differentials (from drive axles). Describe machine final drives.
CLO #2	Service and diagnose differentials. Service machine final drives.
CLO #3	Describe internal traction control devices (differential and inter-axle lockers; types and applications).

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Removing and installing differentials (from drive axles).**
2. **Servicing and diagnosing differentials.**
3. **Internal traction control devices (differential and inter-axle lockers; types and applications).** ~~Inboard final drives~~
2. ~~Outboard final drives~~
3. ~~Planetary gears~~
4. ~~Chain drive~~
5. ~~Gear drive~~
6. ~~Inspection~~
7. ~~Lubrication~~
8. ~~Operational test~~
9. ~~Scheduled maintenance~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:17 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8025

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:04 pm

Viewing: **HMTD 2204 : Powertrain 8 Drive-Axle**

Systems

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:33 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Powertrain 8 Drive-Axle Systems

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:17 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:16 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:01 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

²⁷³
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Powertrain 8** ~~Drive-Axle Systems~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2204

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Return to Service: Inspection and Run-up. This course introduces **the** students to **start and run-up procedures, monitoring, diagnostics, and inspection before placing unit into service.** ~~drive-axle systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Perform initial start and run-up procedures. Describe drive axles.
CLO #2	Monitor unit operation after initial start-up. Service drive axles.
CLO #3	Diagnose and repair faults before placing unit into service.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Initial start and run-up procedures.
2. Unit operation after initial start-up.
3. Diagnosis and repair of faults before placing unit into service. ~~Single axle~~
- ~~2.Tandem axle~~
- ~~3.Tridem axle~~
- ~~4.Multi speed~~
- ~~5.Differentials~~
- ~~6.Axles shafts~~
- ~~7.Traction devices~~
- ~~8.Inter axle differentials~~
- ~~9.Controls and circuits~~
- ~~10.Mounting~~
- ~~11.Basic operation~~
- ~~12.Lubrication~~
- ~~13.Service~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:17 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:01 pm): Rollback: Rollback requested by developer for editing.

Key: 8033

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:10 pm

Viewing: **HMTD 2205 : Electrical Advanced**

~~Starting~~ Systems 8

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:34 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Advanced ~~Starting~~ Systems 8

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:17 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:17 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

278
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Electrical** ~~Advanced Starting~~ Systems 8

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2205

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Starting Systems 2: Diagnose and Repair. This course introduces students to starting systems circuit and component diagnosis and repair. ~~This course builds on the topics explored in basic starting systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Review starting systems and components. Identify starting system components
CLO #2	Perform inspection of starting system. Describe the design and operation of starting systems.
CLO #3	Diagnose and repair starting systems and their components.
CLO #3	Diagnose and repair starting systems and related components.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Course Topics

Course Topics:

1. Starting systems and components.
2. Inspection of starting systems.
3. Diagnosis and repair of starting systems and related components. Components
2. Operation
3. Motor
4. Drives
5. Solenoids
6. Armature
7. Windings
8. Brushes
9. Inspection
10. Operation
11. Testing
12. Diagnosis
14. Repair

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:17 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Key: 8034

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:16 pm

Viewing: **HMTD 2206 : Electrical Advanced**

Charging-Systems 9

Last approved: 07/04/18 5:00 am

Last edit: 12/20/18 2:34 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Advanced Charging-Systems 9

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:17 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:17 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

283
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Electrical ~~Advanced Charging~~ Systems 9**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2206

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Charging Systems 2: Diagnose and Repair. This course introduces students to charging systems circuit and component diagnosis and repair. ~~This course builds on the topics explored in basic charging systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Review Describe -charging systems and system -components.
CLO #2	Perform inspection of charging system. Describe the design and operation of charging systems.
CLO #3	Diagnose Perform inspection, diagnosis and repair of -charging systems and related components. systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	50 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Charging systems and components.**
2. **Inspection of charging systems.**
3. **Diagnosis and repair of charging systems and related components.** **Components**
 2. **Operation**
 3. **Alternators**
 4. **Regulators**
 5. **Field Circuits**
 6. **Drive**
 7. **Cooling**
 8. **Inspection**
 9. **Testing**
 10. **Diagnosis**
 11. **Repair**

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:17 pm): Rollback: revisions not complete

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Key: 8035

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:23 pm

Viewing: **HMTD 2207 : Electrical Systems 10**

Diagnosis

Last approved: 07/04/18 4:58 am

Last edit: 12/20/18 2:35 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electrical Systems **10** ~~Diagnosis~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/14/18 2:17 pm
Nicole Degagne
(ndegagne):
Rollback to Initiator
2. 11/15/18 10:22 am
Richard Cyr (rcyr):
Approved for 4305
Leader
3. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
4. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
5. 12/05/18 1:31 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

288
7. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie
Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Electrical Systems **10** ~~Diagnosis-~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2207

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Advanced Truck and Machine Electrical: Diagnose and Repair. This course introduces students to **advanced** electrical systems **and component diagnosis.** ~~diagnosis-~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning
Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Identify electrical components.
CLO #1 #2	Review Identify electrical components and systems.
CLO #2 #3	Perform rapid vehicle assessment. Diagnose components and systems
CLO #3	Diagnose electrical components and systems.
CLO #4	Repair electrical components and systems.

Instructional
Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Electrical components and systems.**
2. **Rapid vehicle assessment.**
3. **Diagnosis of electrical components and systems.**
4. **Repair of electrical components and systems. Components**
- ~~2. Operation~~
- ~~3. Sensory inspection~~
- ~~4. Diagnostic tools~~
- ~~5. Test procedure~~
- ~~6. Wiring schematics~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

additional
information?

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting

documentation:

Reviewer

Comments

Nicole Degagne (ndegagne) (11/14/18 2:17 pm): Rollback: revisions not complete

Richard Cyr (rcyr) (11/15/18 10:21 am): Course name is " Electrical Systems 11- Advanced Truck and Machine Electrical: Diagnosis and Repair"

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Key: 8037

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:26 pm

Viewing: **HMTD 2208 : Electronic Electrical**

Systems 1 Repair

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:35 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electronic Electrical Systems **1 Repair**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/15/18 10:24 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 12/05/18 1:30 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
5. 12/05/18 2:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
6. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Electronic Electrical** Systems 1 ~~Repair~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2208

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Truck and Machine Electronic Control Systems: Theory. This course introduces students to **electronic control systems.** ~~electrical systems and component repair.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will be able to:

CLO #1	Describe differences between electrical and electronics. Repair electrical systems.
CLO #2	Describe electronic systems and components. Repair electrical components.
CLO #3	Describe CAN data bus networks.
CLO #4	Perform basic data communication.
CLO #5	Use computers/ laptops, scanners, and scopes to scan, scope, and data log-on board computer systems and sensors on various trucks and equipment.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	70 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	30 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

17.5

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

7.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Differences between electrical and electronics.**
2. **Electronic systems and components.**
3. **CAN data bus networks.**
4. **Basic data communication.**
5. **Computer systems and sensors on various trucks and equipment. Repair connections**
- ~~2. Replace components~~
- ~~3. Splice~~
- ~~4. Solder~~
- ~~5. Crimp~~
- ~~6. Connection sealants~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Richard Cyr (rcyr) (11/15/18 10:23 am): course name is "Electronic Systems 1- Truck and Machine Electronic Control Systems: Theory and Operation"

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Key: 8036

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:34 pm

Viewing: **HMTD 2209 : Electronic Systems 2**

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:36 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electronic Systems **2**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/15/18 10:25 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 12/05/18 1:30 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
5. 12/05/18 2:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
6. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Electronic Systems **2**
Name:

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2209

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Truck and Machine Electronic Components: Diagnose and Repair. This course introduces students to electronic **component diagnosis and repair.** ~~systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will be able to:

CLO #1	Review then perform data communication. Identify electronic components.
CLO #2	Review then use computers/ laptop, modis, etc. to scan, scope, and data log-on board computer systems and sensors. Identify electronic systems.
CLO #3	Diagnose and repair electronic systems and components.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. LEDs
2. Actuators
3. Circuit board
4. Multi-function controls
5. Data communication.
2. links
6. Scan, scope, and data log-on board computer systems and sensors.
3. Diagnosis and repair of electronic systems and components. Communication plug
7. Sensors
8. Electronic Control Module (ECM)
9. Termination resistors
10. CAN data bus
11. J1587
12. J1708
13. J1939
14. Supplemental restraint systems
15. GPS

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Richard Cyr (rcyr) (11/15/18 10:24 am): course name is "Electronic Systems 2- Truck and Machine Electronic Components: Diagnosis and Repair"

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Key: 8038

[Preview Bridge](#)

Course Change Request

Date Submitted: 12/05/18 1:37 pm

Viewing: **HMTD 2210 : Electronic Systems 3**

~~Component Diagnosis~~

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:38 pm

Changes proposed by: rcyr

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Electronic **Systems 3** ~~Component Diagnosis~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Banner

Approval Path

1. 11/15/18 10:27 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 11/28/18 11:07 am
Nicole Degagne
(ndegagne):
Rollback to Initiator
5. 12/05/18 1:38 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
6. 12/05/18 2:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean

7. 12/20/18 3:02 pm
 Todd Rowlatt
 (trowlatt): Approved
 for Curriculum
 Committee Chair

History

1. Jul 4, 2018 by Carlie
 Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: Electronic **Systems 3** ~~Component Diagnosis-~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2210

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Truck and Machine Management Systems: Theory, Diagnose, Repair. This course introduces students to **vehicle management systems.** ~~electronic component diagnosis-~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

CLO #1	Describe vehicle management systems. Diagnose electronic systems and components.
CLO #2	Diagnose and repair vehicle management systems. Repair electronic systems and components.
CLO #3	Perform advanced diagnostics on truck and machine control systems (Cab control module, traction and stability control, ABS, transmission control, HVAC module etc.).

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Vehicle management systems.**
2. **Diagnosis and repair of vehicle management systems.**
3. **Advanced diagnostics on truck and machine control systems (Cab control module, traction and stability control, ABS, transmission control, HVAC module, etc.).** ~~Diagnostic tools~~
- ~~2.OEM test procedure~~
- ~~3.Sensory inspection~~
- ~~4.Schematics~~
- ~~5.Components replacement~~
- ~~6.Electrostatic discharge~~
- ~~7.Calibration~~
- ~~8.Reprograming~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Richard Cyr (rcyr) (11/15/18 10:27 am): course name is "Electronic Systems 3- Truck and Machine Management Systems: Theory, Diagnose, and Repair"

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Nicole Degagne (ndegagne) (11/28/18 11:07 am): Rollback: for further review

Key: 8040

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:40 pm

Viewing: **HMTD 2211 : Gas Fueled Auto Mngt Sys**

1 ~~Vehicle Management Systems~~

Last approved: 07/04/18 5:01 am

Last edit: 12/20/18 2:39 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Gasoline Fueled (Automotive) Engine ~~Vehicle~~-Management Systems **1**

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/15/18 10:29 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 12/05/18 1:30 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
5. 12/05/18 2:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
6. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Gas Fueled Auto Mngt Sys 1** ~~Vehicle Management Systems~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2211

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Engine, Fuel, and Ignition. This course introduces students to **gasoline fueled engine Ignition and fuel** ~~vehicle~~-management systems.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

	Upon successful completion of this course, students will be able to:
CLO #1	Describe the characteristics of gasoline. Describe a vehicle management systems.

Upon successful completion of this course, students will be able to:

CLO #2	Describe gasoline fuel injection systems. Diagnose and repair vehicle management systems.
CLO #3	Service gasoline fuel injection systems.
CLO #4	Describe the design and operation of electronic ignition systems.
CLO #5	Service electronic ignition systems.
CLO #6	Read and interpret generic fault codes.
CLO #7	Diagnose and repair electronic ignition and fuel management systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative – theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Characteristics of gasoline.**
 2. **Gasoline fuel injection systems.**
 3. **Servicing gasoline fuel injection systems.**
 4. **Electronic ignition systems.**
 5. **Servicing electronic ignition systems.**
 6. **Generic fault codes.**
 7. **Diagnosis and repair of electronic ignition and fuel management systems. ~~Dash-displays~~**
2. ~~Electronic Control Module (ECM)~~
 3. ~~Satellite tracking~~
 4. ~~Multiplexing~~
 5. ~~CAN data bus~~
 6. ~~Diagnostic procedures~~
 7. ~~Interpret test results~~
 8. ~~Test equipment~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Richard Cyr (rcyr) (11/15/18 10:29 am): course name is "Gasoline Fueled (automotive) Engine Management Systems 1- Engine Fuel and Ignition Management Systems "

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Key: 8039

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:41 pm

Viewing: **HMTD 2212 : Gas Fueled Auto Mngt Sys**

2 Gasoline Fuel Systems

Last approved: 07/04/18 4:59 am

Last edit: 12/20/18 2:40 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Gasoline **Fueled (Automotive) Engine Management Fuel**Systems 2

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/15/18 10:52 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:02 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 12/05/18 1:30 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
5. 12/05/18 2:03 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
6. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Gas Fueled Auto Mngt Sys 2** ~~Gasoline-Fuel~~
Systems

Subject Code: HMTD - Heavy Mechanical Technician

Course Number 2212

Year of Study **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

Vehicle Electronic Systems. This course introduces students to **automotive or light duty vehicle electronic control** ~~gasoline-fuel~~ systems.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning

Outcomes (CLO):

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will be able to:

CLO #1	Describe automobile control systems including body control, HVAC, transmission, ABS, traction and stability control, SRS/Airbags etc. Describe the characteristics of gasoline.
CLO #2	Describe automotive communication protocols (OBD2, J1850 etc.). Describe gasoline fuel injection systems.
CLO #3	Perform advanced diagnostics on automobile control systems (body control module, traction and stability control, ABS, transmission control, HVAC module etc.). Service gasoline fuel injection systems.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative—theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative—theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,

Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Automobile control systems including body control, HVAC, transmission, ABS, traction and stability control, SRS/Airbags, etc.**
2. **Automotive communication protocols (OBD2, J1850 etc.).**
3. **Advanced diagnostics on automobile control systems (body control module, traction and stability control, ABS, transmission control, HVAC module, etc.).** ~~Physical properties of gasoline~~
 2. ~~Heat value~~
 3. ~~Octane~~
 4. ~~Throttle body injection~~
 5. ~~Port injection~~
 6. ~~Direct injection~~
 7. ~~Inspection~~
 8. ~~Scheduled maintenance~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Richard Cyr (rcyr) (11/15/18 10:30 am): course name is "Gasoline Fueled Engine (automotive) Management Systems 2- Vehicle Electronic Control Systems"

Carlie Deans (cdeans) (11/26/18 1:02 pm): Rollback: Rollback requested by developer for editing.

Key: 8041

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:42 pm

Viewing: **HMTD 2213 : Shop Simulation 2**

~~Gasoline Ignition Systems~~

Last approved: 07/05/18 4:57 am

Last edit: 12/19/18 12:15 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Shop Simulation 2 ~~Gasoline Ignition Systems~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/15/18 10:54 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:03 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 12/03/18 1:42 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
5. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
6. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved

History

1. Jul 5, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Shop Simulation 2** ~~Gasoline Ignition Systems~~

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2213

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

This course **allows** ~~introduces~~ students to **work in a simulated work environment.** ~~gasoline ignition systems.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will be able to:

CLO #1	Populate real-time work orders and job time expectations. Describe the design and operation of electronic ignition systems
CLO #2	Clock in and out on jobs and breaks. Service electronic ignition systems
CLO #3	Perform pre-lunch and end of shift cleanup. Diagnose electronic ignition systems
CLO #4	Repair electronic ignition systems
CLO #4	Review parts order process.
CLO #5	Prepare parts requisitions.
CLO #6	Complete mechanics "work performed descriptions" on work orders.
CLO #7	Review business profit and costs per work order (business overhead, labour cost, charge-out rate, and cost of "come-backs").

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative-theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative-theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.

Type	Percentage	Brief description of assessment activity
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. Real-time work orders and job time expectations.
2. Clocking in and out on jobs and breaks.
3. Pre-lunch and end of shift cleanup.
4. Parts order process.
5. Parts requisitions.
6. "Work performed descriptions" on work orders.
7. Business profit and costs per work order (business overhead, labour cost, charge-out rate, and cost of "come-backs"). ~~Primary and secondary circuit~~
- ~~2. Timing~~
- ~~3. Ignition switch and wiring~~
- ~~4. Trigger device(s)~~
- ~~5. Sensors~~
- ~~6. Distributor types~~
- ~~7. Distributorless ignition~~
- ~~8. Direct ignition~~
- ~~9. Ignition coils~~
- ~~10. Inspection~~
- ~~11. Diagnostics~~
- ~~12. Repair~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Provide a rationale
for this proposal:

Are there any

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer

Comments

Carlie Deans (cdeans) (11/26/18 1:03 pm): Rollback: Rollback requested by developer for editing.

Key: 8043

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:43 pm

Viewing: **HMTD 2214 : Shop Simulation 3**

~~Business and Communications 1~~

Last approved: 07/04/18 4:59 am

Last edit: 12/19/18 12:16 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Shop Simulation 3 ~~Business and Communications 1~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/15/18 10:54 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:03 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 12/03/18 1:43 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
5. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
6. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved

323
for Curriculum
Committee Chair

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Shop Simulation 3 Business and Communications 1**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2214

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

This course allows students to work in a simulated work environment. ~~This course introduces students to areas and types of vehicles and equipment maintained and repaired, business types, business relationships, government relationships, labour relationships, and employee attributes.~~

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will be able to:

CLO #1	Populate and prioritize real-time work orders and job time expectations. Describe the areas and types of vehicles and equipment maintained and repaired
CLO #2	Clock in and out on jobs and breaks. Describe the current heavy mechanics trade
CLO #3	Perform pre-lunch and end of shift cleanup. Describe the range of working conditions
CLO #4	Use parts order process. Describe types of businesses
CLO #5	Prepare parts requisitions. Describe labour groups
CLO #6	Complete mechanics "work performed descriptions" on work orders. Describe legislation affecting employment
CLO #7	Apply business profit and costs of work order for complete week (business overhead, labour cost, charge-out rate, and cost of "come-backs"). Describe positive employee attributes

Instructional Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System: Percentages
70%

Passing grade:

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	30 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative-theory)
Other Exam	70 20	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment. Theory exam (summative-theory)
Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Exam	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

7.5 ~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

17.5 ~~7.5~~

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Real-time work orders** ~~Areas~~ and **job time expectations.**
2. ~~types of vehicles and equipment maintained and repaired~~
- ~~2.~~ **Clocking in and out on jobs and breaks.**
3. **Pre-lunch and end of shift cleanup.**
4. **Parts order process.**
5. **Parts requisitions.**
6. **"Work performed descriptions" on work orders.**
7. **Business profit and costs of work order for complete week (business overhead, labour cost, charge-out rate, and cost of "come-backs").** ~~The current heavy mechanics trade~~
- ~~3.~~ ~~Range of working conditions~~
- ~~4.~~ ~~Types of businesses~~
- ~~5.~~ ~~Labour groups~~
- ~~6.~~ ~~Legislation affecting employment~~
- ~~7.~~ ~~Positive employee attributes~~

Rationale and Consultations

You only have to complete the Rationale and Consultations section once for a group of related proposals (i.e. a number of changes to a PCG and multiple courses). Is this proposal part of a group of related proposals?

Yes

Is this the primary proposal?

No

Primary Proposal

Heavy Mechanical Technology PCG

Additional Information

Provide any additional information if necessary.

Changes have been made from original approved program which includes changes to course titles, course descriptions, time allocations, grading and evaluation descriptions and amounts, and course order (Proposal was originally put through before space and training aids were known/allocated. Training space and training aids are now known which influenced original proposed course delivery) We also added three shop simulation weeks to better align with international student integration into employment.

Supporting
documentation:

Reviewer
Comments

Carlie Deans (cdeans) (11/26/18 1:03 pm): Rollback: Rollback requested by developer for editing.

Key: 8042

[Preview Bridge](#)

Course Change Request

Date Submitted: 11/27/18 5:51 pm

Viewing: **HMTD 2215 : Employment Skills**

~~Business and Communications 2~~

Last approved: 07/04/18 4:59 am

Last edit: 12/19/18 12:17 pm

Changes proposed by: mwheatley

Programs
referencing this
course

[112: Heavy Mechanical Technology Diploma \(International Cohort\)](#)

Course Name:

Employment Skills ~~Business and Communications 2~~

Effective Date: May 2019

School/Centre: Trades, Technology & Design

Department: Heavy Mechanical Technology Diploma
International(4305)

Contact(s)

In Workflow

1. **4305 Leader**
2. **CTT Dean**
3. **Curriculum
Committee Chair**
4. **EDCO Chair**
5. Records
6. Banner

Approval Path

1. 11/15/18 10:55 am
Richard Cyr (rcyr):
Approved for 4305
Leader
2. 11/15/18 11:38 am
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
3. 11/26/18 1:03 pm
Carlie Deans
(cdeans): Rollback
to Initiator
4. 12/03/18 1:43 pm
Richard Cyr (rcyr):
Approved for 4305
Leader
5. 12/03/18 3:04 pm
Brett Griffiths
(bgriffiths):
Approved for CTT
Dean
6. 12/20/18 3:02 pm
Todd Rowlatt
(trowlatt): Approved

History

1. Jul 4, 2018 by Carlie Deans (cdeans)

Name	E-mail	Phone/Ext.
Rick Cyr -	rcyr@vcc.ca -	778-331-1320 -

Banner Course Name: **Employment Skills Business and Communications-2**

Subject Code: HMTD - Heavy Mechanical Technician

Course Number: 2215

Year of Study: **2nd** ~~1st~~ Year Post-secondary

Credits: 1

Course Description:

This course builds on topics explored in **workplace skills 1 and 2 Business** and **prepares the learner to enter the workforce by identifying employment opportunities, updating a Communications 1 and include employer responsibilities,** resume and **cover letter, job search resources** and preparing for **and following up on** an interview.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

Upon successful completion of this course, students will be able to:	
CLO #1	Identify job postings for job search sources. Describe employer responsibility
CLO #2	Review/update and apply resumes to match job postings. Prepare a resume
CLO #3	Review/update and apply cover letters to match job postings. Prepare a cover letter
CLO #4	Prepare for and apply interview skills to match job postings. Identify job search sources
CLO #5	Perform job interview. Prepare for an interview
CLO #6	Follow up and report on job an -interview results.

Instructional

Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System:

Percentages

Passing grade:

70%

Evaluation Plan:

Type	Percentage	Brief description of assessment activity
Other Assignments	50 25	Theory- includes formative assessments, assignments, and a summative assessment. Quizzes and Assignments (formative – theory)
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Assignments	30	Ongoing observations of workplace behavior and use of tools and equipment.
Participation	25	Observable active participation and team work

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

~~17.5~~

Lab, Clinical, Shop, Kitchen,
Studio, Simulation

12.5 7-5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:

1. **Job postings for job search sources.**
2. **Resumes to match job postings.**
3. **Cover letters to match job postings.**
4. **Interview skills to match job postings.**
5. **Job interviews. Employer responsibilities**

~~2. Resumes~~~~3. Cover letters~~~~4. Jobs search~~~~5. Interviews~~

Rationale and Consultations

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Heavy Mechanical Technology PCG

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Supporting
documentation:

Reviewer
Comments

Carlie Deans (cdeans) (11/26/18 1:03 pm): Rollback: Rollback requested by developer for editing.

Key: 8044

[Preview Bridge](#)