THE NEW AIMS FOR BRAZILIAN CURRICULUMS IN ENGINEERING COURSES

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NEW WORLD SCENERY · NEW ENGINEER

ENGINEERING LEARNING
NEW CURRICULUMS PROJECTS

BRAZIL

1996: NEW FEDERAL LAW FOR EDUCATION
2002: NEW GUIDELINES CURRICULUM FOR ENGINEERING

→ BASED ON SKILLS ←

THE CURRICULM, based on

1. Learnig experincies
2. Incorporated by the student during participative process
3. Fundamented on an integrated learning program

→ A new design for curriculum structure
Innovators experiencies

THE PROPOSAL

LEARNING PROCESS
PROFESSOR
> HOURS

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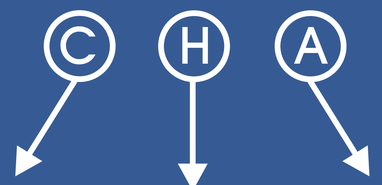
STUDENT LEARNING
CENTERED ON THE STUDENT
< HOURS

ENGINEER PROFILE

CURRICULUM BASED ON SKILLS



Connection theory → practice
Solve problems
Working in team
Process management
Design and interpretated results
Oral and written communication
Economic viability
Based on socials, culturals, legals and environment aspects

Continous Education
Entreterpanership
Ethics and environment commitement

CURRICULUM STRUCTURE

CONTENTS

BASICS CONTENTS (30%)
Fundamentals sciencies

PROFESSIONALS CONTENTS (15%)
Engineering formation

SPECIFCS CONTENTS
Engineering modalities

CURRICULUM PRACTICIES

Obligatory
Under supervision

FINAL WORK

Obligatory
Sinthesys and integration
Under orientation

CHALLENGES

INNOVATORS CURRICULUM STRUCTURES

Integrated and sistemic vision
Focus in ideas and criativity

PEDAGOGICAL APPROACH

Centered on the student
Professors tutorial activities
Multidisciplinarity
→ Based on results → profile

CURRICULUM DESIGN

GENERALIST
INTEGRATED VISION
CENTERED ON STUDENT

Professional disciplines since the begining levels
Integration and conclusion works
Orientated activities
Out classroom activities
Complementary activities
Optional disciplines
Changing professor's posture
Participative posture