

Theoretical Construction and Practical Strategies of the “Four-Dimensional Integrated” Curriculum Ideology and Politics Teaching Model for Urban Geography

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Abstract: Strengthening the construction of curriculum ideology and politics is a key initiative for higher education institutions to fulfill the fundamental task of fostering virtue through education in the new era. From three dimensions, including disciplinary attributes, value logic, and cognitive laws, this paper sorts out the internal logic behind the construction of the “Four-Dimensional Integrated” curriculum ideology and politics model for Urban Geography. Based on the curriculum content, it constructs a design framework for this teaching model. Finally, from the four perspectives of teaching content, teaching methods, practical teaching and evaluation mechanism, it puts forward operable in-depth collaborative practical paths under the “Four-Dimensional Integrated” curriculum ideology and politics model, providing references for advancing the goals of fostering virtue through education and cultivating core literacy in geography.

Keywords: Urban geography; “Four-Dimensional Integrated”; Curriculum ideology and politics

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1. Introduction

Strengthening the construction of curriculum ideology and politics constitutes a pivotal measure for higher education to fulfill the fundamental mission of fostering virtue through education in the new era. As an important branch of modern geography, Urban Geography focuses on the laws of temporal-spatial evolution of cities and their interaction mechanisms^[1]. As a core course investigating the formation, development and spatial evolution rules of cities, its main knowledge covers urban development history, urbanization, urban functions, urban hierarchical structure, urban spatial distribution, sustainable urban development, etc. These contents are deeply aligned with major national strategies such as promoting coordinated regional

development, optimizing the allocation of urban and rural resources, and advancing the development of new-type urbanization, thus endowing the discipline with an irreplaceable advantage in value guidance.

This paper attempts to construct a “Four-Dimensional Integrated” curriculum ideology and politics teaching model integrating patriotism and national sentiment, innovative thinking, craftsmanship spirit and geospatial literacy. This model is not a simple superposition of the four dimensions; instead, it achieves in-depth coupling based on the disciplinary characteristics of Urban Geography and talent cultivation objectives. It aims to provide a systematic theoretical framework and practical paths for the curriculum ideology and politics construction of Urban Geography, facilitating the deep integration of ideological and political education with professional teaching.

2. Internal logic for constructing the “Four-Dimensional Integrated” curriculum ideology and politics model of urban geography

The theoretical foundation of the model can be interpreted from three layers: disciplinary attributes, value logic and cognitive laws.

2.1. Disciplinary attribute dimension: Inherent ideological and political endowments of urban geography

The research object of Urban Geography determines its intrinsic affinity with ideological and political education. As the spatial carrier of human civilization, the formation, development, organization and evolution of cities represent not merely geographical phenomena, but comprehensive manifestations of social processes, historical progress and cultural accumulation ^[2]. From the perspective of disciplinary history, China’s Urban Geography has been closely linked to national strategic demands since its inception. Since the reform and opening-up, urban geographers have actively participated in urban planning practices, integrating methodologies such as “analyzing urban development from a regional perspective”, “conducting comprehensive socio-economic analysis of cities” and “diagnosing urban problems and proposing targeted solutions” into planning practices, and gradually forming a theoretical system of Urban Geography with Chinese characteristics ^[3-5]. Core research threads of Urban Geography include the driving mechanisms of urbanization, regional organization of urban systems, internal urban spatial structure, and dynamic evolution of urban-rural relations. These academic propositions go far beyond purely objective spatial analysis; they are intrinsically connected with major value propositions such as national strategic layout, rural revitalization, balanced social development and ecological civilization construction. This indicates that knowledge teaching of Urban Geography inherently contains potential for value transmission, and the core task lies in transforming such potential into conscious educational practice.

2.2. Value logic dimension: Intrinsic correlation of the four-dimensional structure

The four dimensions of the “Four-Dimensional Integration” follow a rigorous, logically progressive relationship.

- (1) Patriotism and national sentiment: Standing at the core of value guidance, it answers the fundamental question of “for whom we learn”. It requires students to understand urban issues from the perspective of national development and national rejuvenation, and integrate personal aspirations into national strategic demands.

- (2) Innovative thinking: Serving as the core of competence cultivation, it addresses the methodological question of “how to innovate and create”. The complexity of urban problems necessitates innovative thinking; frontier topics such as smart cities and digital twins require students to break existing cognitive frameworks and propose creative solutions^[6].
- (3) Craftsmanship spirit: Providing quality assurance, it defines the professional attitude adopted in professional practice. Urban geographic surveys and spatial data analysis demand high precision and standardization, and the relentless pursuit of professional quality constitutes a practice of values in itself.
- (4) Geospatial literacy: Acting as the disciplinary foundation, it establishes the fundamental support for professional practice. Geography’s core competencies of comprehensive thinking, regional cognition and human-land coordination serve not only as core professional capabilities, but also as disciplinary expressions of ecological civilization values.

The four dimensions form a progressive structure of “value guidance – core competence – quality guarantee – disciplinary foundation”, collectively addressing the fundamental educational proposition of “what kind of talents we aim to cultivate”.

2.3. Cognitive law dimension: Cognitive path for integrating ideology and politics into teaching

From the perspective of students’ cognitive rules, the implementation of the “Four-Dimensional Integrated” model follows a progressive path of perception—comprehension—internalization—practice, through which students gradually construct ideological and political literacy at a profound level.

- (1) Perception: Relying on tangible carriers, including local urban cases and interpretations of national strategies, students initially form a preliminary cognition that urban development is closely tied to national destiny.
- (2) Comprehension: Through systematic learning of professional knowledge systems, students gradually recognize the social attributes and value dimensions embedded in urban issues.
- (3) Internalization: Via in-depth participation such as project practices and problem-based inquiry, external value guidance is transformed into internal value identity.
- (4) Practice: Formed value concepts are translated into tangible actions serving society. This cognitive path ensures that the integration of ideological and political education avoids superficial formalism and penetrates students’ in-depth thinking frameworks.

3. Design framework of the “Four-Dimensional Integrated” curriculum ideology and politics teaching model for urban geography

Based on the above theoretical logic, the design of the teaching model shall adhere to three principles: integration, localization and personalization. Systematic correspondence between teaching modules and ideological-political dimensions ensures clear knowledge objectives and definite ideological-political orientations for every teaching segment.

3.1. Fundamental urban issues: Corresponding to geospatial literacy and patriotism & national sentiment

Covering basic urban concepts, urban-rural division and urbanization principles, this module lays the

introductory foundation of Urban Geography^[7]. The integration of ideological and political elements follows a three-layer progressive logic: historical comparison, real-world perception and value speculation.

- (1) Compare the development trajectories of Chinese and foreign cities to explore the inherent characteristics of the socialist path of urban development with Chinese features;
- (2) Select representative cases of China's urbanization construction. Drawing on leapfrog achievements in urban construction after the reform and opening-up, stimulate students' national confidence and help them establish the basic cognition that "urban construction level reflects the degree of national development" based on emotional recognition;
- (3) Centered on the national strategy of new-type urbanization, organize seminars on "what constitutes a high-quality urbanization development model". Guide students to move beyond superficial observation of urban construction achievements and delve into the value logic underlying urbanization.

3.2. Urban systems and regional organization: Corresponding to patriotism & national sentiment and innovative thinking

This module covers urban size distribution, urban hierarchy distribution and urban system planning, forming a logical chain extending from "size-rank of individual cities" to "spatial laws of regional organization" and further to "planning practices for national governance". It serves as an ideal entry point to demonstrate how Chinese solutions localize and transcend classical theories. Key priorities for integrating ideological and political education:

- (1) Take national strategies, including integrated regional development and coordinated urban development, as cases to interpret the strategic significance of coordinated regional development and urban agglomeration construction;
- (2) Adopt urban agglomeration planning practices to help students understand the national spatial development pattern of "unified national planning";
- (3) Encourage students to conduct critical reviews of traditional urban system theories, and reflect on the contemporary applicability of classical theories under new contexts such as new-type urbanization and digital transformation, so as to cultivate innovative thinking.

3.3. Internal urban spatial structure: Corresponding to craftsmanship spirit and innovative thinking

This module includes urban land use, regional structural models, urban commercial space, industrial space and social space. The integration of ideological and political education focuses on two aspects:

- (1) Through topics such as urban social spatial differentiation, urban land use and urban functional zoning, guide students to pay attention to fairness and justice in urban development and foster a sense of social responsibility; cultivate a pursuit of excellence in professional work via cases of urban renewal and stock-based planning.
- (2) Encourage students to rethink traditional urban spatial structure theories, and explore new paths for urban spatial analysis by adopting new technologies such as big data and artificial intelligence, thus developing innovative thinking.

3.4. Urban problems and sustainable development: Covering all four dimensions

Including urban growth management, urban problems and sustainable development, this module comprehensively embodies all four dimensions of the model:

- (1) Patriotism & national sentiment: In-depth understanding of national strategies including the Beautiful China Initiative, carbon peaking and carbon neutrality goals;
- (2) Innovative thinking: Creative exploration of solutions to urban challenges;
- (3) Craftsmanship spirit: Rigorous attitude toward urban problem diagnosis and countermeasure design;
- (4) Geospatial literacy: Systematic cognition of coordinated human-land relationship development.

4. In-depth collaborative practical paths under the “Four-Dimensional Integrated” curriculum ideology and politics model

Effective implementation of the model relies on systematic innovation of teaching strategies. This paper proposes operable practical paths from four dimensions: teaching content, teaching methods, practical teaching and evaluation mechanism.

4.1. Renew teaching content: Systematic excavation and organic embedding of ideological and political elements

Updating teaching content forms the foundational project of curriculum ideology and politics. To address outdated textbook content and disconnection from disciplinary frontiers, three strategies are proposed.

4.1.1. Establish a systematic mapping between ideological-political elements and knowledge points

Using the four dimensions as a framework, screen ideological-political elements for every knowledge unit of Urban Geography, and clarify integration points, integration methods and expected objectives for each chapter. Examples:

- (1) The chapter of Urbanization integrates the strategy of new-type urbanization and the people-centered urban development philosophy;
- (2) The chapter of Urban Systems integrates coordinated regional development and the construction of a unified national market;
- (3) The chapter of Urban Environment integrates ecological civilization construction and the principle that lucid waters and lush mountains are invaluable assets. This systematic correspondence avoids random and fragmented integration of ideological and political education.

4.1.2. Dynamically update teaching cases to enhance timeliness and localization

Maintain freshness of teaching content by continuously supplementing and updating cases highlighting contemporaneity and regional characteristics. Teaching should not be confined to single textbooks; timely incorporate major national strategic deployments, practical experience of local development and latest disciplinary advances. Practices conducted by Deng Xiaojun and other scholars taking the integrated development of the Yangtze River Delta as research objects verify that integrating national strategies into professional learning not only helps students master knowledge, but also strengthens their mission to serve social development. Research by Hu Xuewei et al. also indicates that localized cases reduce the sense of

distance from ideological and political content, enabling students to engage more deeply and improving the overall learning experience.

4.1.3. Restructure teaching content with the dual logic of “Modularization + Thematization”

The organization of teaching content is a core technical link determining whether curriculum ideology and politics can achieve subtle and silent influence. Traditional Urban Geography teaching advances sequentially by textbook chapters. Despite inherent correlations between knowledge points, ideological-political integration often appears fragmented or far-fetched due to a lack of clear structural support. To tackle this challenge, this paper adopts a dual organizational logic of modularization and thematization:

- (1) Horizontally, teaching content is divided into relatively independent knowledge units;
- (2) Vertically, thematic threads connect core ideological and political topics.

The classical theoretical framework of “urbanization – urban structure – urban systems” itself contains potential for ideological and political education: urbanization relates to the choice of national development paths; urban structure carries issues of social equity and spatial justice; urban systems directly respond to strategies of coordinated regional development. Each module centers on specific core questions with clear ideological-political education objectives, transforming value guidance from an additional “extra task” to an inherent link synchronized with knowledge instruction.

Following the teaching sequence of “theoretical preparation – analysis of development conditions – research on strategic objectives – regional spatial pattern – internal urban pattern – urban development management”, teaching content is further modularized. From theoretical foundation to real-world concerns, from spatial cognition to value judgment, ideological and political education permeates every teaching link, forming a closed-loop teaching system integrating knowledge transmission, competence cultivation and value guidance. This combined modular and thematic organization responds to practical challenges such as complex knowledge systems and compressed class hours for Urban Geography, while providing a clear structural carrier for in-depth integration of curriculum ideology and politics.

4.2. Optimize teaching strategies: Transform from one-way lecturing to in-depth interaction

Innovation in teaching methods serves as a critical lever to activate the educational efficiency of curriculum ideology and politics. The traditional one-way indoctrination model fails to fulfill the in-depth goals of value guidance, requiring a shift toward interactive, inquiry-based and experiential teaching.

4.2.1. Problem-driven teaching

The core of problem-driven teaching is embedding knowledge transmission into the analysis and solution of real-world problems. When confronted with complex urban challenges, students apply theoretical knowledge for diagnosis and reasoning while forming value judgments and positions.

In implementation, problem-driven teaching takes major national strategic demands and real urban issues as starting points for classroom instruction. Instead of requiring immediate answers, teachers guide students through a complete thinking process: problem identification—theoretical mobilization—analytical argumentation—solution proposal—value reflection. Students engage with vivid real-world challenges instead of abstract textbook knowledge, which require interdisciplinary mastery.

For instance, when analyzing “how to realize coordinated development of urban agglomerations”, students need to apply core Urban Geography theories including urban size distribution laws, central place theory and spatial interaction, while understanding concrete practices of national strategies such as the Yangtze River Delta Integration and Beijing-Tianjin-Hebei Coordinated Development. Through this process from theory to practice, students gradually recognize that urban agglomerations are not simple aggregations of cities, but organic entities built via institutional coordination, interconnected infrastructure and industrial division of labor. Such cognition deepens mastery of urban system theories and fosters recognition of national strategic concepts such as unified national planning and coordinated regional development.

Urban problems rarely have a single definitive solution. During analysis and argumentation, students must balance diverse demands of different stakeholders and weigh tensions between short-term benefits and long-term sustainability. Such training cultivates inclusive thinking, critical judgment and scientific decision-making capabilities, which constitute core literacy targeted by the dimension of innovative thinking.

4.2.2. Flipped classroom and blended teaching

In flipped classrooms, students independently acquire preliminary understanding of basic concepts through previews, micro-lessons and literature review before class. In-class time is reserved for discussions on difficult problems and systematic training of thinking abilities. This readjustment of teaching sequence creates critical conditions for in-depth integration of ideological and political education: value discrimination, position evaluation and emotional resonance essential for ideological-political education are best realized through in-depth seminars.

- (1) Pre-class stage: While students complete knowledge preview via intelligent teaching platforms, teachers push frontier topics related to current affairs and national strategies, helping students establish connections with the real world from the initial contact with professional knowledge.
- (2) In-class stage: Real-time feedback and diverse perspectives generated by artificial intelligence systems provide rich materials for classroom discussion, prompting students to deepen understanding of value propositions through debate and discrimination.
- (3) Post-class stage: Teachers expand supplementary resources to guide students to extend classroom reflections to broader thinking.

The integration of flipped classrooms and artificial intelligence technologies represents not merely a transformation of teaching forms, but a technical guarantee for full-process education in curriculum ideology and politics, allowing teachers to devote more energy to deepened instructional design and optimized teacher-student interaction, and align teaching content consistently with disciplinary frontiers and social hot topics^[8]. This fits the disciplinary characteristics of Urban Geography featuring rapid knowledge updates and time-sensitive cases.

4.2.3. Project-based learning and case seminars

The “specialty-ideology-innovation” integrated model proposed by Zhang Wenzhu provides systematic theoretical support and a practical paradigm for this teaching path^[9]. It deeply integrates professional practical training, ideological and political education, and innovation and entrepreneurship cultivation: professional practice provides real scenarios for ideological-political education; ideological-political education defines value orientation for professional practice; innovation and entrepreneurship training serves as a concrete carrier for the implementation of both. While completing professional tasks, students naturally

engage with and respond to social demands, and value choices and judgments formed in this process constitute the most persuasive components of ideological and political education.

For example, through inquiry into urban development issues, students conduct community surveys, scheme design and result presentations, confronting concrete real-world challenges: how to optimize the spatial distribution of urban and rural populations? How to renovate old residential communities? How can community public spaces meet the demands of all age groups? Solving these tasks trains professional capabilities while enabling students to gradually recognize the profound implications of planning work related to people's livelihood and social equity. Students understand the social value of their professions in real scenarios, with professional identity and social responsibility growing simultaneously. Notably, teachers must embed value guidance objectives in task design at the initial stage of project-based learning, rather than supplement ideological education after project implementation. When project tasks themselves contain tensions of value choice, curriculum ideology and politics transform from "passive embedding" to "active generation".

4.3. Practical teaching: Realize value transformation in authentic scenarios

The practical disciplinary nature of Urban Geography determines the special status of practical teaching in curriculum ideology and politics. Practical teaching serves not only as a field for applying theoretical knowledge, but also as a critical link transforming value cognition into value identity.

4.3.1. Expand virtual-physical integrated practical spaces

Rapid iterations of information technology enable new possibilities via AR/VR technology in practical teaching. Immersive virtual urban scenes place students in first-person perspectives to perceive the spatial structure and evolutionary characteristics of different cities. Distinct from traditional image and video display, virtual reality creates an immersive sense of presence, allowing students to freely navigate and examine urban spatial organizational logic from multiple angles in simulated environments.

Students can access authentic geographic data including population distribution, land use and transportation networks on the platform, independently set planning objectives and practical workflows, and translate theories such as central place theory and urban spatial structure theories into concrete planning schemes, continuously optimizing decision-making paths during practice. Every decision and error made in virtual spaces carries no real-world consequences, creating a low-risk exploratory learning environment for students to accumulate valuable practical experience and reflection materials. Teachers shift from one-way knowledge transmitters to designers of virtual practical environments and guides of learning processes, assisting students in overcoming planning bottlenecks through heuristic questioning.

4.3.2. Build a practical system integrating "Curriculum – Competition – Scientific Research"

Strengthen integration of classroom teaching, disciplinary competitions and scientific research projects. Supporting teaching reform through skill competitions, research projects and case studies improves practicality and innovativeness of teaching and fully leverages regional and local disciplinary characteristics^[10].

Link curriculum practice with disciplinary competitions and undergraduate research programs to transform practical teaching from mandatory assignments to independent exploration. Relying on Urban Geography curriculum content, guide students to conduct surveys on urban issues, compose research reports, participate in competitions and undergraduate innovation and entrepreneurship projects.

4.3.3. Strengthen the value experience function of social practice

Organize field visits to old residential communities to help students perceive complex conflicts of interest in urban renewal; conduct field surveys of rural settlements to understand practical obstacles in integrated urban-rural development; participate in community planning practices to listen to residents' actual demands for living spaces. Field practice develops not only practical capabilities of survey and analysis, but also in-depth reflection on real urban challenges, naturally fostering a sense of social responsibility. Students come to understand that urban planning is far more than technical work, but a value-oriented practice tied to social equity and residents' quality of life. Personal on-site perception delivers educational effects unattainable through classroom lectures alone.

4.4. Evaluation mechanism strategy: Construct a multi-dimensional and stereotyped assessment system for ideological and political outcomes

Reform of evaluation mechanisms provides institutional guarantees for the solid implementation of curriculum ideology and politics. Traditional summative evaluation cannot effectively measure the achievement of ideological-political objectives, necessitating a diversified assessment system combining process evaluation, outcome evaluation and value-added evaluation.

4.4.1. Deepened process evaluation

Incorporate ideological and political literacy into regular course grades, tracking continuous progress of students' value identity via indicators including classroom discussion performance, quality of practical assignments and project participation.

4.4.2. Collaborative evaluation with multiple participating subjects

Break the traditional single-teacher evaluation model by introducing student self-assessment, group mutual evaluation and evaluation from practical work units. This multi-perspective assessment comprehensively reflects the development of students' ideological and political literacy while enhancing student participation and sense of responsibility.

4.4.3. Exploration of value-added evaluation

Focus on changes in students' values before and after the course, rather than static final grades. Measure the real impact of curriculum ideology and politics on students' ideological understanding through pre-post test comparisons and learning portfolio tracking, providing empirical evidence for teaching improvement.

5. Conclusion

In summary, the "Four-Dimensional Integration" ideological and political education model—covering patriotism, innovative thinking, craftsman's spirit and geographical literacy—developed in this paper is built upon the in-depth integration between the disciplinary features of urban geography and educational objectives. At the theoretical level, it addresses the core issue of why integration is necessary; at the design level, it clarifies what content should be integrated; and at the practical level, it offers feasible implementation paths regarding how to achieve such integration. The core value of this model lies in its capacity to assemble fragmented ideological and political educational elements into a cohesive, logically layered and progressive

educational framework. It ensures that ideological and political education is no longer treated as a peripheral add-on task attached to professional knowledge, but as an organic component running through the whole process of theoretical teaching—practical teaching—evaluation and feedback. Future research can carry out comparative empirical cross-curricular and cross-institutional studies to test the applicability and adaptability of this model in varied teaching scenarios. In this way, more sufficient theoretical support and practical references can be provided further to advance ideological and political education within geography courses.

Disclosure statement

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References

- [1] Song JT, 1982, Striving to Improve the Academic Standard of Economic Geography – Better Serving Urban Planning and Construction. *Urban Planning*, (01): 24–27.
- [2] Shen MR, Zhou WC, 2025, Modular Teaching Exploration of Urban Geography Oriented to Planning Application – On the Thinking Contribution of Geography-Oriented Universities to Planning Disciplines. *Urban Planning*, 49(05): 24.
- [3] Song JT, 1980, City-Region and Urban Regional Survey Research – Research on Regional Economic Foundation Survey of Urban Development. *Acta Geographica Sinica*, (04): 277–287.
- [4] Cui GH, 1982, Several Issues Concerning Regional Economic Analysis in Urban Planning. *Economic Geography*, (1): 56–61.
- [5] Ye ZN, Wu ZQ, 2022, Concept, Ideological Foundation and Developmental Reflections of Urban Diagnosis. *Urban Planning*, 46(01): 53–59.
- [6] Wang Y, 2024, Exploration on the Design of Teaching Content System for Urban Geography in Universities Guided by New Development Philosophy. *Geography Education*, (05): 76–77.
- [7] Ma GQ, 2023, Research on Teaching Reform of Urban Geography Oriented to Territorial Spatial Planning. *Higher Education of Sciences*, (03): 63–70.
- [8] Yang D, Chen HX, et al., 2026, Research on Teaching Model Reform of Urban Geography Under the Background of Artificial Intelligence. *Journal of West China Normal University (Natural Science Edition)*, (04): 277–287.
- [9] Zhang WZ, Wu B, 2026, Integrated Teaching Practice of “Specialty-Ideology-Innovation” for Spatial Planning Courses in Universities – A Case Study of Introduction to Urban and Rural Planning. *Higher Education Forum*, 02(02): 64–65.
- [10] Hu XW, 2024, Research on Curriculum Reform of Urban Geography in the New Era – A Case Study of Urban and Rural Planning Major at Tarim University. *Architecture & Culture*, (04): 75–76.

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