

SPRINGER ENGINEERING

Business Experience Certificate

Purdue College of Engineering · Enabled by the Charles E. and Louise W. Springer Endowment

■ **Virtual Callout — Thursday, April 16, 5–6 PM Register to attend and learn more about the Certificate.**

■ **Coming Soon — Proposed Certificate expected to be available in 2027. Interested students can get a head start by taking available courses in 2026–2027 and fill out the interest form to be notified when the Certificate launches.**

About the Certificate

Engineering drives the world's most important decisions — from launching new technologies to allocating capital and leading organizations. The **Springer Engineering Business Experience Certificate** prepares students to operate at the intersection of engineering and business, developing the judgment needed to make decisions that create value in real-world contexts.

The engineers who thrive early in their careers aren't just technically strong — they can frame tradeoffs, build a business case, lead a team under pressure, and communicate with stakeholders at every level. Through a combination of executive engagement, applied coursework, and team-based challenges, students learn how engineering work translates into financial, strategic, and organizational outcomes.

The **9–10 credit Certificate** will be open to all engineering students and is designed to complement technical depth with business insight, preparing graduates for roles in engineering leadership.

The logic of professional capability development:

Learn → Apply → Be Tested → Own → Reflect → Signal

The Certificate includes truly unique aspects:

- **Decision-centered experiences:** You learn tradeoffs, judgment, and consequences.
- **Portfolio requirement:** A collection of artifacts and outputs communicating what you have done — acting as a storytelling asset, a placement advantage, and a proof-of-work system.
- **Executive Forum + practice combo:** First you interact with engineering executives to learn "how leaders think," then you practice that in your own work throughout the Certificate.

What You'll Gain

- Engage directly with engineering executives and technology leaders through the Springer Executive Forum
- Learn the financial, accounting, and strategic frameworks that shape how engineering work gets evaluated and resourced
- Build and defend structured business cases tied to real technical, innovation, and organizational challenges
- Compete in team-based challenges that test your judgment, communication, and execution under time pressure
- Curate a Leadership Portfolio — a career-facing artifact that documents your development as a business-ready engineer
- Go through a transformational experience AND earn practical skills in the business of engineering

Certificate Structure (Proposed)

#1 — Executive Practice & Industry Insight (2 cr. — required)

The Springer Engineering Executive Forum (ENGR 30301) is an interactive series featuring engineering and technology leaders. Students analyze real leadership decisions, tradeoffs, failures, and recoveries — with a focus on the decision-making logic behind them.

#2 — Business of Engineering Foundational Logic (2 cr. — choose one)

Build the financial and accounting foundation that every engineering leader needs.

- Finance for Engineers (FIN 20500)
- Accounting for Engineers (ACCT 20500)

#3 — Communicating and Leading Self & Teams (2–3 cr. — choose one)

Develop your leadership identity, communication skills, teamwork capabilities, or entrepreneurial confidence.

- Leadership in a Changing World (OBHR 44362)
- Storytelling with Data (OBHR 49300)
- Strategic Business Writing (OBHR 33500)
- Venture X1 — Challenge X: Discovering Meaningful Problems Worth Solving (STRT 312)

#4 — Making the Business Case (3 cr. — choose one)

Develop, justify, and defend business cases in executive-ready language. Courses span entrepreneurship and venture design, marketing management, management consulting, and student-managed investing.

- Making the Business Case (STRT 220)
- Venture X2 — Solution X: Designing and Building Product to Address Challenge X (STRT 313)
- Marketing Management (MKTG 324)
- Student-Managed Venture Fund (STRT 51010)
- Consulting Tools & Skills (STRT 355)
- Springer Engineering Business Leadership Internship (OPP 34999)

#5 — Competitions & Challenges (0 cr. — choose one (OPP 14100))

Participate in at least one approved time-compressed, team-based competition.

- Burton D. Morgan Venture Concept Competition
- PowerShift Case Competition
- Data 4 Good Case Competition
- Big Ten Case Competition
- Midwest Entrepreneurship Case Competition
- Other approved innovation or research pitch competitions

#6 — Leadership Portfolio (0 cr. — required (OPP 34100))

Throughout the certificate, students curate a Leadership Portfolio including business cases and financial analyses, decision memos, leadership and ethical reflections, executive insight briefs, and competition and practicum artifacts. It serves as both a program assessment and a professional artifact you'll carry into your career.

Requirements (Proposed)

1. Complete ENGR 30301 – Springer Engineering Executive Forum (2 cr.)
2. Complete one course in **Business of Engineering Foundational Logic** (2 cr.)
3. Complete one course in **Communicating and Leading Self & Teams** (2–3 cr.)
4. Complete one course in **Making the Business Case** (3 cr.)
5. Participate in one approved **Competition or Challenge** (0 cr.)
6. Curate your **Leadership Portfolio** throughout the program (0 cr.)

Available Courses — 2026–2027

Interested students can get a head start on their journey by taking any of the below available courses. No particular order required.

Fall 2026

Course	Title	Credits	Satisfies
ENGR 30301	Springer Engineering Executive Forum	2 cr.	Required gateway course
ACCT 20500	Accounting for Engineers	2 cr.	Business of Engineering Foundational Logic
STRT 31200	Venture X1: Discovering Meaningful Problems Worth Solving	3 cr.	Communicating and Leading Self & Teams
OBHR 44362	Leadership in a Changing World	3 cr.	Communicating and Leading Self & Teams
OBHR 335	Strategic Business Writing	3 cr.	Communicating and Leading Self & Teams

Course	Title	Credits	Satisfies
STRT 51010	Student-Managed Venture Fund	3 cr.	Making the Business Case
MKTG 32400	Marketing Management	3 cr.	Making the Business Case
STRT 35500	Consulting Tools & Skills	3 cr.	Making the Business Case

Spring 2027

Course	Title	Credits	Satisfies
ENGR 30301	Springer Engineering Executive Forum	2 cr.	Required gateway course
FIN 20500	Finance for Engineers	2 cr.	Business of Engineering Foundational Logic
OBHR 493	Storytelling with Data	2 cr.	Communicating and Leading Self & Teams
OBHR 44362	Leadership in a Changing World	3 cr.	Communicating and Leading Self & Teams
OBHR 335	Strategic Business Writing	3 cr.	Communicating and Leading Self & Teams
STRT 220	Making the Business Case	3 cr.	Making the Business Case
STRT 313	Venture X2: Designing and Building Product to Address Challenge X	3 cr.	Making the Business Case
MKTG 32400	Marketing Management	3 cr.	Making the Business Case
STRT 35500	Consulting Tools & Skills	3 cr.	Making the Business Case

Full Course Guide — Fall 2026 & Spring 2027

#1 — Executive Practice & Industry Insight (2 cr. — required)

ENGR 30301 — Springer Engineering Executive Forum

Fall 2026 or Spring 2027 · 2 credits

A bi-weekly forum where accomplished engineering alumni — now executives across tech, finance, consulting, and more — share the real story behind their careers. Candid conversations, in-class market simulations, and direct engagement with leaders who have made the jump from engineering to business. You'll leave able to read financial statements, identify executive career pathways, and ask sharper questions about decisions and tradeoffs.

#2 — Business of Engineering Foundational Logic (2 cr. — choose one)

ACCT 20500 — Accounting for Engineers

Fall 2026 · 2 credits · Kevin Koharki

Learn how accounting information drives real decisions — assessing performance, evaluating investments, and comparing firms against rivals. Graded on two projects and participation: no exams. You'll walk away able to analyze financial statements and build Excel models to support business and investment decisions.

FIN 20500 — Finance for Engineers

Spring 2027 · 2 credits · Alex Boquist

The financial fluency every leader needs: reading financial statements, time value of money, discounted cash flow, capital budgeting, and project selection. Heavy use of Excel throughout. You'll walk away able to evaluate investments, interpret financial data, and decide which projects a firm should fund — and why.

#3 — Communicating and Leading Self & Teams (2–3 cr. — choose one)

OBHR 44362 — Leadership in a Changing World

Fall 2026 & Spring 2027 · 3 credits

Evidence-based course built around practice, feedback, and self-reflection. You'll assess your own leadership strengths, explore what effective leadership looks like in real organizations, and develop a personal leadership philosophy grounded in research.

OBHR 49300 — Storytelling with Data

Spring 2027 · 2 credits · Doug Pruim

Turns data into decisions. You'll learn frameworks for understanding your audience, principles of visual information processing, and hands-on data visualization skills. Final project: a full storytelling-with-data deliverable of your own design.

OBHR 33500 — Strategic Business Writing

Fall 2026 & Spring 2027 · 3 credits

A targeted communication course. You'll practice executive-level writing, confident oral communication, and the interpersonal leadership behaviors that matter most when working with executives, clients, and cross-functional teams.

STRT 312 — Venture X1: Challenge X — Discovering Meaningful Problems Worth Solving

Fall 2026 · 3 credits · Kostas Grigoriou

Pick a problem space you care about and go deep — through stakeholder interviews, market immersion, and customer discovery — until you've identified a validated problem worth building a venture around. The first course in the two-part Venture X sequence.

#4 — Making the Business Case (3 cr. — choose one)

STRT 220 — Making the Business Case

Spring 2027 · 3 credits · Dave Randich

Analyze real business cases in teams and present recommendations in the format used by top consulting firms and senior executives. Taught by a former President/CEO of four organizations across the US, Europe, and Asia. Ideal for anyone targeting case competitions, consulting, or executive roles.

STRT 313 — Venture X2: Solution X — Designing and Building Product to Address Challenge X

Spring 2027 · 3 credits · Kostas Grigoriou

Starting with a validated problem, you'll design and test your way to a working MVP with a tested business model. Rapid prototyping, real customer feedback loops, customer sales calls, supported by a product-building budget. The second course in the Venture X sequence.

MKTG 324 — Marketing Management

Fall 2026 · 3 credits · Stephen Leitch

A foundational course covering customer behavior, segmentation, positioning, pricing, promotion, and competitive analysis. You'll develop intuition for analyzing markets and making strategic decisions — and build a foundation for advanced marketing electives.

STRT 51010 — Student-Managed Venture Fund

Fall 2026 · 3 credits · Matthew Lynall

Act as a venture investment analyst reviewing real startup pitch decks, conducting due diligence, and making actual equity co-investments from a live fund. Includes one-on-one interviews with 8–10 active early-stage investors. Requires an NDA. One of the most distinctive courses on campus.

STRT 355 — Consulting Tools & Skills

Fall 2026 · 3 credits · John Burr

Learn the structured problem-solving process used by top consulting firms — diagnosing root causes, analyzing complex problems, and communicating recommendations clearly. Practical skills for any manager, not just consultants.

#5 — Competitions & Challenges (0 cr. — choose one, OPP 14100)

Participate in at least one approved, time-compressed, team-based competition. Complete a pre-experience goal-setting survey and a post-experience reflection by taking the 0-credit OPP 14100. Approved options include the Burton D. Morgan Venture Concept Competition, PowerShift Case Competition, Data 4 Good Case Competition, Big Ten Case Competition, Midwest Entrepreneurship Case Competition, and other approved innovation or pitch competitions.

OPP 34999 — Springer Engineering Business Internship (0 credits): Satisfy the Competition or Challenge requirement through an approved startup, co-op, or industry leadership placement or role. Must submit a reflection and supervisor's assessment.

#6 — Leadership Portfolio (0 cr. — required, OPP 34100)

Built continuously throughout the certificate — not assembled at the end. Includes business cases and financial analyses, decision memos, leadership reflections, executive insight briefs, and competition artifacts. Submitted at completion as both a program assessment and a professional career artifact.

ENGR 30301 — Gateway Course Spotlight

This is the **gateway course** and is required for engineering students pursuing the Springer Engineering Business Experience Certificate. It is also open to all Engineering, Computer Science, and IBE (Integrated Business & Engineering) undergraduates regardless of intent to pursue the Certificate.

This course provides undergraduate engineering students access to accomplished executives who began their careers in technical fields and went on to lead in business, technology, finance, consulting, healthcare, energy, and other global industries. Through candid conversations, small-group meals, class activities, and interactive discussions, you get to see how an engineering foundation can evolve into impactful leadership across industries.

What Past Students Are Saying

“It was inspiring to hear from engineers who didn’t follow a linear path and still became successful in business. It made me realize how many different possibilities there are for my own career.”

“One speaker showed that leadership and vulnerability can go hand in hand. Hearing about loss, values, and real challenges made the lessons feel genuine and deeply impactful.”

“The guest speakers didn’t just talk about success — they gave real frameworks for decision-making and leadership that I’m already applying to my own career choices.”

“Hearing how speakers started as engineers and transitioned into leadership and business roles was incredibly motivating and helped clarify what I want to pursue after graduation.”

“The chance to ask questions and interact with accomplished alumni made the experience feel personal and meaningful. It wasn’t a lecture — it was real mentorship.”

Ready to get started? Register for ENGR 30301 — Springer Engineering Executive Forum (offered both Fall and Spring) — the gateway to the Certificate!

Express your interest in adding the Certificate to your plan of study when it becomes available.

Questions? Contact **Prof. Kostas Grigoriou**, Director of the Springer Initiative

kostasg@purdue.edu