



# THE POWER OF TRAINING

## 2020 GUIDE

### BOOK IT!

Save up to 10% off a  
**Company Classroom**  
by booking your event by  
**July 4, 2020.**

TAPPI members get significant discounts on TAPPI's  
online and classroom courses!



TAPPI Academy is the premier education and training center of excellence for the worldwide pulp, paper, packaging, tissue and converting industries.

- ⚙️ Award-Winning Faculty
- ⚙️ Antitrust Compliant Curriculum
- ⚙️ 50+ Expert Instructors

Use this Guide for ideas and explore more at:  
**[TAPPI.org/Training](https://TAPPI.org/Training)**

## Content Distinction



### **Look for this symbol for TAPPI Peer-Reviewed content:**

Represents content that has passed our stringent peer-review process by expert knowledge holders within the relevant field.



### **Look for this symbol for content provided by a TAPPI Subject Matter Expert:**

Represents content that has been developed and presented by proven industry experts exhibiting the highest level of expertise in performing a specialized job, task or skill within their industry sector.



### **Look for this symbol for content with available Professional Certificate exams:**

Represents content with an available exam developed by industry practitioners who uniquely understand the technical knowledge and experience required for superior performance.

## TAPPI Accreditation

### **CEUs - Continuing Education Credits**



The Education Project Center of TAPPI has been reviewed and approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET).



## Want expert training delivered to your workplace?

You can turn just about any of TAPPI's training courses into a Company Classroom and tailor the curriculum to fit your company's needs and budget. TAPPI's customized training can be delivered onsite – inside and outside - at your location.

A TAPPI instructor will assess training requirements with you and then create a curriculum that can cover everything from entry-level training for new employees to highly niche topics for your more seasoned workforce.

Consider a customized Company Classroom to advance your team's development.

Email [training@tappi.org](mailto:training@tappi.org)  
for more information.

**SAVE UP TO  
10% OFF  
a Company Classroom  
by booking  
your event by  
July 4, 2020.**





Broke Systems	Broke cleaning, screening, broke repulpers, inventory, under-machine repulpers	Online
Chemical Additives	Starch cooking and wet end chemistry	Online
Converting	Sheeting of paper, palletizing, and paper ream packing	Online
Dry End Equipment	Calendering, carrier ropes, QCS scanners, paper coating, reel systems, tail threading	Online
Finishing	Winding, pulp drying and baling, roll handling, wrapping	Online
Forming	Forming fabrics, Fourdriniers, twin-wire formers, sheet formation, and wet edge control	Online
General Papermaking	Papermaking processes, doctor blades, safety, and steam theory	Online
Headboxes	Air-padded headboxes, hydraulic headboxes, and stock jet geometry	Online
Introduction to Kraft Pulping and Bleaching Course	Kraft pulp mill operations; effect of processes on kraft pulp quality	Face-to-Face Event * <b>TAPPI.org/IKPBC</b>
Introduction to Pulp & Paper Technology Course	Technology overview of how and why things happen in pulp and paper processes	Face-to-Face Event* <b>TAPPI.org/IPP</b>
Introduction to Pulp & Paper Technology Professional Certificate	Ensures introductory- to intermediate-level knowledge of pulping and paper making technology	Exam for Certificate* 
Introduction to Printing Course	Printing system components including ink, fountain solution, and paper requirements	Face-to-Face Event* <b>TAPPI.org/PRINTING101</b>
Introduction to Wet End Chemistry Course	Wet end chemistry troubleshooting, optimization, product quality, machine productivity	Face-to-Face Event <b>TAPPI.org/IWECC</b>
Kraft Recovery Operations Course	Intermediate; covers chemistry, physics and engineering principles in kraft recovery mills	Face-to-Face Event <b>TAPPI.org/KROS</b>
Paper Coating Technology	Printing methods for coated grades of paper and board, impact of pigment selection, chemistry and properties of starch and protein binders, materials and equipment	Online*
Paper Machine Auxiliary Systems	Auxiliary systems in the paper machine process; hydraulic, vacuum and lubrication systems, drives	Online
Paper Machine Dryers	Dryer felts, cascade and thermocompressor steam systems, dryer hoods and more	Online
Paper Machine Operations Course	Introductory; Components, operations, methods to improve efficiency and product quality	Face-to-Face Event <b>TAPPI.org/PAPOPS</b>
Paper Machine Optimization	Intermediate; wet end operations and pressing and dry end operations	Online*
Paper Manufacturing Technology	Overview of papermaking technology, process variables, equipment and terminology	Online*
Paper Properties and Testing	Paper and board physical tests, optical tests, strength tests, process testing	Online*
Paper Properties & Testing Labs	Labs and videos of procedures used to test paper and board; background about properties tested	Online
Stock Approach	Stock prep to headbox, centrifugal cleaners, deaeration, thin stock screening and more	Online
Stock Preparation	Stock prep, high consistency refining, high density cleaners, refining and more	Online
Storage and Shipping	Preventing paper roll damage, storage and tracking, truck trailer loading, railcar loading	Online
Wet End Chemistry	Papermaking materials, fillers and additives, product attributes, process efficiency	Online*
Wet Pressing	Felt cleaning and conditioning, roll presses, shoe presses, steam boxes, wet pressing theory	Online
White Water and Filtrate Systems	DAF systems, strainers, filters, circulation loops, clarification, white water system design	Online
The Handbook for Pulp and Paper Technologists, 4th Edition (The SMOOK Book)	Best-selling text to introduce the entire technology of pulp and paper manufacture. This renowned book has been updated to reflect the latest technology and the current state of the North American industry. Available at <a href="http://TAPPI.org/Bookstore">TAPPI.org/Bookstore</a>	
Advances in Papermaking Wet End Chemistry Application Technologies	This book describes the most important advances in papermaking wet-end chemistry applications technologies in past decades. Highlights how recent progress in equipment, automation, and procedures are providing papermaking efficiency plus uniformity and end-use performance of products. Available at <a href="http://TAPPI.org/Bookstore">TAPPI.org/Bookstore</a>	

Please go to [tappi.org/training](http://tappi.org/training) or [tappi.org/bookstore](http://tappi.org/bookstore) for more information.

## Pulp Education



Bleaching	Alkaline extraction, bleaching equipment, recycling, oxygen delignification	Online
Chemical Recovery	Chemical recovery operations, terminology, equipment and process variables	Online*
Evaporators	Black liquor evaporator operations, equipment, principles, testing	Online
Environmental	CNCG and contaminated condensate systems, HVLC, and wastewater systems	Online
Environmental Control	U.S. environmental laws/regulations, air emission treatment and more	Online*
Fiber Supply	Fiber supplied to the pulping process; log handling, chip screening, and testing, and more	Online
Introduction to Pulp & Paper Technology Course	Technology overview of how and why things happen in pulp and paper processes	Face-to-Face Event* <b>TAPPI.org/IPP</b> 
Introduction to Kraft Pulping and Bleaching Course	Kraft pulp mill operations; effect of processes on kraft pulp quality	Face-to-Face Event* <b>TAPPI.org/IKPBC</b>
Introduction to Wet End Chemistry Course	Wet end chemistry troubleshooting, optimization, product quality, machine productivity	Face-to-Face Event* <b>TAPPI.org/IWECC</b>
Kraft Pulping	Batch cooking, blow line refining, brown stock systems, digesters, kraft pulping by-products	Online
Kraft Recovery Operations Course	Intermediate; covers chemistry, physics and engineering principals in kraft recovery mills	Face-to-Face Event <b>TAPPI.org/KROS</b>
Pulp Manufacturing Technology	Overview of pulping, pulp processing, bleaching technology, process variables, equipment	Online*
Pulp Properties & Testing Labs	Labs of procedures to analyze raw materials, chips, pulp and more	Online*
Recaust	Dregs washing, electrostatic precipitators, exhaust gas scrubbers, green liquor clarifiers, and more	Online
Recovery	Fluidized bed boilers, kraft recovery boilers, baghouses	Online
Technology and Science of Paper Recycling	Recycling processes; quality of the raw materials, environmental requirements, cost reduction and more	Online*
Supplemental and Recycled Fiber	OCC and supplemental and recycled fiber processes	Online

### Brownstock Washing Fundamentals and Practices

Provides knowledge for pulp mill employees for any level. This book reviews current state-of-the-art methods for designing and operating brownstock washing systems  
Available at [TAPPI.org/Bookstore](http://TAPPI.org/Bookstore)



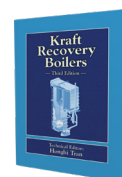
### Black Liquor Evaporation **NEW!**

Kraft pulp and black liquor production worldwide, properties relevant to evaporation, evaporation fundamentals, design principles and analysis for black liquor evaporation, auxiliary processes, scaling and fouling in black liquor evaporators, and terminology  
Available at [TAPPI.org/Bookstore](http://TAPPI.org/Bookstore)



### Kraft Recovery Boilers, Third Edition **NEW!**

Covers chemical principles, black liquor properties, sprays and combustion/char bed characteristics, fouling, plugging, sootblowing, corrosion and cracking, emissions, safety, and control design principles. The book is coauthored by eight experts, who have served as instructors of the Kraft Recovery Course for many years. It contains sixteen chapters, covering various aspects of recovery boiler technology.  
Available at [TAPPI.org/Bookstore](http://TAPPI.org/Bookstore)



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\* Noted by Asterisks



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## Corrugated Education



Advanced Bonding Course	Increases understanding of corrugated bonding process, variables impacting bond performance, bonding settings, glue line analysis, combined board caliber, process centerlining	Face-to-Face Event* <b>TAPPI.org/ADVBOND</b>
Best Practices on the Corrugator Course	Supports achieving higher productivity for better product quality board, waste reduction, settings for peak performance, critical properties of raw materials	Face-to-Face Event* <b>TAPPI.org/BESTCORR</b>
Board Tests	Tests used to predict stacking performance of boxes, performance during handling, tests used to monitor corrugating and converting operations at box plants, flat crush test (FCT), warp test, pin adhesion test	Online
Box Plant Equipment Basics	Common box plant equipment and processes, discusses equipment layout, material flows, storage considerations	Online
Corrugated Adhesives	Background of corrugating adhesives, describes purpose or function of ingredients in modern, starch-based adhesives	Online
Corrugated Packaging - Box Plant Basics	Fundamental overview of equipment, materials, and processes	Online
Corrugated Box Basics	Common industry terms, describes popular corrugated board and corrugated box styles, corrugated box usage considerations	Online
Corrugators	Corrugating process, wet end components, preconditioning, preheating, corrugating and pressure rolls, adhesive application, double facer glue unit, hot plate section, dry end, stacker, and double, triple wall corrugators	Online
Die Cutters	Corrugated board and box making equipment, design and operation of rotary and platen die cutters, in-line sectional die cutter machines	Online
Flexo Folder-Gluers	Design and operation of the machine sections of a flexo folder-gluer, feed section, printing section, creaser-slotter, die cutter, glue lap unit, folding section, delivery end	Online
Introduction to Corrugated Course	Develops abilities in developing, understanding, and communicating common corrugated language to identify and resolve quality issues on the corrugator	Face-to-Face Event* <b>TAPPI.org/INTROCORR</b>
Other Box Plant Equipment	Design and operation of box plant equipment, printer-slotters, folder-gluers, stitchers, tapers, laminators, presses, litho-laminators, bundlers and palletizers	Online
Raw Materials	Wood fiber sources, chemical pulping, papermaking processes, and various glues, inks, and coatings used in the production of corrugated board and corrugated boxes	Online
Safety	Safe work behaviors, equipment safety hazards, stored energy hazards, chemical hazards, emergency stops, vehicle and pedestrian hazards within box plants	Online
Corrugated Containers Manufacturing Process	Comprehensive textbook describes the entire process of manufacturing corrugated containers; provides in-depth content for professionals working in all areas of corrugated containers Available at <a href="http://TAPPI.org/Bookstore">TAPPI.org/Bookstore</a>	

**TAPPI utilizes the expertise of The Packaging School as an exclusive licensee of the professional packaging curriculum developed at Clemson University. Learn more about this valuable partnership at [TAPPI.org/packagingschool](http://TAPPI.org/packagingschool).**

**Additional titles include:**

**Packaging Foundations**  
**Corrugated Containers**  
**Paperboard Cartons**  
**Sustainable Packaging**

**Packaging Machinery**  
**Packaging Laws and Regulations**  
**Packaging Distribution**  
**Packaging Design Workflow**

**Polymers in Packaging**  
**Packaging Printing**  
**Glass Packaging**  
**Metal Packaging**



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## Flexible Packaging Education



Blown and Cast Film Extrusion	Covers common resins and equipment used in blown and cast film applications; film extrusion technology, improving existing extrusion processes	Face-to-Face Event*
Extrusion Coating Symposium	Intermediate-to-advanced course delivers basic resin and equipment technology (extruders, dies, and auxiliary equipment) that have applications in extrusion coating applications; covers common process problems in extrusion coating	Face-to-Face Event*
Extrusion Coating Manual, 5th Edition <b>NEW!</b>	The most comprehensive, hands-on manual covering the extrusion coating process, materials, equipment, and products for engineers, technicians, operators, and managers Available at <a href="http://TAPPI.org/Bookstore">TAPPI.org/Bookstore</a>	
The Ultimate Roll and Web Defect Troubleshooting Guide	Considered an imperative guide for troubleshooting roll and web defects; a communication tool for suppliers and their customers to assist in the identification and elimination of roll and web defects Available at <a href="http://TAPPI.org/Bookstore">TAPPI.org/Bookstore</a>	

Please go to [tappi.org/training](http://tappi.org/training) or [tappi.org/bookstore](http://tappi.org/bookstore) for more information.

## Four Steps to Assess Training Needs for Your Team

### 1. Conduct a Needs Assessment Survey

Ask managers to identify skills needed on their teams.

### 2. Analyze Staffing Changes

Determine knowledge shortfalls from new hires, retirements, or performance evaluations.

### 3. Assess Training Options

Match training needs with learning outcomes, curriculum topics, and instructor expertise.

### 4. Outline Training Recommendations

Summarize goals, time required, expenses and ROI. Reach out to [training@tappi.org](mailto:training@tappi.org) with your questions.



## Tissue Education



Tissue 101: Properties & Processes Course	Introductory overview of tissue manufacturing process and the effect on product performance properties; increases students' understanding of tissue performance properties and manufacturing	Face-to-Face Event* <b>TAPPI.org/TIS101</b>
Tissue 101: Properties & Processes	Content, videos and visuals presented by subject matter experts. Introductory course designed for anyone who needs a comprehensive overview of tissue manufacturing process and the effect of processes on product performance.	Online*
Tissue 101: Properties and Processes Professional Certificate	Confirms an exceptional understanding of tissue manufacturing basics	Exam for Certificate* 
Tissue 201: Operations & Runnability Course	Intermediate- to advanced-level course focused on improving tissue quality and consistency, understanding contributors to waste and downtime; covers reliability and maintenance best practices, troubleshooting	Face-to-Face Event* <b>TAPPI.org/TIS201</b>
TAPPI Tissue 201: Operations & Runnability	Intermediate- to advanced-level course designed to improve tissue quality and consistency, understand contributors to waste and downtime, teach reliability and maintenance best practices, and diagnose and troubleshoot problems quickly.	Online
Tissue Operations and Runnability Professional Certificate	Ensures demonstration of competency in critical tissue manufacturing knowledge	Exam for Certificate* 
Tissue 202: Converting Operations Course	Intermediate instruction on basic rolled products converting processes, tissue parent roll (jumbo reel/soft roll) quality and variability, and impacts the runnability of these complex lines	Face-to-Face Event* <b>TAPPI.org/TIS202</b>
Tissue Manufacturing Technology	Introductory instruction designed to increase understanding of tissue properties, raw materials, equipment and processes	Online*
Guidelines for Safe Assessment and Operation of Yankee Dryers <b>NEW!</b>	Prepared by TAPPI's Yankee Dryer Safety Subcommittee to provide guidelines for the safe operation and management of Yankee dryers Available at TAPPI.org/Bookstore	



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## TAPPI Professional Certificates



Introducing a new standard of excellence in careers within the forest products industries.

Earning a TAPPI Professional Certificate ensures you demonstrate competency in critical knowledge and demonstrates you are ready to expertly manage demands at work.

Exams are developed by industry practitioners who uniquely understand the technical knowledge and experience required for superior performance in the global forest products environment.

[TAPPI.org/Certificate](http://TAPPI.org/Certificate)



## TAPPI Training Plans

### Allow TAPPI to curate your learning path.

We can help you plan and integrate a long-term process for training that can be tailored to your workforce and company's objectives. Below is one example of a sustained training plan.

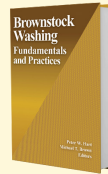
**1. COURSE:**  
**TAPPI Introduction to Pulp and Paper Technology**  
(TAPPI.org/IPP)

The Handbook for Pulp & Paper Technologists  
(The Smook Book)



**3. COURSE:**  
**TAPPI Introduction to Kraft Pulping and Bleaching Course**

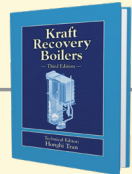
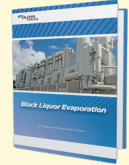
Brownstock Washing:  
Fundamentals and Practice



**5. COURSE:**  
**TAPPI Kraft Recovery Operations**

Black Liquor Evaporation

Kraft Recovery Boilers,  
3rd Edition



**2. WEBINAR:**  
**Paper Quality Measurement:  
Past Present and Future**

Awarded Best Paper at  
PaperCon 2015

**4. CONFERENCE:**  
**PEERS or PaperCon**



**When some of the largest facilities make a major change in their safety orientation, it's time for you to learn more.**

- Developed For and By the Industry
- Time Savings and Cost Benefits
- Reduce Exposure to OSHA Scrutiny

### **Orientations Include:**

- Basic Orientation
- Site-Specific Orientation
- General Safety Training Courses
- GateCheck Application

Discover why TAPPISAFE is the right choice for your facility.  
Visit [TAPPISAFE.ORG](http://TAPPISAFE.ORG) or contact us at [INFO@TAPPISAFE.ORG](mailto:INFO@TAPPISAFE.ORG)



## TAPPI Webinars



If you're looking for workshops that are:

**Brief**

(typically one hour long)

**Require no travel**

(stream live from your computer)

**Focused**

(covering the topics that matter most to you)

...look no further than **TAPPI Webinars that are free to TAPPI members.**

Just a few of the webinars offered are listed below and you'll find many more at **TAPPI.org/Webinars:**

- Improving Winder Safety
- Modern Hydraulic Headboxes
- Paper Quality Measurement
- Tissue Creping and Creping Chemistry
- Machine Thermal Sprayed Yankee Dryer Coatings
- Tissue Softness Explained
- Digital Printing for Corrugated, Parts I and II
- Corona and Plasma Surface Treatments

## The Power of Partnerships

### THE POWER OF PARTNERSHIPS

TAPPI Academy is partnered with educational institutions, such as Clemson, North Carolina State University, and the Wisconsin Institute for Sustainable Technologies, as well as manufacturing consultants like IDCON, to deliver more training opportunities to you.

These partnerships give you registration discounts, networking and impeccable, focused instruction for your workforce.



Wisconsin Institute for Sustainable Technology  
College of Natural Resources  
University of Wisconsin - Stevens Point



# FACE-TO-FACE TRAINING CALENDAR

## FEBRUARY 2020

4-5	IDCON Work Management Planning and Scheduling	Raleigh, NC
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## MARCH

9-13	NCSU Hands-On Workshop for Pulp and Paper Basics	Raleigh, NC
16-17	IDCON Develop and Manage Preventive Maintenance Strategy	Raleigh, NC
18-19	IDCON Root Cause Problem Elimination	Raleigh, NC
23-24	TAPPI Introduction to Corrugated Course (1.5 Days)	TAPPI HQ, Atlanta, GA
24-27	TAPPI Best Practices on the Corrugator (Half Days on Mar 24 and 27)	TAPPI HQ, Atlanta, GA

## APRIL

2-3	WIST Hands On Paper Making Course	Stevens Point, WI
20-21	IDCON Shutdown Turnaround Optimization Program	Raleigh, NC
22-23	IDCON Work Management Planning and Scheduling	Raleigh, NC
25-26	TAPPI Introduction to Printing Course (Co-located with PaperCon)	Metro Atlanta, GA

## MAY

7-8	WIST Advanced Paper Making Course: Formation	Stevens Point, WI
12-13	TAPPI Tissue 201: Operations and Runnability Course	Neenah, WI
12-14	TAPPI Papermachine Operations Course	Neenah, WI
12-14	NCSU Strategic and Financial Analysis Workshop for Pulp and Paper	Raleigh, NC
18-22	NCSU Hands-on Workshop for Hygiene Tissue Basics	Raleigh, NC
18-19	IDCON Materials and Spare Parts Management	Raleigh, NC
28-29	WIST Advanced Paper Making Course: Additives	Stevens Point, WI

## JUNE

1-5	NCSU Hands-On Workshop for Pulp and Paper Basics	Raleigh, NC
2-4	TAPPI Tissue 202: Converting Operations Course	Green Bay, WI
9-11	TAPPI Introduction to Wet End Chemistry Course	TAPPI HQ, Atlanta, GA

## JULY

23-24	WIST Coating & Lamination in Packaging Application Course	Stevens Point, WI
28-30	Western Michigan University Paper and Paperboard Coating Course	Kalamazoo, MI

## AUGUST

11-12	TAPPI Introduction to Kraft Pulping and Bleaching Course	TAPPI HQ, Atlanta, GA
11-13	Western Michigan University Fiber Recycling Course	Kalamazoo, MI

## SEPTEMBER

3-4	WIST Hands On Paper Making Course	Stevens Point, WI
12-13	Fundamentals of the Basics of Flexos and Diecutters (at SuperCorr Expo)	Orlando, FL
26-27	Tissue 101: Properties and Processes Course	Atlanta, GA

## OCTOBER

5-9	NCSU Hands-On Workshop for Pulp and Paper Basics	Raleigh, NC
8-9	WIST Advanced Paper Making Course: Formation	Stevens Point, WI
13-15	NCSU Strategic and Financial Analysis Workshop for Pulp & Paper	Raleigh, NC

## NOVEMBER

5-6	WIST Advanced Paper Making Course: Additives	Stevens Point, WI
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## JANUARY 2021

11-14	TAPPI Introduction to Pulp and Paper Technology Course	St. Petersburg, FL
11-14	TAPPI Kraft Recovery Operations Course	St. Petersburg, FL

**Please Note: Dates may be subject to change.**

TAPPI Members can receive discounted registration on select courses.

Mention your TAPPI Membership when registering. Not a member? Become one at [www.TAPPI.org/JOIN](http://www.TAPPI.org/JOIN)

For more information, contact us at: [www.TAPPI.org/calendar](http://www.TAPPI.org/calendar) or by email at [training@TAPPI.org](mailto:training@TAPPI.org)

# Become a Sustaining Member & Get Discounts off Training



**1**

**Professional TAPPI membership for primary contact**

**2**

**Six-month gift memberships**

**5**

**Charitable donations of student memberships**

**1**

**Paper360° magazine subscription**



**1**

**TAPPI Journal subscription**

**1**

**TAPPI Journal Yearbook**



**6**

**Specialty e-newsletters**



**25,000+**

**Technical papers and articles in the TAPPI e-Library**



**Buyers Guide listing and a copy of Products & Services Guide**



**Discount on job postings to Career Center**



**Framed recognition certificate to display at TAPPI events for exhibitors**

**Discounts on company classrooms**

**5%**

**\$1,500**

**Charitable donation tax credit**

**1**

**Online license for TAPPI Standards & TIPS**



**1**

**Registration for a course or conference**

**\$1,000**

**Discount on development of a customized employee safety orientation course through TAPPISAFE**



**Plus...**

- ✓ Pre-registration pricing for company employees at TAPPI events
- ✓ Framed membership certificate
- ✓ Premium exhibit space at TAPPI Student Summit
- ✓ Replacement membership



For more information, contact Lisa Lockwood, Sustaining Member concierge, at +1 (770) 209-7246 or llockwood@tappi.org

**Get a Professional Membership to TAPPI for only \$174 per year. [TAPPI.org/JOIN](https://tappi.org/JOIN)**