

TRANSFER GUIDE: HARPER COLLEGE TO ILLINOIS INSTITUTE OF TECHNOLOGY

AAS in Advanced Manufacturing Technology-Mechatronics/Automation (AMT/MECH) -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.

Harper AMT/MECH Required Coursework	Transfers to Illinois Tech as...
<p><u>Communications: 2 courses (6 credits)</u></p> <p>ENG 101 Composition (3) ENG 103 Technical & Report Writing -or- SPE 101 Fund of Speech (3)</p> <p><u>Mathematics: 1 course (3 credits)</u></p> <p>Choose MTH 101, MTH 103 or higher level math</p> <p><u>Social Science: 2 courses (6 credits)</u></p> <p><i>Electives</i> Two courses from Section C, IIT-Harper Transfer Credits https://web.iit.edu/ugaa/hc-industrial-technology-and-management</p> <p><u>Humanities: 1 course (3 credits)</u></p> <p><i>Elective</i> One course from Section B, IIT-Harper Transfer Credits https://web.iit.edu/ugaa/hc-industrial-technology-and-management</p> <p><u>AMT/MECH Major/Technical Coursework: 14 courses (38 credits)</u></p> <p>MFT 102 Introduction to Manufacturing and Safety (4) MFT 104 Quality and Measurement (2) MFT 108 Manufacturing Processes (3) MFT 109 Introduction to Manufacturing Maintenance (2) MFT 119 Manufacturing Internship (2) ELT 110 Introductory Electronics (4) ELT 120 Introductory Industrial Electronics Maintenance (2) ELT 135 Optics and Sensors (2) ELT 140 Introduction to Programmable Logic Controllers (2) ELT 143 Commercial Wiring (2) ELT 144 AC and DC Motors (2) ELT 145 Variable Frequency Drives (2) ELT 215 Industrial Control Systems (4) ELT 240 Advanced Programmable Logic Controllers (4)</p> <p><u>AMT/MECH Electives: 5 credits</u></p> <p>Select non-required courses from ELT, MFT, MNT, SCM or WLD</p>	<p>Communications/COM 101 (Writing Proficiency) ENG 103 may be applied as INTM 301 (IIT core)</p> <p>MTH 097 non-transferable; take MTH 101, 103, 124, 134, 140 or 165</p> <p>PSY or SOC, and ECO recommended</p> <p>HUM, HST, LIT or PHI (not PHI 101 or 102). NOTE: this course should satisfy Harper's World Cultures & Diversity Requirement</p> <p>Technical coursework Technical coursework Technical coursework Technical coursework -- Natural Science/Engineering (Physics) Technical coursework Natural Science/Engineering (Physics) Computer Science Natural Science/Engineering (Physics) Technical coursework Technical coursework Technical coursework Technical coursework</p> <p>Remaining electives applied as Technical coursework</p>
TOTAL CREDITS REQUIRED FOR HARPER AAS IN AMT-MECHATRONICS/AUTOMATION: 60	
<p><u>Additional course(s)* required for transfer to IIT: 2 courses (6 credits)</u></p> <p>- MATH (3): One Math course in addition to that taken above for General Education requirements; MTH 165 recommended. - NATURAL SCIENCE/ENGINEERING (3): <i>If ELT 110, 135 and 143 are completed, then one additional 3-credit course (other than Physics, Physical Science, Astronomy or Geology) will be required; EGR 120 Eng Graphics I recommended, BIO or CHEM also acceptable. [To satisfy IIT's Natural Science/Engineering requirements, a minimum of 10 credits must be completed, with 8 credits in a single field and 3 credits in a separate field. Up to 6 credits may be in Drafting/Engineering Graphics.]</i></p>	

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

INTM Admission Requirements: 60 credits	Satisfied by Harper AAS Coursework
Technical Coursework: 31 credits Mathematics: 5-6 credits Natural Science/Engineering: 10-11 credits Computer Science: 3 credits Humanities/Social Sciences: 9 credits	AMT/MECH Major/Technical Courses Two MTH courses as identified above ELT 110, ELT 135 and ELT 143, plus EGR 120, BIO or CHEM ELT 140 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)	Humanities (6 credits): Two (2) 300- or 400-level courses (choose from HIST, HUM, PHIL or LIT)
INTM 315 Industrial Enterprises (3)	Social Science (6 credits): Two (2) 300- or 400-level courses (choose from PSYC, PS, SOC or ECON)
INTM 322 Industrial Project Management (3)	Interprofessional Project (IPRO) (6 credits)
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 420 Applied Strategies for the Competitive Enterprise
INTM 418 Industrial Risk Management	INTM 477 Entrepreneurship in Industry
<u>Specialization Electives</u>	
Construction Technology (CT)	Manufacturing Technology (MT)
INTM 407 Construction Technology	INTM 406 Quality Control
INTM 413 Contract Administration for Construction Projects	INTM 434 Manufacturing 4.0
INTM 415 Advanced Project Management	INTM 435 Performance Management for Food Operations
INTM 417 Construction Estimating	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.
Facilities Management (FM)	Supply Chain Management (SCM)
INTM 405 Maintenance Technology and Management	INTM 409 Inventory Control
INTM 411 Functional Facilities Management	INTM 427 E-Commerce in Marketing & Supply Chain Networks
INTM 413 Contract Administration for Construction Projects	INTM 430 Transportation
INTM 415 Advanced Project Management	INTM 432 Sales and Operations Planning
INTM 416 Integrated Facilities Management	INTM 442 Warehousing and Distribution
INTM 423 Sustainable Facilities Management	INTM 443 Purchasing
	INTM 444 Export/Import
	INTM 446 Manufacturing and Logistics Info Systems
Industrial Sustainability (ST)	
INTM 423 Sustainable Facilities Operations	
INTM 460 Sustainability of Critical Materials	
INTM 461 Energy Options in Industry	
INTM 462 Special Topics in Industry	

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

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

OVERALL CREDITS REQUIRED: 132 (Harper: 60>AAS + 6>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...

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AMT/MECH Program Description: <https://www.harpercollege.edu/academics/manufacturing/manufacturing-technology/index.php>

AMT/MECH Curriculum: https://www.harpercollege.edu/catalog/current/programs/career-certificate/manufacturing_technology_695.pdf

Harper College Online Application: <https://www.harpercollege.edu/start/apply/index.php>

ILLINOIS INSTITUTE OF TECHNOLOGY

Industrial Technology and Management

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<https://www.iit.edu/admissions-aid/undergraduate-admission>

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/undergraduate-admission/transfer-students>