EXHIBIT A-2 – Integrated Science
ARTICULATION GUIDE

North Central Michigan College: Associate of Arts: Secondary Teacher Education (Integrated Science)	**UM-Dearborn: Bachelor of Arts (BA) in Secondary Education**

North Central Michigan College - Before Transfer	
Major Requirements	**Minimum 60 Hrs**
ENG 111: English Composition I	3
ENG 112: English Composition II	3
COM 111 or 170: Public Speaking or Interpersonal Communications	3
MTA Math	4
Humanities: ENG 240: Intro to Children's Literature	3
Humanities: MU 120: History of Music	3
Humanities: General Education Humanities (from at least two categories)	3
MTA SCIENCE: Recommend BIO 151: General Biology I	4
MTA SCIENCE: Recommend CEM 121: Principles of Chemistry I	5
Social Science: PSY 255: Child Psychology	3
Social Science: Recommend PLS 141: Intro to American Government	3
Social Science: GEO 111: Environmental Geography	3
Secondary Education Requirements	
ED 101: Introduction to Teaching	3
ED 201: Diversity, Equity and Inclusion in Education	3
Courses which meet 7-12 Integrated Science	
BIO 152: General Biology II	4
PHY 210: General Physics I	5
CEM 122: Principles of Chemistry II	5
ESC 121: Physical Geology	4
PHY 211: General Physics II	5
PHY 201: Foundations of Astronomy	4
Notes	Variable
	Variable

UM-Dearborn Coursework - After Transfer:	
Major Requirements	41
EDA 200: Community Based Education (waived)	-
EDT 216: Learning Technologies (waived)	-
EDC 300: Educational Psychology	3
EDC 305: Adolescent Development	3
EDC 431: Constructivist Education	3
EDC 439: Child Maltreatment and Trauma	3
EDC 417: Classroom Management	3
EDC 460: Educating the Exceptional Child	3
PDED 405: SpEd Law	3
EDD 469: Reading in the Content Areas	3
EDD 449: Teaching English as a Second Language	3
EDFP 401: Apprenticeship I: ESL	3
EDT 317: Learning Technologies in Content Areas	1
EDD 488: Secondary Science Methods	3
EDFP 488: Apprenticeship II: Secondary Science	3
EDT 418: Learning Technologies in the Classroom	1
Student Teaching Internship	
EDFP 421: Internship: Secondary School	10
EDD 424: Seminar: Teaching Secondary Grades	2
7-12 Grade Band Requirements	
EXPS 400: STEM Teaching and Learning	3
North Central Michigan College Credits =	**Minimum credits at UM-Dearborn**
Minimum credits for Bachelor of Arts in Secondary Education - 120 credit hours	

Important Information:

1. All content is for informational purposes and is designed to be used as a tool to assist students with transfer information but should not be used for self-advising.
2. When pursuing a North Central Michigan College degree work closely with a NCMC and University of Michigan-Dearborn advisor to ensure BOTH the NCMC and UM-Dearborn degree requirements are being met.
3. A minimum cumulative 2.75 GPA or better is required for admission.
4. North Central Michigan College and UM-Dearborn reserve the right to make any necessary changes to courses, provisions, or transfer requirements without notice.
5. It is the responsibility of the student to be aware of changes that affect their transfer program. Students are strongly encouraged to contact UM-Dearborn's College of Education, Health, and Human Services on an annual basis to review their program requirements.
6. UM-Dearborn accepts credits earned and awarded by North Central Michigan College for high school/dual enrollment/CTE agreements. The course(s) must appear on the North Central Michigan College transcript as earned credit, with a letter grade of "C" or higher, to be transferable to UM-Dearborn.
7. Please contact UM-Dearborn at 313-593-5090 to schedule an advising appointment, or to view additional information visit: www.umdearborn.edu/cehhs

NCMC Course	Credit	UM-Dearborn Course	Credit
ENG 111: English Composition I	3	COMP 105	3
ENG 112: English Composition II	3	COMP 106 (meets EXPS 298)	3
COM 111 or 170	3	SPEE 101 or SPEE 310	3
MTA Math	4	MTA Math Course	4
MTA Humanities	3	MTA Humanities Course	3
MTA Humanities	3	MTA Humanities Course	3
Humanities	3	NCMC Humanities Course	3
MTA Social Science: PSY 255	3		
MTA Social Science: PLS 141	3		
Social Science: GEO 111	3	GEOG 111X (meets ESCI 370)	3
BIO 151: General Biology I	4	BIOL 140	4
CEM 121: Principles of Chemistry I	5	CHEM 134	5
BIO 152: General Biology II	4	BIOL 130	4
ED 101: Introduction to Teaching	3	EDA 306	3
ED 201: Diversity, Equity and Inclusion in Education	3	Meets EDM 450	3
CEM 122: Principles of Chemistry II	5	CHEM 136	5
ESC 121: Physical Geology	4	GEOL 118	4
PHY 201: Foundations of Astronomy	4	ASTR 130/131	4
PHY 210: General Physics I	5	PHYS 125	5
PHY 211: General Physics II	5	PHYS 126	5