



CURRICULUM DESIGNER

PRESENTED BY:

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NATIONAL INSTITUTE OF TECHNOLOGY PUDUCHERRY

COMPUTER SCIENCE AND ENGINEERING



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PROBLEM STATEMENT

DESIGNING AND MAINTAINING ACADEMIC SYLLABI IS A TIME-CONSUMING, MANUAL, AND OFTEN INCONSISTENT PROCESS FOR FACULTY AND INSTITUTIONS. EDUCATORS STRUGGLE TO ALIGN COURSE CONTENT WITH LEARNING OUTCOMES, ACCREDITATION STANDARDS, AND EVOLVING INDUSTRY TRENDS—LEADING TO OUTDATED, MISALIGNED, OR INCOMPLETE CURRICULA


PROPOSED SOLUTION : AN AI-POWERED SYLLABUS AND CURRICULUM DESIGNER THAT AUTOMATES AND ENHANCES THE ENTIRE COURSE PLANNING PROCESS. IT ASSISTS FACULTY BY MAPPING TOPICS TO LEARNING OUTCOMES, SUGGESTING UPDATED CONTENT AND ASSESSMENTS, STRUCTURING WEEKLY PLANS, AND FORMATTING READY-TO-USE SYLLABI—ALL ALIGNED WITH ACADEMIC GOALS AND COMPLIANCE STANDARDS.

TECHNOLOGY USED

- IBM CLOUD LITE SERVICES
- NATURAL LANGUAGE PROCESSING (NLP)
- IBM GRANITE MODEL



IBM CLOUD SERVICES USED

- IBM CLOUD WATSONX AI STUDIO
 - IBM CLOUD WATSONX AI RUNTIME
 - IBM CLOUD AGENT LAB
 - IBM GRANITE FOUNDATIONAL MODEL
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WOW FACTORS

THIS AI-POWERED SYLLABUS DESIGNER HELPS FACULTY CREATE STRUCTURED, OUTCOME-ALIGNED, AND UP-TO-DATE COURSE PLANS. IT STREAMLINES CURRICULUM DEVELOPMENT BY AUTOMATING CONTENT STRUCTURING, ASSESSMENT PLANNING, AND RESOURCE SUGGESTIONS. IDEAL FOR ACADEMIC INSTITUTIONS AIMING FOR CONSISTENCY, QUALITY, AND ACCREDITATION COMPLIANCE.

KEY FEATURES:

- MAPS TOPICS TO LEARNING OUTCOMES AND ACCREDITATION STANDARDS
- SUGGESTS LATEST TOPICS BASED ON ACADEMIC AND INDUSTRY TRENDS
- BUILDS WEEKLY OR SESSION-WISE COURSE STRUCTURES AUTOMATICALLY
- RECOMMENDS TEXTBOOKS, TOOLS, AND DIGITAL RESOURCES
- DESIGNS BALANCED ASSESSMENTS LIKE QUIZZES, PROJECTS, AND EXAMS
- FORMATS SYLLABI FOR EXPORT IN CLEAN, STANDARDIZED TEMPLATES

END USERS

- COLLEGE AND UNIVERSITY FACULTY
- CURRICULUM DESIGNERS & ACADEMIC COORDINATORS
- INSTRUCTIONAL DESIGNERS
- EDUCATION ADMINISTRATORS & ACCREDITATION TEAMS
- NEW FACULTY OR GUEST LECTURERS
- STUDENTS

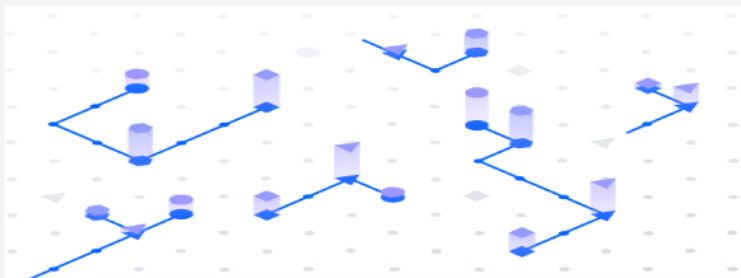
RESULT

Agent preview

 Curriculum Designer 08:37 PM

Welcome to Curriculum Designer

Hi, I'm your AI buddy! I help design smart, aligned, and updated syllabi—fast, easy, and effective.



Sample questions

Can you generate a draft syllabus for my course on Machine Learning?



How can I align my course topics with the program learning outcomes?



Type something...



Agent preview

 You: 08:38 PM

What assessments should I include for a 12-week undergraduate course?

 Curriculum Designer 08:38 PM

Designing assessments for a course depends on the learning outcomes and the subject matter. However, for a 12-week undergraduate course, a balanced mix of formative and summative assessments can be beneficial. Here's a suggested structure:

1. **Quizzes (20%):** Short quizzes at the end of each module to check understanding of the core concepts.
2. **Midterm Exam (20%):** A comprehensive exam covering material from weeks 4-6.
3. **Group Project (30%):** A project that requires students to apply the knowledge and skills they've learned. This could be a research paper, a presentation, or a practical application, depending on the subject.
4. **Participation (10%):** Regular class participation to encourage engagement and active learning.
5. **Final Exam (20%):** A comprehensive exam covering the entire course material.

RESULT

Curriculum Designer ✓ Deployed Online

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Sample questions

Can you generate a draft syllabus for my course on Machine Learning?



How can I align my course topics with the program learning outcomes?



What assessments should I include for a 12-week undergraduate course?



Can you suggest the latest industry-relevant topics for my curriculum?



Type something...



CONCLUSION

- AUTOMATES AND STREAMLINES SYLLABUS CREATION, REDUCING MANUAL EFFORT FOR EDUCATORS.
- ALIGNS COURSE CONTENT WITH LEARNING OUTCOMES AND ACCREDITATION STANDARDS EFFECTIVELY.
- KEEPS CURRICULA UP-TO-DATE WITH THE LATEST ACADEMIC AND INDUSTRY TRENDS.
- ENHANCES QUALITY AND CONSISTENCY ACROSS DEPARTMENTS AND PROGRAMS.

FUTURE SCOPE

- INTEGRATION WITH LEARNING MANAGEMENT SYSTEMS (LMS)
- SUPPORT FOR OUTCOME-BASED EDUCATION ANALYTICS
- COLLABORATIVE CURRICULUM BUILDING
- VOICE AND MULTILINGUAL SUPPORT
- STUDENT FEEDBACK INTEGRATION

IBM CERTIFICATION-GETTING STARTED WITH ARTIFICIAL INTELLIGENCE

In recognition of the commitment to achieve
professional excellence



Hanson Lucius

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



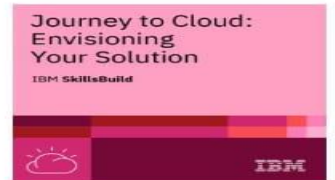
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IBM CERTIFICATION-RAG LAB

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Hanson Lucius

for the completion of


**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 24 Jul 2025 (GMT)

Learning hours: 20 mins



GITHUB LINK

<https://github.com/HansonLucius/Curriculum-Designer>



The image features a light gray background with a subtle radial gradient. In the top-left and bottom-right corners, there are clusters of realistic water droplets of various sizes, some overlapping. A faint, circular, embossed-like pattern is visible in the upper center of the image.

THANK YOU