Miami Dade College

<table>
<tr><td colspan="5" align="center">AA Course Sequence Guide - Full-Time Enrollment
Engineering - Industrial Pathway
Associate in Arts Degree | Code: (10912) | 60 Credits
Effective Term: Fall 2024 (2247)</td></tr>
<tr><th>SEMESTER</th><th>Course ID</th><th>Course Title</th><th>Credits</th><th>Pre/Corequisites</th></tr>
<tr><td rowspan="6">Semester 1</td><td>ENC 1101 (W)</td><td>English Composition 1</td><td>3</td><td>Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).</td></tr>
<tr><td>EGN 1008C</td><td>Introduction to Engineering</td><td>3</td><td></td></tr>
<tr><td><i>Humanities</i></td><td>ARH 1000, HUM 1020, LIT 2000 (W), MUL 1010, PHI 2010 (W), THE 2000 (W)</td><td>3</td><td>Prerequisite for LIT 2000: ENC 1101</td></tr>
<tr><td>MAC 1105 (C)</td><td>College Algebra</td><td>3</td><td>Prerequisite: MAT 1033♦
♦Students must seek advisement for proper mathematics course from discipline chairperson.</td></tr>
<tr><td>SLS 1106</td><td>First Year Experience Seminar</td><td>1</td><td></td></tr>
<tr><td colspan="2" align="center">TOTAL CREDITS</td><td>13</td><td></td></tr>
<tr><td rowspan="7">Semester 2</td><td>ENC 1102 (W)</td><td>English Composition 2</td><td>3</td><td>Prerequisite: ENC 1101</td></tr>
<tr><td><i>Social Sciences</i></td><td>AMH 2010, AMH 2020, POS 2041</td><td>3</td><td></td></tr>
<tr><td><i>Computer Competency</i></td><td>Computer Skills Placement (CSP)
---or---
CGS 1060C</td><td></td><td>Departmental Recommendation: Computer Skills Placement (CSP)</td></tr>
<tr><td>CHM 1045</td><td>General Chemistry and Qualitative Analysis</td><td>3</td><td>Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105
Corequisite: CHM 1045L</td></tr>
<tr><td>CHM 1045L</td><td>General Chemistry and Qualitative Analysis Lab</td><td>2</td><td>Prerequisite: CHM 1025 or passing score on CART exam, MAC 1105
Corequisite: CHM 1045</td></tr>
<tr><td>MAC 1140 (C)</td><td>Pre-Calculus Algebra</td><td>3</td><td>Prerequisite: MAC 1105</td></tr>
<tr><td colspan="2" align="center">TOTAL CREDITS</td><td>14</td><td></td></tr>
<tr><td rowspan="2">Semester 3</td><td>MAC 1114 (C)</td><td>Trigonometry</td><td>3</td><td>Prerequisite: MAC 1105 or MAC 1106</td></tr>
<tr><td colspan="2" align="center">TOTAL SUMMER CREDITS</td><td>3</td><td></td></tr>
<tr><td rowspan="5">Semester 4</td><td>MAC 2311 (C)</td><td>Calculus and Analytical Geometry 1</td><td>5</td><td>Prerequisite: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147</td></tr>
<tr><td><i>Social Sciences</i></td><td>AMH 2010, AMH 2020, ANT 2000, ANT 2410, CLP 1006, DEP 2000, ECO 2013 (W), ISS 1120, ISS 1161, POS 2041, PSY 2012, SYG 2000, WOH 2012, WOH 2022</td><td>3</td><td>Note: Check with an MDC advisor for requisite information.</td></tr>
<tr><td><i>Oral Communication</i></td><td>ENC 2300 (W), LIT 2480 (W), SPC 1017 (W), SPC 2608 (W)</td><td>3</td><td>Prerequisite for ENC 2300: ENC 1101, ENC 1102
Prerequisite for LIT 2480: ENC 1102
Prerequisite for SPC 2608: ENC 0025</td></tr>
<tr><td>PHY 1025</td><td>Basic Physics</td><td>3</td><td>Prerequisite: MAC 1105</td></tr>
<tr><td colspan="2" align="center">TOTAL CREDITS</td><td>14</td><td></td></tr>
<tr><td>Semester 5</td><td><i>Humanities</i></td><td>ARC 2701, ARC 2702 (W), ARH 1000, ARH 2050, ARH 2051</td><td>3</td><td>Note: Check with an MDC advisor for requisite information.</td></tr>
</table>

Notes: W = Writing Intensive Course
C = Computational Course

		(W), ARH 2740 (W), DAN 2100, DAN 2130 (W), HUM 1020, IND 1100, IND 1130 (W), LIT 2000 (W), LIT 2120 (W), MUH 2111, MUH 2112 (W), MUL 1010, MUL 2380 (W), PHI 2010 (W), PHI 2600 (W), THE 2000 (W)		
	MAC 2312 (C)	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
	PHY 2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311 Corequisite: PHY 2048L
	PHY 2048L	Physics with Calculus 1 Lab	1	Prerequisites: MAC 2311 and High School Physics or PHY 1025 or PHY 2053 and PHY 2053L or Departmental Approval Corequisite: PHY 2048
		TOTAL CREDITS	**12**	
Semester 6	MAC 2313 (C)	Calculus and Analytical Geometry 3	4	Prerequisite: MAC 2312
		TOTAL CREDITS	**4**	
		PROGRAM TOTAL	**60**	

ADDITIONAL COMMON PREREQUISITES			
Course ID	**Course Title**	**Credits**	**Pre/Corequisites**
MAP 2302 (C)	Differential Equations	3	Prerequisite: MAC 2312
PHY 2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L Corequisites: PHY 2049L and MAC 2312
PHY 2049L	Physics with Calculus 2 Lab	1	Prerequisite: PHY 2048 and PHY 2048L Corequisites: PHY 2049 and MAC 2312

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AA Course Sequence Guide - Part-Time Enrollment Engineering - Industrial Pathway Associate in Arts Degree | Code: (10912) | 60 Credits Effective Term: Fall 2024 (2247)				
SEMESTER	**Course ID**	**Course Title**	**Credits**	**Pre/Co-Requisites**
Semester 1	ENC 1101 (W)	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
	EGN 1008C	Introduction to Engineering	3	
	MAC 1105 (C)	College Algebra	3	Prerequisite: MAT 1033♦ ♦Students must seek advisement for proper mathematics course from discipline chairperson.
	TOTAL CREDITS		**9**	
Semester 2	MAC 1140 (C)	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
	CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisites: MAC 1105; CHM 1025 or a passing score on the CART exam Corequisite: CHM 1045L
	CHM 1045L	General Chemistry and Qualitative Analysis Lab	2	Prerequisites: MAC 1105; CHM 1025 or a passing score on the CART exam Corequisites: CHM 1045
	Computer Competency	Computer Skills Placement (CSP) ---*or*--- CGS 1060C		**Departmental Recommendation**: Computer Skills Placement (CSP)
	SLS 1106	First Year Experience Seminar	1	
	TOTAL CREDITS		**9**	
Semester 3	ENC 1102 (W)	English Composition 2	3	Prerequisite: ENC 1101
	Social Sciences	AMH 2010, AMH 2020, POS 2041	3	
	MAC 1114 (C)	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
	TOTAL SUMMER CREDITS		**9**	
Semester 4	MAC 2311 (C)	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
	Humanities	ARH 1000, HUM 1020, LIT 2000 (W), MUL 1010, PHI 2010 (W), THE 2000 (W)	3	Prerequisite for LIT 2000: ENC 1101
	TOTAL CREDITS		**8**	
Semester 5	MAC 2312 (C)	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
	Oral Communication	ENC 2300 (W), LIT 2480 (W), SPC 1017 (W), SPC 2608 (W)	3	Prerequisite for ENC 2300: ENC 1101, ENC 1102 Prerequisite for LIT 2480: ENC 1102 Prerequisite for SPC 2608: ENC 0025
	PHY 1025	Basic Physics	3	Prerequisite: MAC 1105
	TOTAL CREDITS		**10**	
Semester 6	*Humanities*	ARC 2701, ARC 2702 (W), ARH 1000, ARH 2050, ARH 2051 (W), ARH 2740 (W), DAN 2100, DAN 2130 (W), HUM 1020, IND 1100, IND 1130 (W), LIT 2000	3	**Note:** Check with an MDC advisor for requisite information.

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		(W), LIT 2120 (W), MUH 2111, MUH 2112 (W), MUL 1010, MUL 2380 (W), PHI 2010 (W), PHI 2600 (W), THE 2000 (W)		
	Social Sciences	AMH 2010, AMH 2020, ANT 2000, ANT 2410, CLP 1006, DEP 2000, ECO 2013 (W), ISS 1120, ISS 1161, POS 2041, PSY 2012, SYG 2000, WOH 2012, WOH 2022	3	**Note:** Check with an MDC advisor for requisite information.
	TOTAL SUMMER CREDITS		6	
Semester 7	MAC 2313 (C)	Calculus and Analytical Geometry 3	4	Prerequisite: MAC 2312
	PHY 2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311 Corequisite: PHY 2048L
	PHY 2048L	Physics with Calculus 1 Lab	1	Prerequisites: MAC 2311 and High School Physics or PHY 1025 or PHY 2053 and PHY 2053L or Departmental Approval Corequisite: PHY 2048
	TOTAL CREDITS		9	
	PROGRAM TOTAL		60	

Please Note: Students are strongly encouraged to select required lower division electives that will enhance their general education coursework and that will support their intended baccalaureate degree program. Students should consult with an academic advisor in their major degree area.

ADDITIONAL COMMON PREREQUISITES			
Course ID	**Course Title**	**Credits**	**Pre/Corequisites**
MAP 2302 (C)	Differential Equations	3	Prerequisite: MAC 2312
PHY 2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L Corequisites: PHY 2049L and MAC 2312
PHY 2049L	Physics with Calculus 2 Lab	1	Prerequisite: PHY 2048 and PHY 2048L Corequisites: PHY 2049 and MAC 2312

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