

**Proposed Change: Bachelor of Industrial Technology and Management (BAC-INTM-3)
degree**

INTM is making small adjustments to the Bachelor of Industrial Technology and Management (BINTM) degree, as follows:

INTM required courses:

- add INTM 403 Management and Leadership
- add INTM 434 Digital Transformation
- remove INTM 441 Supply Chain Management

Elective changes:

- remove INTM 403 from general elective options
- remove INTM 434 from specialization in Manufacturing Technology (MT)
- add INTM 441 to specialization in Supply Chain Management (SCM)

These changes will increase INTM required courses to 30 credits (previously 27) and reduce elective courses to 18 credits (previously 21).

These changes incorporate two important topic courses into the core sequence for all students (INTM 403 and 434).

Date Submitted: 02/04/25 5:20 pm

Viewing: **BAC-INTM-3 : Bachelor of Industrial Technology and Management**

Last approved: 03/15/23 4:40 pm

Last edit: 02/04/25 5:20 pm

Changes proposed by: houser

Catalog Pages
Using this Program
[Bachelor of Industrial Technology and Management](#)

In Workflow

1. INTM Curriculum Committee Chair
2. INTM Chair
3. Academic Affairs
4. Undergraduate Academic Affairs
5. AC Dean
6. Undergraduate Studies Committee Chair
7. Faculty Council Chair
8. Academic Affairs

Program Status	Active		
Requestor	Name	Pamela Houser	E-mail
			houser@iit.edu
Origination Date	2025-2-4 2023-2-2		
Is this an interdisciplinary program?	No		
Academic Unit	Industrial Technology & Mgmt College Armour College of Engineering		
Program Title	Bachelor of Industrial Technology and Management		
Effective Academic Year	2025 2023 - 2026	Effective Term	Fall 2025
Academic Level	Undergraduate		

Approval Path

1. 02/04/25 5:22 pm
Pamela Houser (houser): Approved for INTM Curriculum Committee Chair
2. 02/04/25 5:23 pm
Pamela Houser (houser): Approved for INTM Chair
3. 02/05/25 4:50 pm
Ayesha Qamer (aqamer): Approved for Academic Affairs
4. 02/05/25 5:18 pm
Joseph Gorzkowski (jgorzkow): Approved for Undergraduate Academic Affairs
5. 02/05/25 5:21 pm
Hamid Arastoopour (arastoopour): Approved for AC Dean

History

1. Oct 6, 2017 by clmig-jwehrheim
2. Oct 17, 2017 by clmig-jwehrheim
3. Oct 18, 2017 by clmig-jwehrheim
4. Nov 3, 2017 by Sarah Pariseau (sparisea)
5. May 21, 2018 by Pamela Houser (houser)
6. Jun 19, 2018 by Sarah Pariseau (sparisea)
7. Jun 19, 2018 by Sarah Pariseau (sparisea)
8. Mar 21, 2019 by Pamela Houser (houser)
9. Jun 16, 2020 by Pamela Houser (houser)
10. Oct 23, 2020 by Holli Pryor-Harris (pryor)
11. Jun 9, 2021 by Pamela Houser (houser)
12. Apr 22, 2022 by Pamela Houser (houser)
13. Jun 10, 2022 by Khalilah Guyton-Hamlin (kguytonhamlin)
14. Jun 10, 2022 by Patty Johnson Winston (winston)
15. Mar 15, 2023 by Pamela Houser (houser)

If all courses in a subject in your department are required, please enter each subject followed by the number ranges in the "Quick Add" field in the pop up box when you click the green plus button below. For example: ARCH 100-499.

What courses will factor the major GPA?

Program Type Degree

Degree Type Professional Bachelor (BAC)

CIP Code
15.1501 - Engineering/Industrial Management.

Is there more than one Academic Unit proposer?

No

Program Code BAC-INTM-3

Program Attribute

Total Program Credit Hours
126

Please provide a summary and rationale for the requested program revision.

[2/4/25 PH: small changes to required courses and elective options.](#)

2/2/23 PH: small changes to update CT & MT specializations; adding 3 elective courses (total).

06/10/2022, PJW: Updated iteration code to BAC-INTM-3, per department change from College of Computing to Armour College of Engineering.

Program Narrative and Justification

Narrative description of how the institution determined the need for the program. For example, describe what need this program will address and how the institution became aware of that need. If the program is replacing a current program(s), identify the current program(s) that is being replaced by the new program(s) and provide details describing the benefits of the new program(s). If the program will be offered in connection with, or in response to, an initiative by a governmental entity, provide details of that initiative.

Narrative description of how the program was designed to meet local market needs, or for an online program, regional or national market needs. For example, indicate if Bureau of Labor Statistics data or State labor data systems information was used, and/or if State, regional, or local workforce agencies were consulted. Include how the course content, program length, academic level, admission requirements, and prerequisites were decided; including information received from potential employers about course content; and information regarding the target students and employers.

Narrative description of any wage analysis the institution may have performed, including any consideration of Bureau of Labor Statistics wage data related to the new program.

Narrative description of how the program was reviewed or approved by, or developed in conjunction with, one or more of the following: a) business advisory committees; b) program integrity boards; c) public or private oversight or regulatory agencies (not including the state licensing/authorization agency and accrediting agency); and d) businesses that would likely employ graduates of the program. For example, describe the steps taken to develop the program, identify when and with whom discussions were held, provide relevant details of any proposals or correspondence generated, and/or describe any process used to evaluate the program.

Admission Entry Details

What are the enrollment estimates?

Year 1

Year 2

Year 3

Attach Additional
Program
Justification
Document(s)

Academic Information

Advising

Since quality advising is a key component of good retention, graduation, and career placement, how will students be mentored? What student professional organizations will be formed? How will the department work with the Career Services office to develop industry connections?

Program Resources

Which program resources are necessary to offer this program?

Proposed Catalog Entry

Admission Requirements

Course Requirements

Bachelor of Industrial Technology and Management Requirements

Admission Transfer Requirements	(60)
Details listed under Admission Requirements	60
Industrial Technology Requirements	(30)
INTM 301 Communications for the Workplace	3
INTM 315 Industrial Enterprises	3
INTM 322 Industrial Project Management	3
INTM 403 Management and Leadership	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 434 Digital Transformation	3
INTM 459 Issues in Industrial Sustainability	3
INTM Electives (Technical and/or Specialization)	(18)
Select 21 credit hours¹	21
Select 18 credit hours¹	18
Humanities Electives	(6)
300/400-level courses	6
Social Sciences Electives	(6)
300/400-level courses	6

Interprofessional Projects (IPRO)	(6)
See Illinois Tech Core Curriculum, section E	6
Total Credit Hours	126

¹ See Specializations tab for industrial technology and management specializations. INTM technical electives are specified on this page.

Technical Electives

INTM 403	Management and Leadership	3
INTM 418	Industrial Risk Management	3
INTM 420	Applied Strategies for the Competitive Enterprise	3
INTM 427	E-Commerce in Marketing and Supply Chain Networks	3
INTM 477	Entrepreneurship in Industry	3

Sample
Curriculum/Program
Requirements

Bachelor of Industrial Technology and Management Curriculum

A suggested program based on half-time attendance. Students may complete coursework at their own pace.

		Year 1	
Semester 1	Credit Hours	Semester 2	Credit Hours
INTM 301	3	INTM 322	3
INTM 315	3	INTM 403	3
INTM 404	3	INTM Elective	3
INTM Elective	3	INTM Elective	3
	9		9
		Year 2	
Semester 1	Credit Hours	Semester 2	Credit Hours
INTM 410	3	INTM 425	3
INTM Elective	3	INTM Elective	3
INTM 404	3	Social Sciences Elective (300+)	3
INTM 459	3		
Humanities Elective (300+)	3		
	9		9
		Year 3	
Semester 1	Credit Hours	Semester 2	Credit Hours
INTM 459	3	INTM 441	3

<u>INTM 410</u>	<u>3</u>	<u>INTM 434</u>	<u>3</u>
INTM Elective	3	INTM Elective	3
I PRO Elective I	3	Social Sciences Elective (300+)	3
	9		9
			Year 4
Semester 1	Credit	Semester 2	Credit
	Hours		Hours
<u>INTM 408</u>	3	I PRO Elective II	3
Humanities Elective (300+)	3	INTM Elective	3
	6		6
Total Credit Hours: 66			
Specialization Requirements			

Industrial Technology and Management Curriculum Specializations

Five industrial specializations are available. To earn a specialization, the student must complete four courses within an identified focus area.

Construction Technology (CT)

Covers construction technology, estimating, project management, and contract administration.

Select four courses from the following:	12
<u>INTM 407</u> Construction Technology	3
<u>INTM 413</u> Contract Administration for Construction Projects	3
<u>INTM 415</u> Advanced Project Management	3
<u>INTM 417</u> Construction Estimating	3
<u>CAE 471</u> Construction Planning and Scheduling	3
<u>CAE 472</u> Construction Site Operation	3
Total Credit Hours	12

Facilities Management (FM)

Covers facilities operations and maintenance (O&M), the role and responsibilities of the facilities manager, integration of new technologies, energy efficiency in buildings, and activities required for LEED certification.

Select four courses from the following:	12
<u>INTM 405</u> Maintenance Technology and Management	3
<u>INTM 411</u> Functional Facilities Management	3
<u>INTM 413</u> Contract Administration for Construction Projects	3

INTM 415	Advanced Project Management	3
INTM 416	Integrated Facilities Management	3
INTM 419	Budgeting and Finance for Facility Managers	3
INTM 423	Sustainable Facilities Operations	3
Total Credit Hours		12

Industrial Sustainability (ST)

Covers a range of issues in industrial sustainability, critical material resources, and alternative energies.

INTM 423	Sustainable Facilities Operations	3
INTM 460	Sustainability of Critical Materials	3
INTM 461	Energy Options for Industry	3
INTM 462	Special Topics in Sustainability	3
Total Credit Hours		12

Manufacturing Technology (MT)

Covers advanced technologies, process optimization, automation, quality control, and information systems.

Select four courses from the following:		12
INTM 406	Quality Management Systems	3
INTM 434	Digital Transformation	3
INTM 435	Performance Management in Food Operations	3
INTM 436	Lean Manufacturing	3
INTM 437	Smart Factory Automation	3
INTM 438	Advanced Machining for Manufacturing 1	3
INTM 439	Advanced Machining for Manufacturing 2	3
INTM 446	Manufacturing and Logistics Information Systems	3
INTM 448	Agile Methodologies for New Product/Process Development	3
INTM 452	Pharmaceutical Manufacturing Technologies, Regulation and Practice	3
Total Credit Hours		12

Supply Chain Management (SCM)

Covers strategic supply chain management, inventory, information systems, warehousing and distribution, purchasing, transportation, and export/import activities.

Select four courses from the following:		12
INTM 427	E-Commerce in Marketing and Supply Chain Networks	3

INTM 430	Global Logistics Management	3
INTM 432	Sales and Operations Planning	3
INTM 441	Supply Chain Management	<u>3</u>
INTM 442	Warehousing and Distribution	3
INTM 443	Purchasing	3
INTM 444	Export/Import	3
INTM 446	Manufacturing and Logistics Information Systems	3
Total Credit Hours		12

Program Outcomes and Assessment Process

What are your learning objectives in this program? Please list each learning objective in the boxes below:

Note: These should be the same as described in your assessment plan at the bottom of this form.

Students will be able to demonstrate a broad knowledge of issues impacting industrial enterprises.

Students will be able to identify and describe best practices in industry and methods of implementation.

Students will be able to identify and analyze operational problems and formulate acceptable solutions.

Students will be able to identify how current and/or emerging technologies are used to facilitate operational improvements.

Students will be able to identify activities which contribute to achieving sustainable industrial operations.

Students will be able to communicate effectively in written and verbal formats, in an objective and professional manner.

Upload your
assessment plan
here:

Undergraduate Program Requirements

What courses will
factor the major
GPA?

Undergraduate Degree Requirements

Minimum credit 126
hours

Specialization
required?
Optional

Notes about
specialization
requirement

Minor required?
No

Proposed General Curriculum

Degree credit hours 126
required

Specialization 12
credit hour
requirement

List Major Course
Requirements

List Mathematics
Requirements

List Science
Requirements

List Computer
Science
Requirements

List Humanities and
Social Sciences

Requirements

List

Interprofessional

Project (IPRO)

Requirements

List Technical

Elective Course

Options

List Free Elective

Credit Hours (if

applicable)

Semester-by-

semester plan of

study for the

degree program

Specialization

Report to Faculty

Council

Reviewer

Comments

