



جامعة بيروت العربية
BEIRUT ARAB UNIVERSITY



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ELEGANT

**Enhancing IT Graduates Employability through Skills
Development & Curricular Innovation**

Webinar

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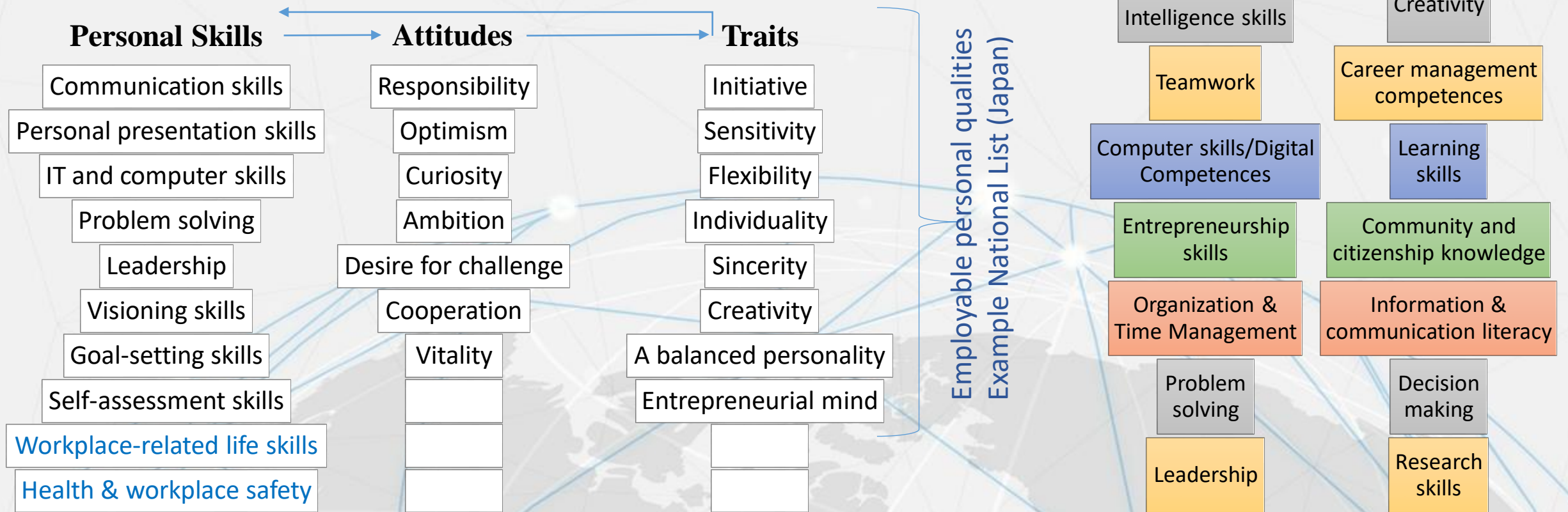
By Prof. Sobhi Abou Chahine
Prof. Ali El-Zaart and Dr. Issam Damaj





Engineering Education & Employability

- General list of employability skills
- Choice of skills depends on job market (Example national list, Japan)
- Essential input in curriculum design to enable good professional practice

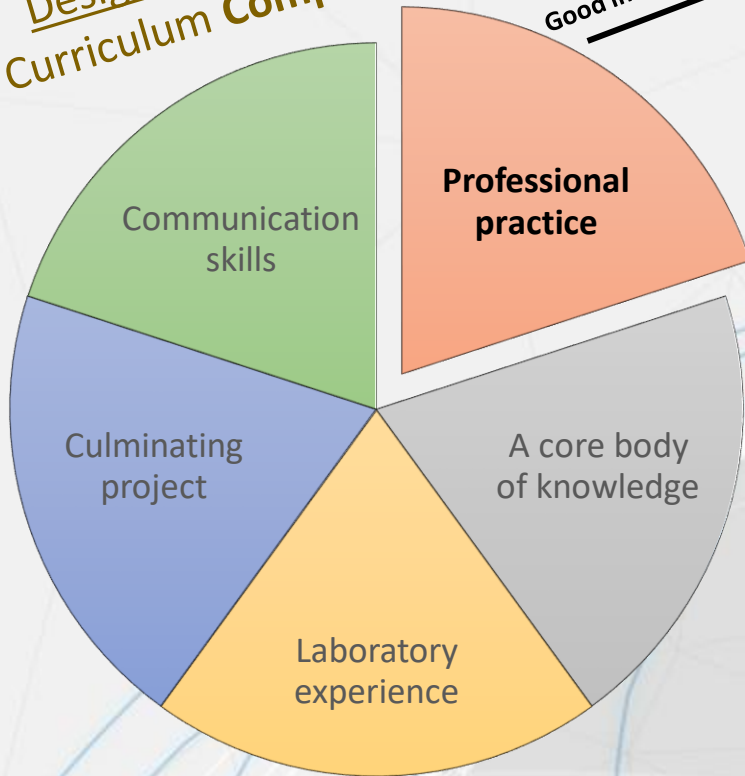




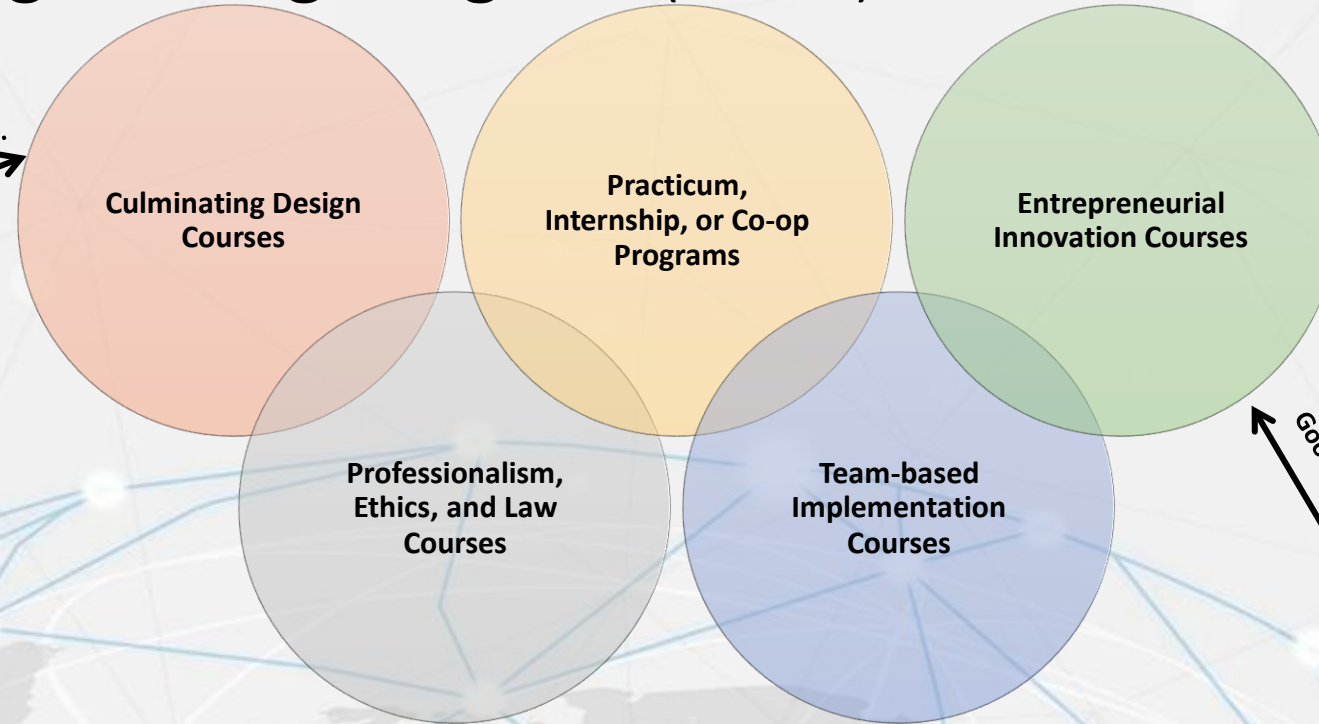
Integration into Curriculum: BAU Computer Engineering Program (2019)

Design Perspective 2 Key Characteristics of Computer Engineering Graduates

Design Perspective 1 Curriculum Components



Good integration op.



System Level Perspective

Depth and Breadth

Design Experiences

Use of Tools

Professional Practice

Communication Skills

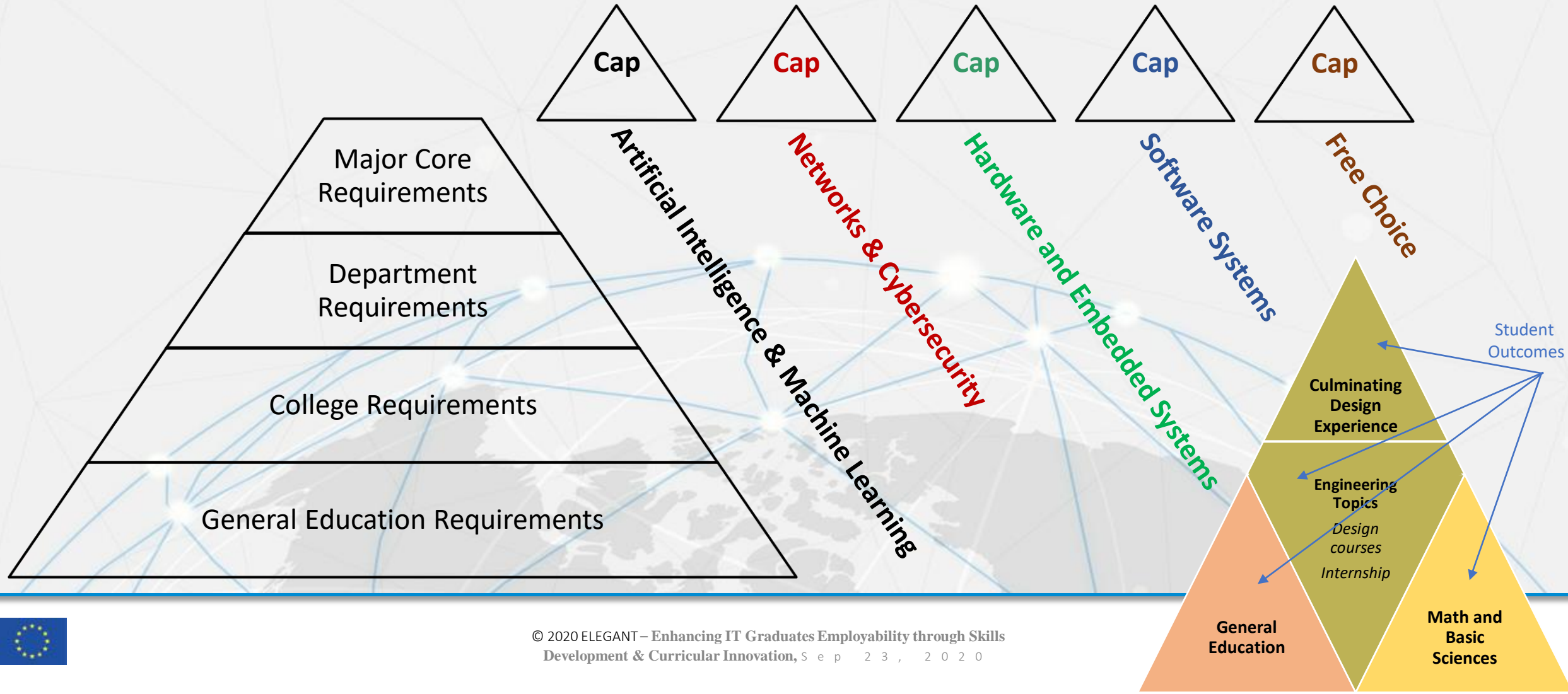
Good integration op.

Well-articulated in ABET EAC Student Outcomes 1 through 7
Well-observed in ACM/IEEE Curriculum Recommendations, Computer Engineering, 2016.





Capstone and Course Design Projects: BAU Computer Engineering Program (2019)





BAU Computer Science curriculum development to embed employability skills

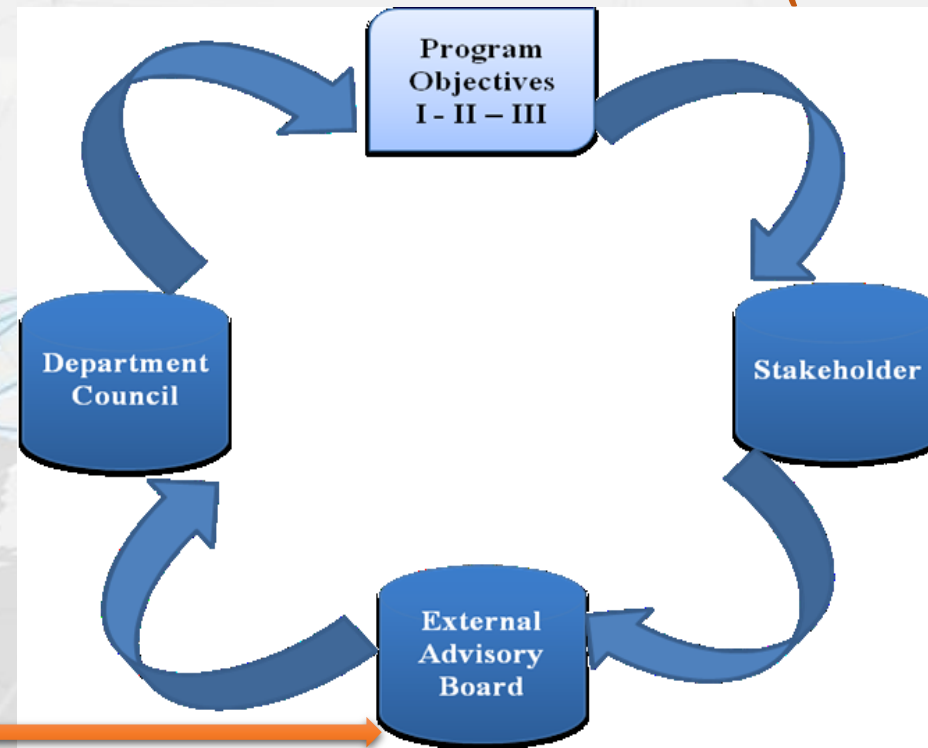
B.Sc program (100 Credit hours):

- Beirut (137 students),
- Debbieh, (48 students)
- Tripoli (68 students)

Total : 253 active CS students

B.Sc. Computer Science Program **accredited by ABET** since 2013

Process for Revision of CS curriculum (CS Program Objectives)



Stakeholders :

- Current undergraduate students
- Faculty members
- Alumni of our program
- National and regional employers in the field of computer science
- University administration

External Advisory Borad :

Members represent employers in the market and discuss the PEOs and raise important issues to be looked forwardly by the department





Final Year Project industry-related ideas initiatives BAU Computer Science Program



Final Year Project (one year) : Two summative courses that should include all topics of fundamental undergraduate courses.



Internship: Collaboration between BAU and Different **industries** (as objective)

- Provide students with the opportunity to participate in **real-life software development projects**
- Give students a better chance for finding software development **jobs after graduation.**
- Pave the road for large and much needed student-oriented **research work in Lebanon.**
- Support **innovation** and capitalize on it



- **More than 90%** of CS graduate students are now working on the domain of IT in Lebanon and outside
- One CS student established a his **own IT company (BAU the Center for Entrepreneurship)**





Integration of online courses/certificates in computer science curriculum BAU Computer Science Program

- BAU Center for Continuing and Professional Education.

Short courses (CCPe Certificate)

- Android design and network programming
- Mobile Maintenance
- Evolution of the G technologies: 3G/4G/LTE
- BlockChain
- Data Science

Professional Courses

- CCNA
- ITE
- CCNA Security
- IoT fundamentals
- Cybersecurity Essential

