



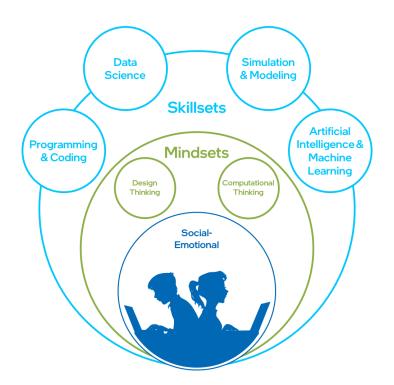
# Skills for Innovation

Professional Development Overview

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# Intel® Skills for Innovation Framework



The Intel® Skills for Innovation Framework envisions a world in which students possess the skills necessary to meet the shifting landscape of the Fourth Industrial Revolution. Students are empowered to be innovators as they prepare for, imagine and create the jobs of the future.

The framework provides a direction for decision makers and educators to integrate technology activities into the existing curriculum to build essential mindsets and skillsets.

# Path to Adopting Intel Skills for Innovation

#### Plan

Understand new skill requirements in the post-pandemic environment. Rethink technology's role to foster skill building. Align stakeholders and facilitate creation of action plan.

# Experience

Experience technology used for skill building in the actual learning environment and verify viability. Identify best practices for wider adoption.

#### Train

Develop educators' competencies to facilitate higher-order skills development in their students.

# Deploy

Adopt technologysupported, skills-based learning models across the entire education system.

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Intel SFI **Planning** Toolkit



Intel SFI Starter Pack



Intel SFI Professional Development



Engage with Intel Partner **Ecosystem** 

# Introduction to Intel® SFI Professional Development

Intel® SFI Professional Development empowers educators as they assume their roles from adapters of technology to mentors of upgraded mindsets. The Intel SFI Professional Development suite, consisting of four levels, equips educators with the necessary skills to adapt technology in an anywhere learning environment and create technology-infused learning experiences that build future-ready skills in learners. Through the content available on the Intel Skills for Innovation Platform, educators are kept up to date with trends that impact the future of today's learners, supported by technology tools that maximize the way teaching and learning takes place.

Intel Professional Development uses a model consisting of four levels that transition educators from adapters of technology to mentors of innovation.

## Adapter



Owner



## Catalyst



#### Mentor



#### Adapt Technology

This optional level is for educators who are new to technology in education. It supports them in building basic digital fluency through a mix of face-toface and online modules.

## Lead Learning **Experiences**

Level 2 helps educators transition from being content experts to effectively owning and leading learning experiences.

#### Catalyze Creative Confidence

In Level 3, educators are challenged to reimagine learning experiences using technology, thus empowering students to become confident innovators.

#### Mentor Upgraded **Mindsets**

Level 4 introduces educators to the upgraded mindsets that are essential for students to thrive in the Fourth Industrial Revolution and successfully navigate unknowns of tomorrow.

# Intel SFI Professional Development Suite

Intel SFI Professional Development is hosted on the Intel SFI Platform<sup>1</sup> which offers educators access to an interactive, engaging and collaborative learning community. Level 1 is delivered through a mix of face-to-face and supervised online modules whereas Levels 2, 3 and 4 are delivered through asynchronous online learning.

# Contents of Intel SFI Professional Development



#### Level 1: Adapter of Technology<sup>2</sup>

Module 13: Introduction to Technology in Education

Module 23: Learning Computer **Basics** 

Module 3: Learning Internet **Basics** 

Module 4: Basics of Multimedia and Slides

Module 5: Basics of Word Processing

Module 6: Basics of Spreadsheets

Module 7: Collaborative Workspaces

Module 8: Learning Video Basics



Level 2: Leader of Learning Experiences

Course: Introduction to Learning Remotely

Course: Establishing Effective Educator-Machine Partnerships

Course: Fostering Student Engagement in the Age of Digital Distraction

Course: Strengthening Realworld Relevance in Classroom



Course: Analytical Thinking through Data

Course: Critical Reasoning to Make Better Decisions

Course: Bridging the Creativity Gap



Level 4: Mentor of Upgraded

Course: From Waterfall to Agile Mindset

Course: From Operational to Strategic Thinking

Course: From Follower to Entrepreneurial Mindset

Each course in Levels 2 and 3 contains three courselets

<sup>&</sup>lt;sup>1</sup> Intel® SFI Professional Development suite is also SCORM-compliant and can be hosted on your learning management system. Contact your Intel service provider for more details.

<sup>&</sup>lt;sup>2</sup> Hybrid learning approach

<sup>&</sup>lt;sup>3</sup> Conducted in-person format

# Level 1 – Adapter of Technology

Level 1 supports educators who are new to technology with a strong foundation in basic digital fluency. The content, presented through face-to-face and supervised online sessions, consists of eight modules and is designed to develop basic competencies in using technology for teaching and learning.

## Modules 1-8



## Module 1

# Introduction to Technology in Education (2 h), Conducted In-person

Educators are introduced to technology's role in education and plan steps towards technology integration in teaching and learning.



## Module 3

#### Internet Basics

#### (4h), Synchronous & Asynchronous

Introduction to Internet basics and its uses in the classroom. Through a guided learning practice, educators learn how to navigate the Internet safely and use tech tools for learning.



## Module 5

# Basics on Word Processing (2 h), Synchronous & Asynchronous

Educators learn to identify common uses of word processing and apply word processing skills in teaching and learning.



## Module 7

# Collaborative Workspaces (4 h), Synchronous & Asynchronous

Introduction to collaborative workspaces which use cloud storage applications and web-based tools that facilitate collaboration in teaching and learning.



## Module 2

# Learning Computer Basics (2h), Conducted In-person

Educators are introduced to basics of computing and develop their confidence in using computers for teaching and learning.



## Module 4

#### Basics on Multimedia/Slides (4 h), Synchronous & Asynchronous

Trainers guide educators in the use of multimedia tools to foster interaction, engagement and visual learning in their classrooms.



## Module 6

# Basics on Spreadsheets (2 h), Synchronous & Asynchronous

Educators learn basic skills in commonly used spreadsheet programs for use in gathering and managing data.



## **Module 8**

#### Learning Video Basics

#### (4h), Synchronous & Asynchronous

Introduction to video tools for use in education. Educators practice using video conference tools and recording software to produce pre-recording videos.

# Level 2 - Leader of Learning Experiences

Level 2 helps educators transition from being content experts to becoming effective owners and leaders of learning experiences. Educators will be able to create engaging and effective lessons in an anywhere learning environment supported by digital technologies. Strong partnerships are also forged between educators and technology where innovative pedagogical approaches are adopted to facilitate skills development in innovation. Through immersive learning experiences, educators engage learners in creative collaboration in authentic learning contexts.

Level 2 consists of four courses. Each course comprises three courselets with an expected total of six hours of professional development.

## Courses in Level 2



Courselet Titles

- Setting Up an Effective Virtual Classroom
- Enabling an Engaging Virtual Classroom
- Enrolling Support of Parents in Students' Learning

#### **Course 1:** Introduction to Learning Remotely

As schools transition from traditional physical classrooms to an anywhere learning environment, there is a need to explore the challenges and provide insights into how these practices affect various education stakeholders, including educators, learners, and their parents or guardians.

This comprehensive course aims to support and improve teaching and learning processes and focus on beneficial parent, teacher, and student learning partnerships. It also explores the importance of maintaining good mental and physical well-being for educators and learners in an anywhere learning environment.



Courselet Titles

- Getting Ready for Educator 4.0
- Applying Technology for Innovation
- Discovering
   Opportunities and
   Threats of Machines

# **Course 2:** Establishing Effective Educator-Machine Partnerships

Technology has become increasingly integrated with the provision of adequate education for learners worldwide. There is a need to study the advantages and shortcomings of this integration to provide educators with optimal teaching and learning practices.

This course supports the educator's adaptation of education technology, understand ing of skills development for innovation in their learning experiences, and the opportunities and threats of using technology in classrooms. It also helps educators understand the education industry changes, identify their professional development goals, and acknowledge technology advancements in education.

## Courses in Level 2 - Continued



Courselet Titles

- Cultivating Creative Collaboration
- Turning
   Disengagement to
   Self-Determination
- Selecting High-Engagement
   Assessment Formats

# **Course 3:** Fostering Student Engagement in the Age of Digital Distraction

Motivation theories are important when we strive to understand why some learners perform better and thrive in school, and others fail to succeed or disengage themselves from learning. There is a need to study the advantages of promoting teamwork and collaborative discussions in classrooms.

Educators taking this course will explore the effect of peer and colleague collaboration in the Fourth Industrial Revolution and understand learners' motivation and how innovative pedagogical approaches increase learner engagement. It also helps educators understand how technology presents an opportunity to increase learner motivation through interactive participation options presented to them.



Courselet Titles

- Uniting Real-World Issues with Academic Outcomes
- Harnessing Technology for Community Good
- Seeking Evidence for Authentic Learning

# **Course 4:** Strengthening Real-World Relevance in the Classroom

The outside world has continuously evolved to require educators to incorporate real-world issues with a standard learning curriculum. Creating a more wholesome curriculum allows the youths to become agents of change in their communities worldwide.

Educators will analyze the shift in academic outcomes affected by the fast evolution of industries and how they can incorporate self-learning elements and innovation skills into lesson plans to help learners harness technology for the community's good. It also helps educators develop ways to assess learning as they adopt authentic learning strategies by crafting assessment plans to help learners be more successful in authentic learning contexts.



# Level 3 – Catalyst of Creative Mindsets

Level 3 enables educators to reimagine learning experiences with technology to empower learners to become confident innovators. Educators are introduced to creative teaching strategies which initiate critical reasoning skills for better decision-making. This level's contents provide educators with strategies in developing analytical thinking while stimulating creativity in learners with the use of data and emerging technologies.

Level 3 consists of three courses. Each course comprises three courselets with an expected total of six hours of professional development.

## Courses in Level 3



Courselet Titles

- Collecting and Using Problem-Driven Data
- Mapping Relationships with Data
- Facilitating Data-Inspired Discussions

## Course 1: Analytical Thinking Through Data

Data collection and visualization have an impact on the way educators provide information and how learners use it. Because of the delicacy of ethical data collection practices, it is important to study how data collection, visualization, and relationships with data affect learners in today's environment.

This course focuses on data collection and analysis - how data collection with the aid of technology can redefine teaching practices and provide a new learning experience. It also helps educators understand data visualization to provide ways to understand trends, outliers, and patterns in data and how emerging technology can extend classroom discussions.



Courselet Titles

- Designing Killer Experiments
- Simulating Immersive Role Play
- Powering Debates with Data

## Course 2: Critical Reasoning to Make Better Decisions

The ability to apply critical reasoning in any given situation provides a strong foundation for better decision-making. By introducing killer experiments, simulation models, evaluative thinking techniques and application of data, educators help learners build resilience when working on solution finding.

This course introduces educators to new ways of approaching problems. Using killer experiments, educators set learners up for success by going through failure as a necessity for improvement. Educators learn how to engage learners in visible thinking by simulating technology-supported role-play and powering through debates backed by innovation skills in data science.



Courselet Titles

- Generating Ideas Using Artificial Intelligence
- Prototyping Possibilities with Emerging Technologies
- Creating Digital Portfolios

# Course 3: Bridging the Creativity Gap

With the growth of emerging technologies comes a new source of possibilities for educators in creating a dynamic and creative classroom environment. To bridge the creativity gap, learners explore novel learning methods supported by artificial intelligence and other digital tools that enable idea generation and deep learning through modeling.

This course equips educators in idea generation techniques using innovation skills and various digital technologies. It also explores how learners' creativity in problem-solving can be nurtured through self-directed learning and crafting unique narratives charting their growth and achievement using prototyping and digital portfolios debates backed by innovation skills in data science.

# Level 4 – Mentor of Upgraded Mindsets

Level 4 introduces educators to the upgraded mindsets essential for learners to thrive in Industry 4.0 and successfully navigate the unknowns of tomorrow. While learning how educators can innovate for the future through powerful strategic thinking, they will also learn approaches towards nurturing and applying an Agile Mindset in teaching and learning. Educators will cultivate an entrepreneurial mindset by discovering the role of technology in creating value for the future.

Level 4 consists of three courses. Each course comprises three courselets with an expected total of six hours of professional development.

## Courses in Level 4



Courselet Titles

- Nurturing an Agile Mindset in Learners
- Managing Teams with Agile Tools
- Adapting Agile in Project-Based Learning

#### Course 1: From Waterfall to Agile Mindset

Being flexible and responsive to change is the only way to survive and evolve in today's world. It also means being resilient while emphasizing team effort in developing projects. In response to the changing environment outside classrooms, we look at how the Agile Mindset and its methodologies can prepare learners for succeeding in the outside world.

This comprehensive course aims to explore the Agile Mindset and how it applies to teaching and learning and prepare educators with the competencies and mindset to implement the Agile methodologies in the classroom successfully. It also helps educators understand how to apply the Agile Mindset and its methodologies to project-based learning approaches.



Courselet Titles

- Creating Visions of the Future
- Envisioning Future Possibilities
- Innovating for the Future



Teaching through forethought has become increasingly important in today's learning environment. With a rapidly changing world, forward and future thinking is needed to provide foresight for the next decade and beyond. It is important to help learners develop future thinking skills to help them cope with the possibility of a transient and volatile world.

This comprehensive course explores how current events divulge clues about what is to come and how to find opportunities to practice future thinking in the classroom. It explores how to create multiple scenarios resulting from drivers of change and build immersive stories for analysis and understanding. It also assists educators in developing plans for effecting the future.



Courselet Titles

- Cultivating the Curious Mind
- Creating Value for the Fourth Industrial Revolution
- Enhancing Communication with Digital Storytelling

## Course 3: From Follower to Entrepreneurial Mindset

Curiosity can be seen as a thing of value in learners. It allows them to explore their surroundings and make sense of their everyday experience. When harnessed properly, it can become a tool that helps educators expand and delve deeply into their learners' views. It is important to understand how to harness learners' curiosity and encourage storytelling to build innovators and forward thinkers.

This comprehensive course aims to learn the science behind curiosity and how it enables learning and drives innovation and explore the entrepreneurial mindset through tools to guide learners to create value. It also helps educators explore storytelling and discover ways to shape mindsets using storytelling.

# Intel® SFI Learning Platform

The SFI Learning Platform provides educators and administrators with access to a rich, interactive social learning environment to learn, share, collaborate and connect with a global population of educators. With system-wide reporting and analytics, administrators can access powerful insights to track and support the progress of their staff on behalf of their entire organization.

#### Learning

Interactive learning & completion certificates

#### **Resource Library**

Lesson plans, PDFs, videos, beginner's guides, presentations, and much more

#### **Live Chat**

Live 'study group' engagement, group discussions, moderated chat

#### **Community-Generated Content**

Shared lesson plans, best practices and an opportunity to connect with other professionals through the community



#### **Live Discussions**

Grouped by cohort, topic, subject, and thread

#### Live Classroom

Live training experience with streamed presenter, desktop sharing, polling, and live chat

#### **Insight Surveys**

Capture trends of the innovative approaches to learning and student development

#### **Intelligent Search**

Search categories and filters aligned to educators' interests







#### Navigate Intel SFI PD Contents

Navigate the whole PD curriculum, overview and detailed information about levels, courses/modules, and courselets

#### Download Syllabi

Choose the syllabus that meets your needs from a variety of formats – for the entire PD curriculum or by level, course, or module.

#### **Track Trainee Progress**

Information about trainee's progress and completion percentage of levels and courses

#### **Generate Certificates**

Generate course and/or level certificates for completed training, including training credit indicator

#### **Exchange Experiences**

Participate in discussions with fellow educators around the globe and share ideas and innovations

#### **Access Analytics**

Administrator users can track progress of trainees in their organization and generate metrics

# **Educator Certification**

# **Certification of Completion**

A Course Certificate of Completion is awarded to educators who complete each course. To complete each course, educators will have to complete all courselets and tasks assigned.

A Level Certificate of Completion is awarded to educators who complete all courses within a level.

The various Certificates of Completion are available on the Intel SFI platform and can be downloaded in a pdf version.

## Level Certificates - On completion of each level



# **Digital Badges**

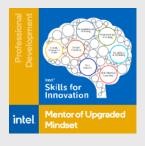
Digital Badges are also awarded to educators who complete courses and levels. These badges can be shared on social media and digital portfolios.

## Level Badges - On completion of each level









# Ready to Get Started?

Intel® SFI Professional Development is designed to meet the evolving pedagogical needs of educators who are preparing learners for a future workforce. The program is available under license from Intel.

For more information about how to deploy Intel SFI Professional Development in your education environment, please contact your Intel Technology Provider.

For more information, visit skillsforinnovation.intel.com

Intel technologies may require enabled hardware, software or service activation.

No product or component can be absolutely secure.

Your costs and results may vary.

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