Revista Cientifica Estudiantil MedEs

MedEst|2026 | Vol.6: e588| ISSN: 2789-7567 |RNPS: 2524| RESEARCH ARTICLE

Didactic strategy for the development of professional competencies in residents of Intensive Care and Emergency Medicine

Estrategia didáctica para el desarrollo de competencias profesionales en residentes de Medicina Intensiva y Emergencia

Olimpia Díaz Luis [1], Rolando Ernesto Ojeda Martell [1]

Eneyda Secada Cárdenas [2] Fara Maria Bolaños-Drake [1]

[1] Faustino Pérez Provincial Clinical-Surgical Teaching Hospital. Matanzas, Cuba.

[2] University of Medical Sciences of Matanzas. "Dr. Juan Guiteras Gener" Faculty of Medical Sciences of Matanzas. Matanzas, Cuba.

How to cite this article:
Díaz-Luis O; Ojeda-Martell RE; Secada-Cárdenas E; Bolaños-Drake FM. Didactic strategy for the development of professional competencies in residents of Intensive Care and Emergency Medicine. MedEst. [Internet]. 2026 [cited access date]; 6:e588. Available in: https://revmedest.sld.cu/index.php/medest/article/view/588

Palabras Clave:
competencias profesionales; estrategia didáctica; Medicina Intensiva y Emergencia; residentes; educación médica.

Keywords:
professional competencies; didactic strategy; Intensive Care and Emergency Medicine; residents; medical education.

Corresponding author:
motydiaz883@gmail.com

Received: 02/08/2026

Accepted: 10/10/2026

Published: 11/10/2026

Editor(s) in charge:
MSc. Yuniel Rosales Alcántara

Translator:
Lic. Meliza Maura Vázquez Núñez

Layout designer:
Carlos Luis Vinagera Hidalgo

RESUMEN

Introducción: La formación de residentes en Medicina Intensiva y Emergencia (MIE) demanda el desarrollo de competencias profesionales integradas que garanticen una atención de calidad al paciente crítico. **Objetivo:** Diseñar una estrategia didáctica para el desarrollo de competencias profesionales en la formación de residentes de MIE del Hospital Provincial Clínico Quirúrgico Docente Faustino Pérez. **Métodos:** Investigación cualitativa de desarrollo tecnológico, con alcance descriptivo y transversal, realizada entre noviembre de 2024 y marzo de 2026. El universo estuvo conformado por 51 profesionales; la muestra, seleccionada de forma intencionada, incluyó 44 sujetos. Se emplearon métodos teóricos (análisis-síntesis, inducción-deducción, sistémico-estructural-funcional, análisis documental) y empíricos (encuestas, entrevistas, criterio de especialistas). La estrategia fue validada teóricamente mediante el criterio de 15 especialistas. Se utilizó estadística descriptiva para el procesamiento de los datos. **Resultados:** El diagnóstico reveló insuficiencias en las dimensiones cognitiva, ético-actitudinal y procedimental-metodológica en los residentes. Se diseñó una estrategia didáctica estructurada en cinco etapas (diagnóstico, planificación, ejecución, evaluación, retroalimentación y ajuste), sustentada en fundamentos filosóficos, psicológicos, sociológicos y pedagógicos. La validación por especialistas mostró una aceptación favorable (94,7 % en categoría razonable; α de Cronbach = 0,807). **Conclusiones:** La estrategia didáctica propuesta constituye una herramienta factible para contribuir al desarrollo de competencias profesionales en residentes de MIE, al integrar conocimientos, habilidades y gerencia en el proceso formativo.

ABSTRACT

Introduction: The training of residents in Intensive Care and Emergency Medicine (ICEM) demands the development of integrated professional competencies that guarantee quality care for critically ill patients. **Objective:** To design a didactic strategy for the development of professional competencies in the training of ICEM residents at the Faustino Pérez Provincial Clinical Surgical Teaching Hospital. **Methods:** Qualitative, technological development research with descriptive and cross-sectional scope, conducted from November 2024 to March 2026. The universe consisted of 51 professionals; the purposive sample included 44 subjects. Theoretical methods (analysis-synthesis, induction-deduction, systemic-structural-functional, documentary analysis) and empirical methods (surveys, interviews, expert criteria) were employed. The strategy was theoretically validated through the criteria of 15 specialists. Descriptive statistics were used for data processing. **Results:** The diagnosis revealed insufficiencies in the cognitive, ethical-attitudinal, and procedural-methodological dimensions among residents. The designed strategy comprises five stages (diagnosis, planning, execution, evaluation, feedback and adjustment) and is grounded in philosophical, psychological, sociological, and pedagogical foundations. Specialist validation showed favorable acceptance (94.7% in the reasonable category; Cronbach's α = 0.807). **Conclusions:** The proposed didactic strategy constitutes a feasible tool to contribute to the development of professional competencies in ICEM residents, by integrating knowledge, skills, and management in the formative process, reinforces the need to strengthen screening and preventive interventions in the province.

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmedest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu

OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

INTRODUCTION

The quality of health services constitutes a global priority, as stated in the third article of the 2030 Agenda for Sustainable Development, which establishes the right to a healthy life with quality medical care [1]. In this context, the training of competent health professionals is essential to guarantee adequate care standards.

The Cuban medical university has the mission of executing and controlling the training of undergraduate and postgraduate human capital, graduating a competent, quality professional with high scientific rigor, with deep ethical, moral, and civic values, as stipulated in the Constitution of the Republic of Cuba [2]. The goal is to train a professional on the basis of the clinical-epidemiological method, capable of performing successfully in medical care, teaching, research, and health administration [3,4].

Professional competencies have been defined as the set of knowledge, skills, attitudes, and values that are put into operation in a work context to solve specific practical problems [5,6,7]. In the specialty of Intensive Care and Emergency Medicine (ICEM), this training acquires particular relevance because it is a profession that provides care to individuals in critical or serious condition, where time and precision are determinants for survival.

Internationally, the CoBaTrICE project (Competency-Based Training in Intensive Care Medicine in Europe) has been fundamental to homogenize the curriculum in Europe [8,9]. In Cuba, since 2007, standards have been established for the Integrated Human Capital Management System that raise the need to identify competencies to improve work performance [10,11]. The National School of Public Health and the National Commission for Competence and Performance of the Ministry of Public Health have promoted research in this field [12,13].

At the Faustino Pérez Provincial Clinical Surgical Teaching Hospital in Matanzas, a problematic situation has been identified: the insufficient development of professional competencies in the training of Intensive Care and Emergency Medicine Residents, in terms of knowledge, skills, and management, which limits comprehensive training and the development of professional competencies adequate to the context in which they perform.

Therefore, the scientific problem is formulated as: How to contribute to the development of professional competencies in the training of Intensive Care and Emergency Medicine Residents at the Faustino Pérez Provincial Clinical Surgical Teaching Hospital?

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

The objective of the research was to design a didactic strategy for the development of professional competencies in the training of ICEM Residents at said hospital.

METHODS

Type and design of research

A qualitative research of technological development was conducted, with a descriptive and cross-sectional scope, in the period from November 2024 to March 2026.

Context and participants

The research was developed in the critical patient care units of the "Faustino Pérez" Provincial Clinical Surgical Teaching Hospital in Matanzas, Cuba.

Universe: Consisted of 51 professionals, including professors from the specialty faculty (specialists in ICEM and related specialties: Cardiology, Nephrology, Pediatrics, Plastic Surgery and Burnology, Anesthesiology and Resuscitation, Neonatology) and residents in training.

Sample: A total of 44 participants were selected intentionally: 13 ICEM specialists (81,25 % of the total), 24 residents (81,71 % of the total), 7 specialists from other disciplines that contribute to training (100 % of each specialty).

The sample size was determined by saturation criterion, considering the qualitative nature of the study and the accessibility to participants.

Research methods

General method:

- Dialectical-materialist: allowed studying the object in its development, objectivity, and revealing the internal relationships of the studied phenomenon.

Theoretical methods:

- Analysis and synthesis: to deepen the specialized bibliography on competency-based training and medical education.
- Induction and deduction: to know the general characteristics of the knowledge, skills, and management that residents must acquire.
- Systemic-structural-functional: to establish the systemic links between the theoretical foundations and the proposed strategy.

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

- Documentary analysis: to analyze the ICEM specialty Program (Resolution 273/2025), regulations and resolutions that govern teaching work (Resolutions 47/2022, 108/2004, 182/2014, 140/2019; Study Plan E/2020).

Empirical methods:

- Survey: applied to 20 professors to know the initial state of knowledge about the teaching of program contents. The questionnaire was validated by the judgment of 5 experts in medical education.
- Semi-structured interview: conducted with 24 residents to verify the level of competence achieved according to the indicators of the training process. The script was validated through prior piloting.
- Specialist criteria: questionnaire applied to 15 professors with academic category (9 doctors of science and 6 master's degrees), with more than 10 years of experience in higher education (average: 20,3 years), for the theoretical validation of the didactic strategy. The selection of specialists was carried out using the competence coefficient method (K), obtaining an average value of 0.85, considered high.

Statistical methods: Descriptive statistics were used for mathematical processing, tabulation, and analysis of information, expressed in absolute numbers and percentages. Data were stored in a database and processed with Microsoft Office Excel LTSC2021. For the validation of the instruments, Cronbach's α coefficient was calculated.

Variables, dimensions, and indicators

Three dimensions were established to evaluate the development of professional competencies:

Cognitive dimension: Level of knowledge, skills, and managerial functions of residents in their care practice. Indicators: 1.1 Medical knowledge for comprehensive care; 1.2 Knowledge of protocols; 1.3 Knowledge of advanced technology; 1.4 ICU admission criteria; 1.5 Skills in invasive procedures; 1.6 Managerial functions.

Ethical-attitudinal dimension: Degree of development in modes of action, attitudes, values, and norms. Indicators: 2.1 Responsibility and ethical commitment; 2.2 Compliance with ethical principles; 2.3 Patient data protection; 2.4 Equitable care.

Procedural-methodological dimension: Existence of normative documents and procedures. Indicators: 3.1 Training in new

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

technologies; 3.2 Compliance with protocols; 3.3 Team coordination; 3.4 Participation in scientific dissemination.

The parameterization was carried out according to the procedure proposed by the Advanced Education technology [14], deriving the object of study into measurable elements that allowed the assessment of the current state.

Decision rule: Low Level was considered when the indicator obtained positive results in less than 50 %; Medium Level between 50 % and 79 %; High Level between 80 % and 100 %.

Procedure

The seven steps proposed by the Advanced Education technology for diagnosis were followed [14]:

1. Approach to the investigated context
2. Parameterization process
3. Approach to the ideal model
4. Approach to the current state
5. Comparison between current and expected state
6. Hierarchization of identified problems
7. Search for solutions

Ethical considerations

The research respected the ethical postulates of scientific research. Approval was obtained from the Research Ethics Committee of the Faustino Pérez Provincial Clinical Surgical Teaching Hospital. Participants were informed about the objectives of the study and their written informed consent was requested. The information obtained was handled with discretion and was not used for purposes outside the research framework.

RESULTS

Documentary analysis

The review of the normative documents (ICEM specialty Program 2025, Resolutions 47/2022, 273/2025, 108/2004, 182/2014, Plan E/2020, 140/2019) evidenced that, although there are provisions on competency-based training and suitability for the job position, specific methodological tools are required for their effective implementation in the context of ICEM residency.

Results of surveys and interviews

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License

OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

Table 1 shows the distribution of results according to the evaluated dimensions, comparing the perception of professors and residents.

Table 1. Distribution of results according to evaluated dimensions

Dimension	Professors (n=20) Very adequate (%)	Residents (n=24) Very adequate (%)
Cognitive	94,1	32,6
Ethical-attitudinal	97,5	10,5
Procedural-methodological	93,7	8,0

Source: Survey of professors and interview of residents.

Methodological triangulation

Cognitive dimension - Weak aspects:

- Insufficient deepening of knowledge on the management of critically ill patients.
- Limited use of established protocols and their continuous updating.
- Insufficient implementation of new technologies in the teaching-learning process.
- Low level of knowledge about managerial functions (only 41.6% of residents reported adequate knowledge in this area).

Cognitive dimension - Strong aspects:

- Sufficient knowledge of professors about their functions in the teaching-learning process.

Ethical-attitudinal dimension - Weak aspects:

- Need to emphasize professional ethics in professional-professional, professional-patient, and professional-family relationships.

Ethical-attitudinal dimension - Strong aspects:

- Sufficient stimulation of values, medical ethics, and responsible attitude on the part of the faculty.

Procedural-methodological dimension - Weak aspects:

- Need for greater integration in the work team.
- Limited use of advanced technologies.
- Little dissemination of scientific results achieved by the team.

Procedural-methodological dimension - Strong aspects:

- Adequate level of faculty professional development.

Proposed didactic strategy

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License

OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

The designed strategy is based on philosophical (dialectical-materialist), psychological (Vygotsky's historical-cultural approach and Leontiev's activity theory), sociological, pedagogical (Advanced Education Theory) and Medical Education foundations.

General objective: To develop professional competencies of ICEM residents through a didactic strategy based on the competency-based approach, the integration of knowledge, skills, and management, the use of ICT, and continuous formative evaluation in teaching and care settings.

Structure of the strategy:

Stage	Purpose	Main actions
Diagnosis	Identify needs, competency gaps, and training conditions	Application of initial diagnosis, identification of training needs, performance assessment, detection of resource limitations and digital competence
Planning	Define objectives, contents, methods, resources, and indicators	Formulation of objectives by dimensions, selection of priority contents, design of teaching activities, definition of evaluation indicators
Execution	Develop integrated teaching and care activities	Problem-based classes, clinical simulations, procedure training, teamwork, clinical management exercises, use of virtual classroom
Evaluation	Assess progress in knowledge, skills, and management	Performance observation, self-evaluation, co-evaluation and hetero-evaluation, electronic portfolio
Feedback and adjustment	Correct weaknesses and perfect the strategy	Analysis of results, identification of strengths and weaknesses, redesign of improvement actions, adjustment of contents and resources

Source: prepared by the authors.

Validation by specialist criteria

The results of the validation are presented in Table 2.

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

Table 2. Distribution of specialist criteria according to evaluated properties (n=15)

Property	Much (n)	%	Little (n)	%
Reasonable	15	100	0	0
Discriminates variations	14	93.3	1	6.7
Justifiable	15	100	0	0
Clearly defined	15	100	0	0
Data feasible to obtain	15	100	0	0

Source: Questionnaire to specialists.

94,7 % of the responses were in the reasonable category. Only 7,1 % of the indicators were considered "little adequate" in the aspect of discriminating variations. Cronbach's α reliability coefficient was 0,807, indicating high internal consistency of the instrument.

Specialist recommendations:

1. Improve the graphic representation of the strategy.
2. Specify the use of some terms.

These suggestions were incorporated into the final version of the strategy.

DISCUSSION

The results of this research coincide with what was reported by Véliz Martínez [15], who identified care, managerial, teaching, and research competencies as essential for the ICEM specialist. Our study confirms that managerial competencies are the least developed among residents, with only 41,6 % of respondents manifesting adequate knowledge in this area, similar to what was found by Alcalde and Lecler [16] in their study on competencies in postoperative care.

The need for a training strategy that integrates simulation and continuous evaluation has been pointed out in previous research [17,18]. The proposed strategy incorporates these elements, in accordance with the Advanced Education approach [19], which emphasizes professional and human improvement as a positive transformation in the intellectual and spiritual development of the subject.

The psychological foundations assumed, based on Vygotsky's historical-cultural approach [20] and Leontiev's activity theory [21], are pertinent to the context of resident training, where learning occurs in activity and as a result of it, in interaction with the sociocultural environment.

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

Regarding the ethical-attitudinal dimension, our findings reveal an important gap between the perception of professors (97,5 % very adequate) and the self-perception of residents (10,5 % very adequate). This finding suggests the need to strengthen ethical training as a cross-cutting component, as recommended by Alfonso Salavert [22] for ICEM residents. This discrepancy has also been documented in other specialties, such as Gastroenterology [23] and General Surgery [24].

Theoretical validation by specialists showed high acceptance of the strategy (94,7 % in reasonable category), similar to what was reported in previous technological development studies in medical education [25,26]. The concordance among specialists (Cronbach's α = 0,807) supports the reliability of the evaluation instrument.

Limitations of the study

The cross-sectional nature of the diagnosis, which did not allow evaluating the evolution of competencies over time. The sample limited to the context of a provincial hospital, which restricts the generalization of the results. The exclusively theoretical validation of the strategy, without practical implementation to evaluate its real effectiveness. The lack of evaluation of the strategy's impact on clinical or professional performance indicators.

Applicability and implications of the findings

The proposed didactic strategy can be implemented in other hospitals with ICEM residency programs, adapting the contents to their resources and institutional characteristics. Its modular and flexible approach allows adjustments according to specific training needs. It is suggested that institutions adopting this strategy consider the availability of technological resources and prior training of tutors in active teaching methodologies.

Future lines of research

Implement the strategy and evaluate its effectiveness through a pre-post design with longitudinal follow-up. Extend the study to other hospitals with ICEM residency programs to validate its applicability in different contexts. Incorporate the perspective of patients and family members in the evaluation of professional competencies. Evaluate the impact of the strategy on quality of care and patient safety indicators.

CONCLUSIONS

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License

The theoretical systematization carried out allowed identifying the philosophical, psychological, sociological, and pedagogical foundations that support the development of professional competencies in ICEM residents, highlighting the pertinence of the historical-cultural approach and Advanced Education. The applied diagnosis revealed insufficiencies in the cognitive, ethical-attitudinal, and procedural-methodological dimensions of the residents, with a marked gap between the perception of professors and the self-perception of residents. The designed didactic strategy, structured in five stages (diagnosis, planning, execution, evaluation, feedback and adjustment), integrates knowledge, skills, and management as central dimensions of professional performance. Validation by specialists demonstrated the theoretical feasibility of the strategy, with 94,7 % acceptance in the reasonable category and high internal consistency (α = 0,807), which supports its potential usefulness in the training process.

BIBLIOGRAPHIC REFERENCES

1. Comisión Económica para América Latina y el Caribe (CEPAL). Oportunidad para América Latina y el Caribe (LC/G.2681-P/Rev.3). Santiago: Naciones Unidas; 2018 [cited 15/07/2026]. Available in: https://repositorio.cepal.org/handle/11362/40155

2. Asamblea Nacional del Poder Popular. Constitución de la República de Cuba. La Habana: Editorial Política; 2019.

3. Salas Perea RS. Propuesta de estrategia para la evaluación del desempeño laboral de los médicos en Cuba. Educ Med Super [Internet]. 2010 [cited 15/07/2026];24(3). Available in: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21412010000300011

4. Mendoza Rodríguez H. Apuntes sobre Educación Médica [Internet]. La Habana: Ciencias Médicas; 2023 [cited 15/07/2026]. Available in: http://www.ecimed.sld.cu/2023/02/05/apuntes-sobre-educacion-medica/

5. Véliz Martínez PL, Jorna Calixto AR, Berra Socarrás EM. Consideraciones sobre los enfoques, definiciones y tendencias de las competencias profesionales. Educ Med Super [Internet]. 2016 [cited 15/07/2026];30(2). Available in: http://ems.sld.cu/index.php/ems/article/view/812

6. Salas Perea RS. Los procesos formativos, la competencia profesional y el desempeño laboral en el Sistema Nacional de Salud de Cuba. Educ Med Super [Internet]. 2012 [cited

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS

15/07/2026];26(2):163-165. Available in: http://www.ems.sld.cu/index.php/ems/article/view/213

7. Vidal MJ, Salas RS, Fernández B, García AL. Educación basada en competencias. Educ Med Super [Internet]. 2016 [cited 15/07/2026];30(1). Available in: http://www.ems.sld.cu/index.php/ems/article/view/80

8. Castellanos-Ortega Á, Rothen HU, Franco N, et al. Formación en Medicina Intensiva. Un reto a nuestro alcance. Med Intensiva. 2014;38(5). DOI: 10.1016/j.medin.2014.01.007

9. Prisco L, Donadello K, Shepherd SJ. Intensive care medicine curricula in Europe: docendo discimus. Intensive Care Med. 2015;41(12). DOI: 10.1007/s00134-015-3907-x

10. Cuba. Ministerio de Ciencia, Tecnología y Medio Ambiente. Norma cubana 3000: Sistema de Gestión Integral de Capital Humano -- Vocabulario. La Habana: Oficina Nacional de Normalización (ONN); 2007.

11. Cuba. Ministerio de Ciencia, Tecnología y Medio Ambiente. Norma cubana 3002: Sistema de Gestión Integral de Capital Humano -- Implementación. La Habana: Oficina Nacional de Normalización (ONN); 2007.

12. Salas Perea RS. Propuesta de estrategia para la evaluación del desempeño laboral de los médicos en Cuba [tesis doctoral]. La Habana: Escuela Nacional de Salud Pública; 2009.

13. Perdomo Victoria I, Martínez Calvo S. Estrategia metodológica para evaluar competencias profesionales en especialistas de Higiene y Epidemiología. Rev Cubana Salud Pública [Internet]. 2010 [cited 15/07/2026];36(2). Available in: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-34662010000200007

14. González La Nuez O, Suárez Surí G. Propuesta para el diseño e introducción en el proceso de enseñanza. USA: Editorial Publicia; 2016.

15. Véliz Martínez PL. Modelo del especialista en Medicina Intensiva y emergencias por competencias profesionales [tesis doctoral]. La Habana: Universidad de Ciencias Médicas de la Habana; 2016.

16. Alcalde Mustelier GR, Lecler Nicolás J. Los especialistas en Medicina Intensiva y Emergencia en el desarrollo de competencias en

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS

cuidados posoperatorios. Órbita Científica [Internet]. 2021 [cited 15/07/2026];(115). Available in: http://revistas.ucpejv.edu.cu/index.php/rOrb/article/view/1181

17. Álvarez MV. Alternativa metodológica para el proceso docente-educativo del módulo trauma del internado vertical en Medicina Intensiva [tesis de maestría]. Matanzas: Universidad de Ciencias Médicas de Matanzas; 2022.

18. Del Valle Llufrío P, Del Huerto Marrimón ME, Díaz Díaz AA. Competencias profesionales específicas para la formación de los especialistas en Gastroenterología. Rev Haban Cienc Méd [Internet]. 2022 [cited 15/07/2026];21(5). Available in: http://www.revhabanera.sld.cu/index.php/rhab/article/view/5024

19. Valcárcel Izquierdo N, Porto Ramos AG, Rodríguez Díaz CR, et al. La Educación Médica: Origen y Evolución como Ciencia. Rev Cubana Tecnol Salud [Internet]. 2019 [cited 15/07/2026]. Available in: https://revtecnologia.sld.cu/index.php/tec/article/view/1234

20. Vigotsky LS. Problemas de la enseñanza y el desarrollo mental en la edad escolar. En: Investigaciones Psicológicas Escogidas. Moscú; 1956.

21. Leóntiev AN. Actividad, Conciencia y Personalidad. La Habana: Pueblo y Educación; 1981.

22. Alfonso Salavert I. El desarrollo del valor humanismo en los residentes de la Especialidad de Medicina Intensiva y Emergencias [tesis de maestría]. Matanzas: Universidad de Matanzas; 2022.

23. Del Valle Llufrío P, Del Huerto Marimón ME, Díaz Díaz AA. Propuesta de competencias profesionales específicas para la formación de los especialistas en Gastroenterología. Educ Med Super [Internet]. 2023 [cited 15/07/2026];37(1). Available in: https://ems.sld.cu/index.php/ems/article/view/3626

24. Lozano-González Y. Formación y desarrollo de competencias profesionales en los especialistas en cirugía general [tesis doctoral]. La Habana: Universidad de Ciencias Médicas de la Habana; 2024.

25. Lozano-González Y, Bolaños-Ruiz O, Almeida-Campos S. La formación y desarrollo de competencias profesionales en especialistas en cirugía general. Fundamentos teóricos. Rev Méd Electrón [Internet]. 2022 [cited 15/07/2026]; 44(6). Available in: http://www.revmedicaelectronica.sld.cu/index.php/rme/article/view/5019

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License

MedEst. 2026| Vol. 6: e588
ISSN: 2789-7567 | RNPS: 2524

26. Escobar Yéndez NV, Tamayo Escobar OE, García Olivera TM. Aproximación a la formación por competencias profesionales desde las asignaturas Propedéutica Clínica y Medicina Interna. Educ Med Super [Internet]. 2022 [cited 15/07/2026]; 36(1):e3252. Available in: https://ems.sld.cu/index.php/ems/article/view/3252

AUTHOR CONTRIBUTIONS

ODL: conceptualization, formal analysis, methodology, project administration, writing – original draft, writing – review and editing.

REOM: conceptualization, data curation, investigation, supervision, writing – original draft.

ESC: conceptualization, data curation, investigation, supervision, writing – original draft.

FMBD: conceptualization, data curation, investigation, supervision, writing – original draft.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest.

FUNDING SOURCES

This research received no external funding.

USE OF ARTIFICIAL INTELLIGENCE

The authors declare that artificial intelligence was not used in the writing of this manuscript.

DATA AVAILABILITY

The data supporting the findings of this study are available upon reasonable request to the corresponding author.

Articles in the MedEst Journal are shared under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License
Email: revmdest.mtz@infomed.sld.cu Website: www.revmedest.sld.cu
OPEN ACCESS