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Exploration of Teaching Reform in Landscape Engineering Based on Cultivating Applied Talents

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Abstract: As an important backbone course in the field of landscape architecture,the course of landscape engineering covers a lot of knowledge in engineering design and construction,and one of its characteristics is its rich practicality.After years of trial and error,the teaching team has successfully made significant adjustments to the landscape engineering course for undergraduate teaching work,including the course structure,content,and teaching methods,in order to achieve the best educational results.

Keywords: Curriculum Ideological and Political Education; Landscape Engineering; Reform in Education

Fund Project:

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Introduction

Cultivating talents with both moral and talent is the core mission of universities.The core of the curriculum ideology is to enable learners to comprehensively develop their morality,intelligence,physical fitness,aesthetics,and labor,from“professional success”to“ideological adulthood”,enhance their professionalism,and better utilize the knowledge they have learned to put it into practice.

1. Reforming the Curriculum Structure and Enhance Teaching Pertinence

In the past,due to the limitations of course arrangement,course teaching could not fully reflect the practicality and practicality of landscape engineering.It could not meet the learning requirements of students for landscape engineering construction drawing design and construction management,nor could it meet the high requirements of the current market for professional and technical personnel.After in-depth investigation,it can be found that the completion of landscaping projects must go through a series of steps.The first step is to write a detailed project strategy.The second is the careful planning of landscape,color,and spatial layout,as well as meticulous construction,ensuring the smooth completion of the project.Therefore,landscape companies attach particular importance to talents who possess these professional knowledge.In response to the current market development trend,the teaching plan has been redesigned to meet the requirements of the enterprise.The planning and design of landscaping engineering schemes,construction drawing design,and construction management have been prioritized and included in different courses to better meet the actual requirements of the industry.

2. Reexamining the Teaching Content and Shift the Focus to Construction Drawing Design to Improve Teaching Quality

2.1 Paying attention to the study of key chapters and achieve targeted learning

This course covers six chapters,namely earthwork,garden roads,garden water supply and drainage,garden water features,rockeries,and planting.It explains the basic knowledge of these fields in a simple and profound manner,including design principles,practical operation processes,and technical requirements.However,due to the limitations of classroom time,it

is not possible to fully teach all of this knowledge.The focus of the teaching is on the knowledge required for future work,such as focusing on the earth engineering,garden road engineering,garden water landscape engineering,and mountain and stone landscape engineering with distinct garden characteristics.Water supply and drainage belong to concealed engineering,and the characteristics of the garden are not obvious.Therefore,the design and calculation of specialized water supply and drainage projects are weakened,and only the key points of garden water supply network layout and garden drainage methods are introduced.The teaching schedule has been reduced from the original 10 class hours to 6 class hours.The planting project only introduces the content of garden plant planting construction drawings and seedling table preparation,and deletes the section on big tree transplantation and tree and shrub planting that has already been discussed in the course of"Garden Tree Cultivation". The class hours have been reduced from the original 8 hours to 4 hours.The content of flower bed masonry engineering and garden greening landscape engineering has been added.

2.2 Keeping up with industry development and improving landscape design capabilities

Flower beds are often used in landscaping and greening of government agencies.Therefore,the content of hard landscape design for flower beds is added to the teaching of landscape engineering.The main purpose of increasing the content of landscaping and landscape engineering is to cultivate students'comprehensive application ability.Through the reform of teaching content,the teaching content of the landscape engineering course has been changed into two parts:single project design of landscaping and comprehensive engineering design.The design of individual projects includes terrain design,garden road paving and linear design,small waterscape design of gardens,stone sketch design,flower bed masonry construction drawing design,planting construction drawing design,etc.Comprehensive engineering design refers to the construction drawing design of garden landscape engineering that includes the above content.The reform of these teaching contents is beneficial for students to systematically master the design content of garden engineering construction drawings,so as to align teaching with the personnel needs of garden enterprises.

3. Reforming Practical Teaching and Highlight Project-based Teaching

3.1 Leading Learning with Interest

In today's teaching process,students do not like to memorize abstract and empty theoretical knowledge.On the contrary,they prefer skill training that allows them to conduct practical operations.Therefore,the research group has decided to adopt a more practical approach to teaching these skills,so that they can find a balance between theoretical learning and practical operation. The specific method is to have students and teachers complete some challenging practical training tasks together,and let them demonstrate their strengths in these tasks.Six independent teaching courses are provided to students to cultivate their engineering skills,and one integrated teaching course is also provided to help students systematically master engineering technology. According to the teaching content of different stages,students are encouraged to learn different engineering techniques,including basic engineering,building engineering,greening engineering,landscape engineering,pipeline engineering,and flower bed engineering.

3.2 Providing landscape design sites to enhance practical skills

Drawings related to waterscape design have been provided,including detailed drawings of pools,fountains,and other related drawings.Through training in waterscape design,students are trained in construction techniques,including the construction of fountain pools,installation of spray systems,and control of water flow.In addition,the design of flower bed masonry drawings has been carried out to help students better understand and master the construction techniques of garden architecture.In the later stage of teaching,after the completion of individual training,comprehensive training can be implemented.Comprehensive project training is to enable students to design specific garden projects in a real environment,such as building a small amusement park on a certain plot of land on the campus of Lingnan Normal University.Students are required to draw construction drawings of all facilities based on the winning design plan of the small amusement park.The construction drawings of the small amusement park include the construction drawings of various individual projects such as roads,plants,mountains and rocks,and water bodies.Students complete comprehensive practical training projects based on the corresponding individual project training in class,by consulting materials and conducting actual inspections.The comprehensive practical training project makes classroom teaching more practical in landscape engineering,and can effectively improve students'ability to apply the knowledge they have learned to specific landscape engineering design and construction.

Conclusions:

Through in-depth research,it can be found that in today's engineering education environment,the goal is to cultivate talents with comprehensive qualities in morality,intelligence,physical fitness,aesthetics,and labor.Therefore,efforts should be made to integrate this goal into the curriculum system,so that every student can gain growth from it to achieve comprehensive development in morality,intelligence,physical fitness,aesthetics,and labor,so as to better serve the social needs of the country and shoulder the historical mission of promoting national rejuvenation.After redesigning and adjusting the course of landscape engineering,the focus is on cultivating students'practical operational abilities to meet the needs of the industry.

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