

TRANSFER GUIDE: HARPER COLLEGE TO ILLINOIS INSTITUTE OF TECHNOLOGY

AAS in Advanced Manufacturing Technology-Metal Fabrication (AMT/METFAB) -to-BAC in Industrial Technology and Management (BINTM)

Harper College students can expand their career options and professional abilities by transferring into the Bachelor of Industrial Technology and Management (INTM) program at Illinois Tech. The INTM program is designed to broaden students' knowledge of how to manage operations, resources, and technology within an industrial organization. This transfer guide outlines curriculum for both programs and identifies how the Harper coursework aligns with admission requirements for the INTM degree. Courses must be graded 'C' or better in order to transfer, and a maximum of 68 hours can be accepted from a 2-year institution.

narper Alvi	T/METFAB Required Coursework	Transfers to Illinois Tech as
Communicati	ons: 2 courses (6 credits)	
ENG 101	Composition (3)	Communications/COM 101 (Writing Proficiency)
ENG 103	Technical & Report Writing - <u>or</u> - SPE 101 Fund of Speech (3)	ENG 103 may be applied as INTM 301 (IIT core)
Mathematics	: 1 course (3 credits)	
Choose MTH 101, MTH 103 or higher level math		MTH 097 non-transferable; take MTH 101, 103, 124, 134, 140 or 165
Social Science	e: 2 courses (6 credits)	
Electives	Two courses from Section C, IIT-Harper Transfer Credits	PSY or SOC, and ECO recommended
	https://web.iit.edu/ugaa/hc-industrial-technology-and-management	
Humanities:	1 course (3 credits)	
Elective	One course from Section B, IIT-Harper Transfer Credits	HUM, HST, LIT or PHI (not PHI 101 or 102). NOTE: this course
	https://web.iit.edu/ugaa/hc-industrial-technology-and-management	should satisfy Harper's World Cultures & Diversity Requirement
AMT/METFA	B Major/Technical Coursework: 14 courses (43 credits)	
MFT 102	Introduction to Manufacturing and Safety (4)	Technical coursework
	introduction to Manufacturing and Safety (4)	
MFT 102 MFT 104	Quality and Measurement (2)	Technical coursework
MFT 104	Quality and Measurement (2)	Technical coursework
MFT 104 MFT 108	Quality and Measurement (2) Manufacturing Processes (3)	Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2)	Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109 MFT 119	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2) Manufacturing Internship (2)	Technical coursework Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109 MFT 119 MFT 134	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2) Manufacturing Internship (2) Print Reading for Industry (3)	Technical coursework Technical coursework Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109 MFT 119 MFT 134 WLD 110	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2) Manufacturing Internship (2) Print Reading for Industry (3) Welding I (3)	Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109 MFT 119 MFT 134 WLD 110 WLD 210	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2) Manufacturing Internship (2) Print Reading for Industry (3) Welding I (3) Welding II (3)	Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109 MFT 119 MFT 134 WLD 110 WLD 210 WLD 211	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2) Manufacturing Internship (2) Print Reading for Industry (3) Welding I (3) Welding II (3) Welding III (4)	Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109 MFT 119 MFT 134 WLD 110 WLD 210 WLD 211 WLD 212	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2) Manufacturing Internship (2) Print Reading for Industry (3) Welding I (3) Welding II (3) Welding III (4) Welding IV (4)	Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework
MFT 104 MFT 108 MFT 109 MFT 119 MFT 134 WLD 110 WLD 210 WLD 211 WLD 212 WLD 240	Quality and Measurement (2) Manufacturing Processes (3) Introduction to Manufacturing Maintenance (2) Manufacturing Internship (2) Print Reading for Industry (3) Welding I (3) Welding II (3) Welding III (4) Welding IV (4) Cutting Processes (3)	Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework Technical coursework

Additional course(s)* required for transfer to IIT: 5-6 courses (15-18 credits)

MATH (3): One Math course in addition to that taken above for General Education requirements; MTH 165 recommended.
 NATURAL SCIENCE/ENGINEERING (10): To meet IIT's Natural Science/Engineering requirements, a total of 3 courses must be completed, with 2 courses in a single field and the 3rd course in a separate field. Up to 6 credits may be in Drafting/Eng Graphics. AMT/METFAB students may take ELT 110 (4) and ELT 135 (2), plus a 4-credit course in BIO or CHM -or- 4 credits in CAD/Drafting.
 COMPUTER SCIENCE (2): Take ELT 140 (2) or CIS 101 or 106 (3)

*Equivalent coursework completed at another institution may satisfy this requirement. Students with college credit over and above that taken for Harper AAS in AMT/METFAB should consult with INTM at Illinois Tech before taking additional courses.

ILLINOIS INSTITUTE

INTM Admission Requirements: 60 credits	Satisfied by Harper AAS Coursework	
Technical Coursework: 31 credits	AMT/METFAB Major/Technical Courses	
Mathematics: 5-6 credits	Two MTH courses as identified above	
Natural Science/Engineering: 10-11 credits	ELT 110 and ELT 135, plus BIO or CHM or CAD/Eng. Graphics	
Computer Science: 3 credits	ELT 140 or CIS 101 or 106	
Humanities/Social Sciences: 9 credits	1 HUM (HST or HUM) and 2 SOC SCI (PSY, SOC or ECO)	

Illinois Tech/INTM Coursework

Core Curriculum: 45 credits

INTM 301 Communications for the Workplace (3)
INTM 315 Industrial Enterprises (3)
INTM 322 Industrial Project Management (3)
INTM 404 Marketing, Sales and Product Introduction (3)
INTM 408 Cost Management (3)
INTM 410 Operations Management (3)
INTM 425 Human Resource Management (3)
INTM 441 Supply Chain Management (3)
INTM 459 Issues in Industrial Sustainability (3)

INTM Technical and Specialization Electives (21 credits)

Select seven (7) courses from all electives listed below. Completing a specialization is optional. To complete a specialization, student must complete four (4) courses within an identified focus area. All courses below earn 3 credits.

<u>General Technical Electives</u> INTM 319 Electronics in Industry INTM 418 Industrial Risk Management

Specialization Electives

Construction	<u>Technolo</u>	gy (CT)

INTM 407 Construction TechnologyINTM 413 Contract Administration for Construction ProjectsINTM 415 Advanced Project ManagementINTM 417 Construction Estimating

Facilities Management (FM)

INTM 405 Maintenance Technology and Management

INTM 411 Functional Facilities Management

- INTM 413 Contract Administration for Construction Projects
- INTM 415 Advanced Project Management
- INTM 416 Integrated Facilities Management
- INTM 423 Sustainable Facilities Management

Industrial Sustainability (ST)

INTM 423 Sustainable Facilities OperationsINTM 460 Sustainability of Critical MaterialsINTM 461 Energy Options in IndustryINTM 462 Special Topics in Industry

Humanities (6 credits): Two (2) 300- or 400-level courses

Social Science (6 credits): Two (2) 300- or 400-level courses

(choose from HIST, HUM, PHIL or LIT)

(choose from PSYC, PS, SOC or ECON) Interprofessional Project (IPRO) (6 credits)

INTM 420 Applied Strategies for the Competitive Enterprise INTM 477 Entrepreneurship in Industry

Manufacturing Technology (MT)

INTM 406 Quality Control
INTM 434 Manufacturing 4.0
INTM 435 Performance Management for Food Operations
INTM 436 Lean Manufacturing
INTM 437 Smart Factory Automation
INTM 438 Advanced Metals Manufacturing I
INTM 446 Manufacturing and Logistics Info Systems
INTM 448 Agile Methodologies for New Product/Process Dev.

Supply Chain Management (SCM)

INTM 409 Inventory Control
INTM 427 E-Commerce in Marketing & Supply Chain Networks
INTM 430 Transportation
INTM 432 Sales and Operations Planning
INTM 442 Warehousing and Distribution
INTM 443 Purchasing
INTM 444 Export/Import
INTM 446 Manufacturing and Logistics Info Systems

TOTAL CREDITS TO BE COMPLETED AT ILLINOIS TECH**: 60-66

TOTAL CREDITS REQUIRED FOR BAC IN INDUSTRIAL TECHNOLOGY & MANAGEMENT: 126

OVERALL CREDITS REQUIRED**: 135-138 (Harper: 60>AAS + 15-18>GenEd + IIT: 60-66)

** Total credits required based on amount and makeup of transfer credit from Harper College; all courses must be graded "C" or better to transfer



FOR MORE INFORMATION...

HARPER COLLEGE

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AMT/METFAB Program Description: https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/index.php AMT/METFAB Curriculum: https://www.harpercollege.edu/catalog/current/programs/career-certificate/manufacturing_technology_697.php Harper College Online Application: https://www.harpercollege.edu/start/apply/index.php

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INTM Department Website: http://www.iit.edu/intm

 INTM Program Description: https://www.iit.edu/academics/programs/industrial-technology-and-management-bac

 INTM Admission and Transfer Guidelines: https://www.iit.edu/intm/student-resources/transfer

 IIT Scholarship Information: https://www.iit.edu/admissions-aid/tuition-and-aid

 IIT Online Application for Transfer Students: https://www.iit.edu/admissions-aid/tuition-and-aid