

A JOURNAL CROSS-CLASSIFICATION SYSTEM TO MAPPING CUBAN SCIENTIFIC OUTPUT

UN SISTEMA DE CLASIFICACIÓN CRUZADA DE REVISTAS PARA EL MAPEO DE LA PRODUCCIÓN CIENTÍFICA CUBANA

Ernesto Galbán-Rodríguez

Elfos Scientiae Publisher, Center for Genetic Engineering and Biotechnology (CIGB), Cuba

ernesto.galban@cigb.edu.cu

<http://orcid.org/0000-0002-2716-4799>

Déborah Torres-Ponjuán

Universidad de La Habana, Cuba

dtponjuan@fcom.uh.cu

<http://orcid.org/0000-0002-5936-6870>

Ricardo Arencibia-Jorge

Centro de Ciencias de la Complejidad, UNAM (México), México

ricardo.arencibia@c3.unam.mx

<http://orcid.org/0000-0001-8907-2454>

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ABSTRACT

Objective: This work's main aim was to create a cross-classification table for a set of 200 Cuban scientific and academic journals using Dewey Decimal Classification and journal classification schemes from Latindex, Web of Science and Scopus. **Design/Methodology/Approach:** The approach was based

on journal parallel classification among databases and completed by an expert classification approach. The assigned classification categories for journals were reviewed, to analyze the subject distribution for Cuban scientific output computed from 2000 to 2016 and also to compare journals versus output, and output in national versus foreign journals. **Results/Discussion:** Results obtained help identify those subject areas in which national journals' contents are more idiosyncratic and determine the relative subject distribution of multidisciplinary journals. **Conclusions:** Results could also help to develop national bibliographic databases or repositories, with connections to library and information science resources, further facilitating database indexing processes. **Originality/Value:** As far as we know, this is the first attempt to develop a cross-subject classification system for Cuban journals that can be further expanded by adding other national journals or subject classification systems.

KEYWORDS: classification systems, cross-classification, knowledge organization, scientific journals, scientific output, Cuba.

RESUMEN

Objetivo: El objetivo principal de este trabajo fue crear una tabla de clasificación cruzada para 200 revistas científicas y académicas cubanas utilizando la Clasificación Decimal Dewey y los esquemas de clasificación de Latindex, Web of Science y Scopus. **Diseño/Metodología/Enfoque:** El enfoque se basó en la clasificación paralela de revistas entre bases de datos y se completó con un enfoque de clasificación de expertos. Se revisaron las categorías asignadas a las revistas para analizar la distribución temática de la producción científica cubana 2000-2016, y también para comparar las revistas con la producción, y la producción en revistas nacionales versus extranjeras. **Resultados/Discusión:** Los resultados obtenidos permiten identificar áreas temáticas en las que los contenidos de las revistas nacionales son más idiosincráticos, y determinan la distribución temática relativa de las revistas multidisciplinarias. **Conclusiones:** Los resultados también podrían ayudar a desarrollar bases de datos o repositorios bibliográficos nacionales, con conexiones a recursos bibliotecarios y de ciencias de la información, facilitando aún más los procesos de indización. **Originalidad/Valor:** Hasta donde sabemos, este es el primer intento de desarrollar un sistema de clasificación de materias cruzadas para las revistas cubanas, el cual se puede ampliar agregando otras revistas nacionales o sistemas de clasificación.

PALABRAS CLAVE: sistemas de clasificación, clasificación cruzada, organización del conocimiento, revistas científicas, producción científica, Cuba.

INTRODUCTION

The arrangement of ideas and concepts in a systematic order is essential for decision-making processes of probably any activity in daily life. Libraries, information centers, public administrations, private companies or scientific organizations are completely dysfunctional without an efficient way of accessing their entire wealth of information and resources. Classification systems (CS) are in great demand due to their role in knowledge organization and information retrieval in this kind of entities (Lazarini, 2015). A classification scheme allows mapping the knowledge domains involved in any context and the cognitive relationships among them. In a Research and Development (R&D) environment, CS contributes to shaping science, technology and innovation (STI) systems. Existing journal or content classification schemes have been widely criticized at the theoretical and practical levels (Hjørland, 2012). However, they delineate the relative distributions of scientific knowledge, and therefore, they are essential for decision-making in Science Administration Systems (Ullah, 2017).

CS was formerly developed from Library Science, focused on disciplinary and relatively excluding allocation of scientific and technical objects and documents, as a subject hallmark supporting clustering. For instance, the Dewey Decimal Classification System (DDC), started in 1873 by Melvil Dewey, is among the most used library's CS (Satija, 2013) and maintained at the national bibliographic agency of the US Library of the Congress (<https://www.oclc.org/dewey>). DDC is a hierarchic discipline-based, library collection-focused CS. On its 23rd edition enforced since 2011, it is divided into ten main classes (000-900) with 915 divisions and multiple subdivisions. It can also be expanded, with 85 unassigned subdivisions and new decimal subdivisions for subject allocation.

With the advent of bibliographic databases, and the development and diversification of science, CS became progressively more subject- rather than discipline-oriented, information resource-specific, scientific journal-focused and interdisciplinary than traditional library classification schemes. They evolved into less aggregated CS, with a larger subject representation capacity, due to the broader scope of global and regional databases and indexes (Glanzel & Schubert, 2003). Some examples are the CS of the regional Latin American Directory Latindex, and those developed by the Web of Science Core Collection (WoS-CC) and Scopus (All Journal Subject Classification, AJSC), respectively.

Latindex uses a subject area-driven CS with subcategories in seven main areas: Arts and Humanities, Agricultural Sciences, Engineering Sciences, Natural and Exact Sciences, Medical Sciences, Social Sciences and Multidisciplinary Science (www.latindex.org). WoS and Scopus have multidisciplinary CS associated to their major active databases, with a broader subject representation. Both are less aggregated than other general CS, such as that of the National Science Foundation (NSF) in the US with 125 categories (Waltman & van Eck, 2019), or even DDC. The WoS classification scheme is structured in five broad major categories with up to 157 research areas: Arts and Humanities (14 research areas), Life Sciences and Biomedicine (75), Physical Sciences (17), Social Sciences (25) and Technology (21) (https://images.webofknowledge.com/images/help/WOS/hp_research_areas_easca.html). Meanwhile, Scopus has twice the representation capacity, with 27 categories and 334 subcategories distributed in five supergroups: Physical Sciences (115; 5 categories), Health Sciences (102; 10), Life Sciences (51; 5), Social Sciences (65; 6) and the Multidisciplinary (1; 1) (https://service.elsevier.com/app/answers/detail/a_id/15181/supporthub/scopus). By far, Health and Life Sciences together account for 47.8 and 45.8 % of the representation space in WoS and Scopus AJSC CS, while Social Sciences just 15.92 and 20 %, respectively.

However, some of the properties of CS make it hard to extrapolate classification categories between databases and indexes. The CS' information resource specificity makes a single journal have as many CS categories as resources in which it is indexed. One same journal may be classified differently by a given CS classification, according to its different focuses and purposes. Moreover, journal-based CS tend to diverge at the article level, particularly for multidisciplinary journals (Wang & Waltman, 2016). And more importantly, journals outside the given information resource are not classified according to it, unless the journal is accepted for indexation. All these characteristics make it difficult to evenly compare the subject distribution of the scientific output for a country or a region, particularly in studies using a multi-database approach, especially in those pretending a full coverage of national journals (Galbán-Rodríguez et al., 2019). Normally, not all the journals from a given country are indexed in all databases available,

neither regional nor major databases. There is no journal cross-classification available for this kind of studies.

These disadvantages are stressed for developing and underdeveloped countries, which have fewer indexed journals in major bibliographic databases (Galbán-Rodríguez et al., 2020). At the same time, journal subject classification must be periodically revised to prevent erroneous classification in those systems. To avoid all these problems, a general cross-classification could be generated, which could provide the equivalent classification for the information resources considered, while aiding on the pre-classification of journals for those databases, even before getting indexed.

The main aim of this work is to create a cross-classification table for a set of 200 Cuban scientific and academic journals using four major CS: DDC, Latindex CS, WoS CS and the Scopus AJSC. The assigned classification categories for Cuban journals indexed at those databases are reviewed, to analyze the subject distribution for Cuban scientific output computed from 2000 to 2016, and also to compare journals vs. output, and output in national vs. foreign journals.

The following questions were used as a research guide:

- Is it possible to create a unified thematic approach to analyze national output in multi-database or full coverage bibliometric studies?
- Is it useful a cross-classification table to assure an accurate journal subject characterization during an indexation process?

As far as we know, this is the first integrative study providing a cross-classification table for the uniform subject analysis of Cuban scientific production, focused on knowledge representation of national output in academic journals.

MATERIALS AND METHODS

A set of 200 Cuban academic journals certified as such by the national certification committee of the Ministry of Science, Technology and the Environment of Cuba (CITMA) was classified (listed in October 2018, by Galbán-Rodríguez et al. (2019)). Four CS schemes were applied: the DDC 23rd edition, Latindex CS, Scopus AJSC and WoS-CC CS. The approach was based on journal parallel classification among databases and completed by the expert classification approach (Zhang et al., 2016). All systems were inspected and updated as of November 2020, to guarantee data classification and results' claims, regardless of bibliographic records on the Cuban scientific output were retrieved since 2017 from all the databases. Diverging data was verified as of February 2021 for its inclusion. Major divergences and classification changes due to CS updates or database subject misassignments were closely inspected, and changes were carefully analyzed and proposed.

First, journals were classified by either CS, and confronted against the retrieved classifications for acceptance or change. Active indexed Cuban journal lists were retrieved from Latindex (www.latindex.org), with DDC codes and Latindex CS subject and sub-subject categories. DDC was consulted at <https://www.oclc.org/dewey>, and applied with expert criteria as recommended (Satija, 2013) using the DDC 23rd edition manual, its summaries and classification tables. Then, Latindex CS subject

categories were revised against that classification system with categories available at Latindex. Afterward, Latindex classifications were compared and homologated against DDC categories preserving CS differences. Assigned categories were also benchmarked against those categories assigned to other national Latin American journals with similar scope and focus (Galbán-Rodríguez et al., 2019).

Subsequently, AJSC categories were obtained with their respective classification categories and subcategories at the Scopus Journal List (www.scopus.com/sources; Scopus Sources, September 2019) with the Scopus AJSC annex data table ('ASJC classification codes') and the Scimago Journal Ranks (SJR; www.scimagojr.com). Categories and subcategories' numerical codes were obtained for Cuban indexed journals. Potentially related subject categories were aggregated for non-indexed Cuban journals by benchmarking against similar journals by title subject similarity at the Scopus source list. In each case, the journals' declared subject focus and scope at their official websites were verified. The assigned categories were then challenged against historical archives of the journals. According to the subject centrality approach, only major subcategories remained, relevant for the fractional analysis of the subject distribution in the entire scientific production. The resulting AJSC classification was also benchmarked against the previous DDC and Latindex classifications for subject coherence, considering the differences for subject allocation among CS.

A similar strategy was followed for the WoS-CC CS. Subject categories and research areas were aggregated for indexed journals from the Emerging Source Citation Index (ESCI) and the SciELO Citation Index collection lists at WoS (<https://mjl.clarivate.com/collection-list-downloads>) and confronted with Cuba indexed records retrieved on February 7th, 2021. Then, categories and subcategories were assigned to non-indexed journals by benchmarking against similar journals at either database. SCI, SSCI and AHCI subject categories were prioritized over equivalent categories for ESCI or SciELO Citation Index. The resulting classification was then challenged against the declared focus and scope of journals, and then against their historical archives. The resulting classification was then benchmarked against that of journals simultaneously indexed at Scopus in SciELO (Only SciELO journals) and WoS (Only WoS Journals) from lists available at the SJ&CR, and the assigned DDC, Latindex and Scopus classifications.

A final cross-classification table was structured for all the Cuban journals, collecting the following data: Journal number, Journal title, ISSN, DDC Class, DDC Division, DDC Section, DDC degree and subdegree, DDC numerical code, Latindex Subject, Latindex Sub-subject, Scopus Super Group, Scopus Category, Scopus Subcategory, Scopus Subcategory numerical codes, WoS-CC Research Areas and WoS-CC Category, Databases (Scopus, SciELO Citation Index (SciELO CI) and Emerging Sources Citation Index (ESCI)). Additionally, the subject distribution frequency of categories was computed and ranked according to each CS scheme for the 200 Cuban journals analyzed at the journal level. The following seven journals present in the 2020's certified Cuban academic journals list were not included: Acta Médica (ISSN 1561-3186), Agrisost (1025-0247), ATAC (0138-7553), Ciencia y Deporte (2223-1773), Monteverdia (2077-2890), Revista Cubana de Finanzas y Precios (2523-2967) and Tono (1813-5056)

Due to the major indexing of the Cuban scientific output in foreign journals in Scopus, the AJSC CS was used to compare the subject distribution of national vs. foreign journal output from 2000 to 2016 (Galbán-Rodríguez et al., 2019). The Cuban scientific output at the Scopus database was retrieved as on February

4th, 2020. Records from 2000 to 2016 in foreign journals were compiled. Then, categories were aggregated by journal from the Scopus source list with Super Group, Category and Subcategory levels. Data was structured in .ris format using the Scopus data scheme, having classification in the keywords' field. A terms co-occurrence analysis was developed, using fractional counting. Clustering and visualizations were performed on VOSviewer, version 1.6.16 (Van Eck & Waltman, 2010). Data tables were exported for general statistics on categories. Categories were clustered by the Ling/Log algorithm with attraction (2) and repulsion (-2) parameters for enhanced representation and represented with 1000 connection lines.

The same was done for quantitative data of Cuban journals' output of Cuban authors in 2000-2016 (Galbán-Rodríguez et al., 2019). Data were arranged by AJSC subject and classification records multiplied by the output on each journal. A final .ris file was then generated and subjected to the same journal classification co-occurrence analysis. Maps were scaled using the health sciences supergroup as a control relative node size, for comparative purposes. Clusters shared color codes for equivalency between both publication spaces. The general statistics of major subject areas per CS and their differences were computed and represented with Microsoft Excel 2010 (Microsoft Corporation, USA, 2010).

RESULTS AND DISCUSSION

Cross-classification table for Cuban academic journals

A uniform subject classification scheme for national journals depends on the availability of a CS bound to a national resource independent of foreign bibliographic databases. Commonly, academic systems endorse one general CS, but subject evaluation of national output is then compatible only with resources sharing it. Such CS is more adequate for a comprehensive scientific output national database, which is inexistent, so far, for Cuban academic journals beyond official serials registration lists and library collections.

These limitations are widened due to differences in time and journal coverage of databases and repositories, and the shifting nature of scientific disciplines towards interdisciplinarity. These elements do not necessarily get updated on the declared journals scope, and upon indexing at databases. Regardless of a global serial's directory, the updating for academic journals done by Ulrich's Periodicals Directory (<http://ulrichsweb.serialssolutions.com>), could be incomplete. This problem was found in Cuban academic journals coverage as of November 3rd, 2020. Just 12 out of 207 nationally certified scholarly journals as of 2020 appeared indexed.

To avoid all the above-mentioned limitations, in this work, a cross-classification table was structured using DDC 23rd edition, Latindex, WoS and Sopus AJSC CS for the subject classification of 200 Cuban academic journals regardless indexing.

Distribution of Cuban journals among CS categories

An exploratory analysis of these systems identified that Latindex was the leading indexing resource, with 189 out of the 200 analyzed journals, 177 of them with DDC numerical codes, followed by SciELO Citation Index (78) and ESCI (20), and finally Scopus (26). The 200 journals which output was previously analyzed for the 2000-2016 period were chosen (Galbán-Rodríguez et al., 2019). Hence, Latindex was selected as starting CS with 189 journals classified, which were revised against the DDC following the DDC 23rd edition manual's recommendations.

DDC

Up to 161 out of the 200 journals assessed were classified coincident with their DDC classification assigned at Latindex at Class level, 149 at Division level and 97 at the section level, as of November 6th, 2020. Up to 26 journals had not declared numerical code or were not indexed at Latindex directory, which were classified during this work. Seven multidisciplinary journals received broad category additions due to their interdisciplinary and multidisciplinary contents. More importantly, ten journals were relocated in the CS, due to contents and scopes divergent from those declared at the Latindex platform (Table 1; Appendix 1).

According to the DDC 23rd edition, 178 out of the 200 Cuban journals were assigned to unique classes, 11 to two classes and 11 to three classes. This last group comprised 11 multidisciplinary journals classified by Science/Technology/Social sciences, with only one exception classified by Technology/Social sciences/Philosophy & psychology. As expected for analyzing academic journals, all DDC classes were represented, except for *200-Religion* due to source type. Major classes were Technology with 116 journals, Social Sciences (62), Science (29) and Arts & recreation (11). At the Division subject classification level, 181 journals belong to a single category, eight to two and the last 11 journals to three categories. They grouped in journals covering topics on Medicine & health (61), Technology (41), Agriculture (27), Social sciences, sociology & anthropology (23), Education (22) and Science (11).

The third DDC subject level (Section) comprised 184 journals with one category, 13 with two and two with three. The 11 multidisciplinary journals and the journal *Humanidades Médicas*, were classified just to the Division level, due to their subjects' variety. The most frequent sections were: Medicine and health (27), Education (15), Diseases (12) and Higher education (Tertiary education) (10). The leading group on Medicine and health were multisubject journals within that classification section, not the 11 journals on Diseases comprising specialized medical and public health journals. Moreover, journals on the Division category of Education were distributed among sections Education (11) for general multilevel pedagogy journals; Higher education (Tertiary education) (11) for journals on specialized college education, such as medicine or nursing; and Athletic and outdoor sports and games (7) for journals devoted to physical education and sports training but differentiated from pedagogical journals. This relative distribution of journals on sections related to Medicine & health vs. Education journals is consistent with the relative subject distribution among the Cuban labor workforce and institutions (Galbán-Rodríguez et al., 2021).

Table 1. Revised subject classification of Cuban journals in the SciELO Citation Index (Web of Science) and Dewey Decimal Classification 23rd edition (data retrieved on November 6th, 2020)

SciELO Citation Index (WoS)		
Journal	Current classification	Reassigned
Revista de Protección Vegetal	Acoustics	Agricultural Engineering; Agronomy
Revista de Salud Animal	Acoustics	Agriculture, Dairy & Animal Science; Veterinary Sciences
Dewey Decimal Classification System		
Journal	Classification	Reassigned (DDC Section or Division (general))
Anuario de la Facultad de Ciencias Económicas y Empresariales	332 Financial economics	658.1 Organization and financial management
Arrancada	300 Social sciences	796.07 Athletic and outdoor sports and games. Education, research, related topics
Boletín del Archivo Nacional	300 Social sciences	025 Operations of libraries, archives, information centers
Ciencia en su PC	004 Computer science	500; 600; 300 Science; Technology; Social sciences
Ciencia y Actividad Física	613.71 Personal health and safety. Physical fitness	796.07 Athletic and outdoor sports and games. Education, research, related topics
Educación Médica Superior	378 Higher education (Tertiary education)	610.71 Medicine and health. Education, research, nursing, services of allied health personnel
Islas	900 History, geography, and auxiliary disciplines	306 Culture and institutions
Revista Cubana de Ciencias Informáticas	621.39 Applied physics. Computer engineering	004 Computer science
Revista Cubana de Información en Ciencias de la Salud	610 Medicine and health	025.06 Operations of libraries, archives, information centers. Information storage and retrieval systems devoted to specific subjects
Revista de Arquitectura e Ingeniería	600 Technology (Applied sciences)	720 Architecture
Santiago	700 The arts	300 Social sciences

Latindex CS

The Latindex CS was benchmarked against the previous DDC categories while considering differences in their respective CS schemes. In general, the Subject categories distributed among the 200 Cuban journals as follows: Social Sciences (66), Medical Sciences (62), Exact and Natural Sciences (26), Agricultural Sciences (26), Engineering Sciences (20), Multidisciplinary (11), and Arts and Humanities (8) (Appendix). 181 journals contributed to a single Subject category, and two categories covered 19 journals. At the Sub-subject level, 136 subcategories were identified, the most frequent: Medicine (47), Education (30), Agronomy (20), Public Health (16), Higher Education (16), Pedagogy (15) and 11 multidisciplinary (multidisciplinary journals). A higher rate of coincidence among DDC and Latindex CS was seen in Education, Higher Education and Pedagogy journals, with respect to the rest.

Scopus AJSC CS

Like the DDC 23rd edition and the Latindex CS, certified Cuban academic journals comprised 11 multidisciplinary journals at Scopus and WoS. Regarding the actively indexed journals at those databases, 78 journals were covered by WoS in the SciELO Citation Index (data from February 2021), and 19 by ESCI subcollection, with 11 journals overlapped. This fact represents 87 journals with at least one WoS subject category assigned. There were even fewer at Scopus with 26 journals (23 of them active nowadays), and 24 of them were coincident in both databases (Galbán-Rodríguez et al., 2021). This fact accounted for 88 journals indexed and then classified in at least one of these databases.

The AJSC CS scheme is a three levels' system: Super Group, Subject category and Subcategory (Appendix). Scopus showed a Super Group subject distribution by frequency as follows: Social Sciences (76 journals), Health Sciences (64), Life Sciences (50), Physical Sciences (37) and Multidisciplinary (11). Curiously, more journals are identified publishing social sciences-related contents than for Medicine, a trend opposite to that seen for scientific output. The medical journals' productivity was higher (see below). From the whole amount of journals analyzed, 162 were covered by a single Supergroup category, 34 journals share two, and four journals share three.

At the category level, major areas were: Social sciences (59); Medicine (57); Agricultural and Biological Sciences (37); Engineering (18); Arts and Humanities (14); Environmental Science (14); Business, Management and Accounting (13) and Multidisciplinary (11). They distributed by the number of subjects assigned to journals as follows: 119 with only one category assigned, 62 with two and 18 with three.

At subject subcategory, the most represented areas were: Education (35); Medicine (miscellaneous) (28); Public Health, Environmental and Occupational Health (19); Plant Science (17); Agronomy and Crop Science (17); Industrial and Manufacturing Engineering (11); Multidisciplinary (11), Ecology, Evolution, Behavior and Systematics (10); Food Science (10) and Animal Science and Zoology (10) and there were other 155 subcategories. There were also nine journals related to Sports science, coincident with the general number; however, two of them were related to medicine and sports, and seven to sports education. By frequency, they covered up to six categories per journal: 53 with one, 54 with two, 42 with three, 32 with four, three with five and one with six. In general, AJCS SC showed higher granularity than DDC and Latindex classification schemes.

WoS-CC CS

Regarding Research Areas, the WoS-CC scheme were distributed in: Life Sciences and Biomedicine (105 journals), Social Sciences (58), Technology (15), Physical Sciences (14), Arts & Humanities (12) and Multidisciplinary (11). One hundred eighty-five journals belong to one Research Area, and the rest shares two (Appendix). Similarly, major Subject categories were: Education & Educational Research (32); General & Internal Medicine (16); Agronomy (14); Multidisciplinary Sciences (11); Public, Environmental & Occupational Health (11). There were other 122 more specialized and specific subject categories. There were 69 journals with one category, 18 with two and four with three.

Analysis of classification divergences among databases

Cuban journals were defined as subject-specific publications by the four applied CS. All the four CS identified the 11 Cuban multidisciplinary journals differently. A major difference is found in DDC with respect to the more contemporary Latindex, Scopus AJSC and WoS CS. Medicine is classified as a major independent category, and not as a Technology related field as in DDC. Another relevant difference is the classification depth, which is more detailed in Scopus AJSC and DDC CS. More importantly, these sources identified a more significant number of journals on Social sciences-related contents than Medicine, opposed to the trend seen in Latindex or DDC (Table 2).

Table 2. Subject distribution of Cuban academic journals at the lower subject classification level by either Subject Classification system: Dewey Decimal Classification 23rd edition (DDC), Latindex, Scopus and Web of Science Core Collection (WoS-CC).

Database	Journal subject rank				
	1	2	3	4	5
DDC	Medicine and health 27	Education 15	Diseases 12	Multidisciplinary 11	Higher education (Tertiary education) 10
Latindex	Medicine 47	Education 30	Agronomy 20	Public Health 16	Higher Education 16
Scopus	Education 35	Medicine (miscellaneous) 28	Public Health, Environmental and Occupational Health 19	Agronomy and Crop Science 17	Industrial and Manufacturing Engineering; Multidisciplinary 11
WoS-CC	Education & Educational Research 32	General & Internal Medicine 16	Agronomy 14	Public, Environmental & Occupational Health; Multidisciplinary 11	Plant Sciences 9

To balance these elements for subject mapping, there should be required the aggregation of major CS categories with the bottom subject subcategory level. Due to their higher granularity, major subcategories

may occlude the relevance of less structured or represented categories, despite differentiating them. That could be why subject distribution comparisons at the country level are more populated on Technical and Medicine-related subjects than Social Sciences and Arts & Humanities. Based on the properties seen, the Scopus AJSC was selected for pairwise comparison of subject distribution between foreign and Cuban journals, due to its major coverage of foreign journals compared to WoS.

The most notorious divergencies in journal categories were found for the journals *Revista de Protección Vegetal* and *Revista de Salud Animal*, both classified under ‘Acoustics’ at SciELO-CI, even in February 2021 (Table 1). An adequate classification could be ‘Agricultural Engineering; Agronomy’ and ‘Agriculture, Dairy & Animal Science; Veterinary Sciences’. Similarly, two multidisciplinary journals were re-classified: *Infociencia* and *Ciencia en su PC*. These were erroneously under Computer Science, perhaps due to their titles, despite their declared multidisciplinary focus and scope (Table 1).

A general aspect is the relatively low classification detail at the section level for most journals at Latindex using the DDC CS, despite the adequate classification at the Division level. This problem was perfected in this work down to Section, degree and sub-degree levels accordingly, which would be incorporated at the Directory.

Despite most Cuban journals’ disciplinary core focus, there is an emergent trend towards multidisciplinary, interdisciplinarity, transdisciplinarity, due the applied character of most works. That is the case of educational journals publishing educational institution’s role as frameworks for societal development. An example is the journal *Universidad y Sociedad* (i.e., University & Society), comprising works done at the university with a projection towards society. It has progressively diverted from the original academic environment, with a pronounced educational focus towards far more complex and multidisciplinary enterprise management, political sciences and life sciences subjects.

A similar phenomenon also arises from journals inheriting preceding journal ages or titles, with an inherent change in the focus and scope, as for *Acimed* into *Revista Cubana de Información en Ciencias de la Salud* (RCICS) in 2012. The subject change was from Library and Information Sciences towards the projections of those topics on Medical Sciences and Public Health under subcategory 3605 Health Professions at Health Information Management. This change tends to mask the former subjects which are no longer described as such, and led to concerns on its retrieval by subject category at the database, despite the possibility for retrieval at article level (Arencibia-Jorge & Peralta-González, 2020).

The same happens for other social sciences subjects applied to technical areas on Medicine and Health, as for Information Literacy (Galbán-Rodríguez & Martí-Lahera, 2016). Perhaps these unveil a distinctive feature of major current databases CS to reinforce major subject areas for retrieval and citation metrics, in detriment of those instrumental or not fostered as strong by technological research. This is seen in WoS CS with a preference for technology at major research areas for some social sciences subcategories found classified at higher aggregation levels in the other CS. A more disaggregated and detailed grouping of WoS subject categories has been implemented by the Dutch Science and Technology Observatory (NOWT) for WoS categories (NOWT-WoS) (http://www.cwts.nl/pdf/nownt_classification_sc.pdf). Another difference comes from discipline vs. subject oriented focus as happens for DDC compared to the other three CS. This determines that classification criterion is driven mainly from the community of

practice rather than subject analysis of the published content. This could be the cause for the divergence, for instance, in the DDC classification at Latindex for *Revista Cubana de Ciencias Informáticas* (621.39 Applied physics. Computer engineering) and the proposed subject-oriented Computer science in the present approach. Ultimately, and as stressed by Olson, every CS relies in a culturally-grounded hierarchical arrangement for similarity (Olson 2001).

Another concurrent effect is the evolution of science into a more interdisciplinary and complex corpus. Therefore, it is more difficult to be mapped from the very same sources by established and more traditional CS. Moreover, certain divergence between classification systems at journal vs. article level has been found. For instance, Shu et al. (2019) found about 46 % divergence between the discipline assigned to journals and to the papers published on them. They compared Journal vs. Article classification of the output registered for 869 journals at the Chinese Science Citation Database (Shu et al., 2019).

The opposite is also valid for the Digital Humanities (*Computer Science* projected towards the *Social Sciences* and the *Arts & Humanities*). This relates to the preferential subject focus and representation in those databases of core and major research fields for citation metrics, rather than Information research areas. In this regard, Wang and Whatman reported similar inconsistencies in journal classification in the WoS-CC and Scopus, specifically for journals in the field of *Library and Information Science* (Wang & Waltman, 2016). They employed a citation-based classification system with two main criteria for studying category assignment accuracy. The aim was to detect both misassigned journals to a category and identify the possible correct category for those journals. They found that too many categories can be found assigned to a given journal at Scopus and WoS. In contrast, interdisciplinary and multidisciplinary categories are available in those fields in the latter. They also proposed improvement strategies by merging similar labels (Wang & Waltman, 2016).

Furthermore, this evidences the emerging need for information systems integrating qualitative indicators at the article's bibliographic record level, such as Quartile information and subject category at Scopus, due to its transitive nature. This is required nowadays for more structured and multidimensional metric analysis, beyond the commercial boundaries of most databases and resources. In this regard, subject categories are integrated into bibliographic data, while those qualitative indicators are not, as seen in the WoS-CC records.

Overall, these preceding subject classification divergences evidence the source subject classification systems' approximate nature. Journal-level classification systems have shown their shortcomings for other purposes than retrieval, with propositions of alternative systems made as to the case of the two-level hierarchical system proposed by Glanzel and Schubert for scientometric evaluation of research fields (Glanzel and Schubert, 2003). Therefore, different approaches centered on content representation at the article level have been developed, as the article-level metric system established by the Leiden University, named CWTS Leiden Ranking, based on the WoS-CC bibliographic data together with enriched data (Waltman & Van Eck, 2012; Traag et al., 2019). Previous studies on bibliometric analysis for document classification at article level have found divergences to classification systems at the journal level for the same documents, indicating their lower accuracy for document knowledge representation (Klavans & Boyack, 2016). For instance, bibliographic coupling could render updated information on document subject classification focused on most recent bibliographies (Boyack & Klavans, 2010). Historical

literature in the cited references could be more influential on direct citation-driven taxonomies. Conversely, journal classification would have to coincide in general with ontology-based approaches at the journal level (Mitchell & Panzer, 2013), at least partially.

Comparison of Cuban scientific output subject distribution in Cuban journals vs. foreign journals in Scopus according to the AJSC

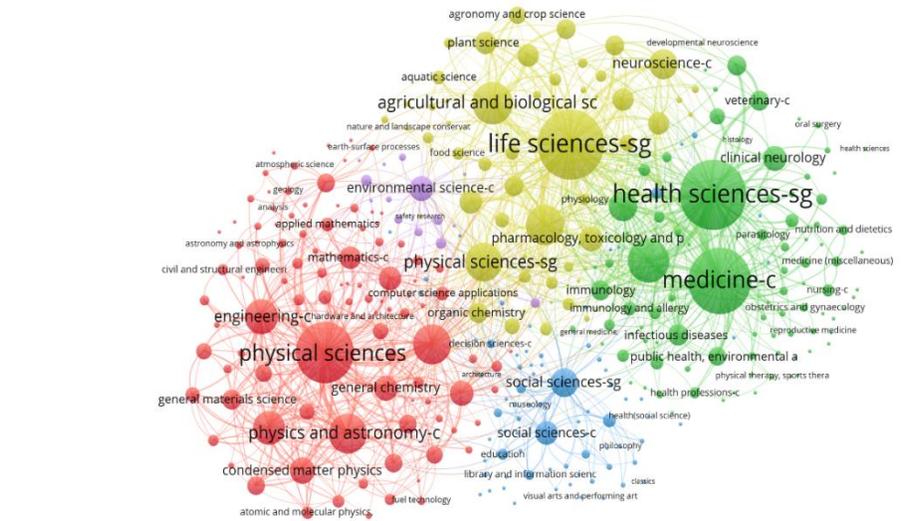
Taking advantage of the cross-classification table's availability, hence, it is possible to compare the relative subject distribution of Cuban scientific output in Cuban and foreign academic journals. Scopus was selected as the main source of Cuban academic output in foreign journals due to their highest representativeness (Galbán-Rodríguez et al., 2019). As previously computed, the Cuban output in national journals was then compared against the Cuban output in Scopus from 2000 to 2016 (data collected as of February 2020). Foreign journals are more varied in numbers of journals and subject representativeness. In contrast, Cuban journals are less varied but of higher productivity, accounting for 78 % of the total scientific output in 2000-2016. The Scopus output subset stands roughly for 67 % of the scientific Cuban production in foreign journals, which accounted for only 22 % of the total Cuban work (Galbán-Rodríguez et al., 2019).

To reflect the hierarchical structure of the AJSC SC (Super Group, Subject category and Subject subcategory), its three CS levels were aggregated per journal. For this, it was used the numerical code classification in the Scopus source list for 2019, which were inherited from Scopus records with the aid of a custom Microsoft Word VBA macro for data aggregation. Then, the three hierarchical CS levels were assigned progressively to each journal. A similar analysis was done with a bibliographic record structured for all the Cuban academic journals (Galbán-Rodríguez et al., 2019). Fractional analysis was done for a balance representativeness of terms, and contents were mapped with the aid of the VOSviewer software, version 1.6.16. For this, a .ris file with the Scopus metadata scheme was structured in Microsoft Excel, and classification data were inserted in the Keywords field. As shown, the Cuban output in Cuban certified journals shows a distinctive differentiated subject distribution hallmark as compared to the Cuban output published in foreign journals (Figure 1).

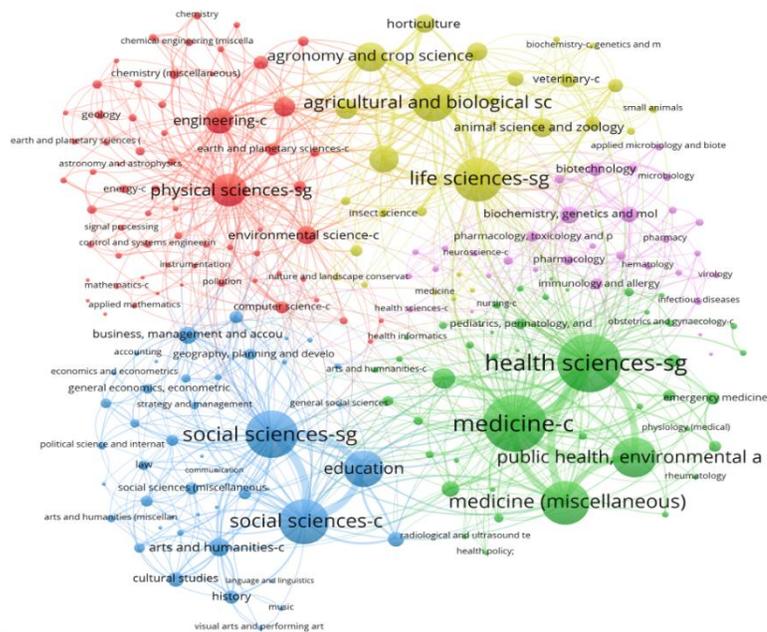
Maps were generated using term co-occurrence and the Keywords field's fractional analysis in Scopus .ris data scheme (see Materials and methods for details).. Data were arranged by the record, and Scopus ASJC classification levels were aggregated in Supergroup (-sg), Category (-c) and Subcategory. Maps were scaled using the health sciences supergroup as a relative node size reference for comparative purposes. To further delineate this, a relative frequency distribution plot was established at the Subject subcategory level with the Scopus AJSC CS, to easily identify those areas in which Cuban journals are the most widely used route of diffusion for the Cuban scientific output (Table 3).

As shown in Figure 1, the four major subject areas are more balanced in national than in foreign journals.

Figure 1. Comparative mapping of the Cuban scientific production published in foreign and national journals, using the third subject subcategory level of the Scopus AJSC classification system. A) Output in foreign journals covered by Scopus; B) Output in 200 Cuban journals.



A VOSviewer



B VOSviewer

Table 3. Comparative subject distribution of Cuban academic output among foreign journals at Scopus and the 200 Cuban academic journals, according to the 20 top ASJC Scopus subject classification system categories*

Cuban journals			Foreign journals		
Subject	Frequency	%	Subject	Frequency	%
health sciences-sg	36087	43.65	health sciences-sg	6426	39.25
medicine-c	33357	40.35	life sciences-sg	6381	38.97
social sciences-sg	23041	27.87	medicine-c	5808	35.47
social sciences-c	20712	25.05	physical sciences	4899	29.92
medicine (miscellaneous)	20514	24.81	general medicine	2484	15.17

life sciences-sg	20138	24.36	agricultural and biological sciences-c	2406	14.69
public health, environmental and occupational health	16770	20.28	chemistry-c	2178	13.30
agricultural and biological sciences-c	14586	17.64	biochemistry, genetics and molecular biology-c	2170	13.25
education	13952	16.88	physics and astronomy-c	2152	13.14
physical sciences-sg	11485	13.89	physical sciences-sg	1943	11.87
agronomy and crop science	8678	10.50	engineering-c	1682	10.27
plant science	7516	9.09	materials science-c	1579	9.64
engineering-c	6922	8.37	neuroscience-c	1227	7.49
multidisciplinary	5020	6.07	immunology and microbiology-c	1220	7.45
multidisciplinary-sg	5020	6.07	social sciences-sg	1155	7.05
health policy	4606	5.57	condensed matter physics	947	5.78
general-c	4380	5.30	pharmacology, toxicology and pharmaceuticals-c	875	5.34
soil science	4265	5.16	general chemistry	869	5.31
industrial and manufacturing engineering	4061	4.91	environmental science-c	859	5.25
animal science and zoology	3890	4.71	chemical engineering-c	833	5.09
Total output	82 672	–	Total output	16374	–

*AJSC comprises the three Super Group (-sg), Subject Category (-c) and subject subcategory classification levels. Representative percentages are not additive, due to classification category overlapping.

Comparatively, physical sciences are less represented in Cuban than in foreign journals, the opposite of social sciences, which are more represented in Cuban journals. Our results are conciliatory of previous studies, either national or regional, with partial or multiple subject focus on the Cuban scientific production (Sancho et al., 1993; Arencibia Jorge et al., 2012; Confraria & Vargas, 2019). These comprise analyses of major subject areas of medicine and public health (Arencibia Jorge et al., 2012; Zacca-Gonzalez et al., 2018), education (Rodríguez Castilla & Remón Saborit, 2013), agriculture and biological sciences (Rodríguez-Sánchez et al., 2013; Guerrero-Casado, 2017) and biomedical and biopharmaceutical sciences (Arencibia-Jorge et al., 2016). Previous works have also identified physical sciences as a major research area for Cuban authors, particularly in foreign rather than in Cuban journals, at WoS (Werner &

Cardona, 2014) and Scopus (Arencibia-Jorge & Moya-Anegón, 2010). The health sciences, life sciences and agricultural sciences are equivalently represented in both spaces. Noteworthy, the highest production in ‘public health, environmental and occupational health’ was found in Cuban journals.

The physical sciences supergroup clustering with life sciences in foreign journals indicates the larger contribution of these journals with applied research in the life sciences. The social sciences show the relative same balance in the supergroup node, with the category education as the main subcategory at both spaces. Overall, the Social Sciences are more developed in national vs. foreign journals. The ‘library and information science’ subcategory stands in foreign than in Cuban journals as a significant research area. On the contrary, academic output on areas as law, ‘business, management and accounting-c’, ‘general economics, econometrics and finance’ and ‘geography, planning and development’ are mostly represented in Cuban journals.

In this sense, there is also space for a higher representation, specifically in law and psychology, since both the *Revista Cubana de Psicología* (i.e., Cuban Journal of Psychology) and *Revista Cubana de Derecho* (i.e., Cuban Journal of Law) are long-tradition, uncertified journals. These journals could comply with certification criteria and be aggregated to the current academic output. Something similar happens with the *Revista Cubana de Veterinaria* (i.e., Cuban Veterinary Journal) in the agricultural sciences. Overall, the higher development of the Cuban social sciences is represented in Cuban rather than foreign journals, making of them mandatory for studying those research areas.

A fifth cluster was aggregated in both publication spaces. The Foreign journals cluster corresponds to ‘environmental science’ subject category, while in the Cuban journals one, the aggregated categories were ‘biochemistry, genetics and molecular biology’ and ‘immunology and microbiology’. These last are also major publication areas in foreign journals, mainly developed by institutions belonging to the Cuban biotechnological and pharmaceutical industry (BioCubaFarma).

Nevertheless, the big picture in supergroups and category levels are lost in previous studies, particularly due to the single use of subcategory level representation, which misses the global view of the hierarchical classification. Moreover, the preponderance of specific subcategories somewhat occludes major research areas’ relevance, as happens with social sciences. Therefore, the current work also proposes a possible enhancement for representation that could be implemented in studies or Scopus-based scientometrics tools, taking into account not only subcategories but also supergroups and categories of the AJSC CS.

CONCLUSIONS

In summary, and as far as we know, this work provided the first attempt to propose a cross-subject classification system for the Cuban scientific and academic journals. It can be further expanded by adding other national journals or information resource-bound subject CS. Importantly, subject classification was revised for the national journals and corrections proposed for those identified as mistakenly assigned. Together with national scientific output quantitative measures, this work provided the first comparative distribution by subject area classification of the national scientific output in academic journals. It also presented a framework for its progressive analysis or its integration as part of the national output’s active information resources. Importantly, it helps to identify those subject areas in which national journals’

contents are more idiosyncratic. Those journals become preferential venues for publishing national content on those subjects rather than foreign journals. This is fundamental for STI policies, and scientific and academic certification processes and committees, and to deploy strategies for enhancing collaboration and resource allocation for those underrepresented scientific subject areas.

At the same time, this work provided a closer look at the relative distribution of national multidisciplinary journals, as well as those related to athletic and outdoor sports and games and environmental science. It is important to establish strategies to foster the editing specialization in those journals. Moreover, this work could help to develop the national bibliographic databases or repositories, with connections to library and information science resources, further facilitating database indexing processes. The results obtained here could also be improved by applying article-level classification systems in the future. All the academic journals analyzed in this study can be compared to foreign journals attending to subject distribution as a whole, when considering the classification systems included: Scopus AJSC and Scimago, WoS-CC, Latindex and DDC 23rd edition. This will also aid upon their progressive incorporation and indexing into databases and collections of academic publications. Classification can also be improved in those databases for journals with inadequate classification.

Overall, the results obtained could be used comparatively for a general distribution in subject areas of the Cuban academic journals and the scientific output of Cuban authors. This could be made regardless of its database indexing. Care must be taken due to the discipline-oriented nature of most Cuban journals. Current science is interdisciplinary. The application of ontology-based classification systems could indicate changes in some of the categories assigned by expert review approaches at the journal level, as in this study. So far, this is a significant step forward for the analysis of the Cuban scientific output with a multi-database criterion. Moreover, this will improve the descriptive power and statistical performance of existing or upcoming classification projects of the scientific Cuban output.

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BIBLIOGRAPHIC REFERENCES

- Arencibia-Jorge, R., & de Moya-Anegón, F. (2010). Challenges in the study of Cuban scientific output. *Scientometrics*, 83(3), 723-737. <https://doi.org/10.1007/s11192-009-0150-7>
- Arencibia Jorge, R., Vega Almeida, R. L., Chinchilla Rodríguez, Z., Corera Álvarez, E., & de Moya Anegón, F. (2012). Specialization Patterns in the Cuban national health research. *Rev Cubana Salud Públ*, 38(5), 734-747. <https://doi.org/10.1590/s0864-34662012000500007>

- Arencibia-Jorge, R., Corera-Alvarez, E., Chinchilla-Rodríguez, Z., & de Moya-Anegón, F. (2016). Scientific output of the emerging Cuban biopharmaceutical industry: a scientometric approach. *Scientometrics*, 108(3), 1621-1636. <https://doi.org/10.1007/s11192-016-2023-1>
- Arencibia-Jorge, R., & Peralta-González, M. J. (2020). Recommendations on the use of Scopus for the study of Information Sciences in Latin America. *Iberoam J Sci Measurm Commun*, 1(1). <https://doi.org/10.47909/ijsmc.07>
- Boyack, K.W., & Klavans, R. (2010). Co-citation analysis, bibliographic coupling, and direct citation: Which citation approach represents the research front most accurately? *J Am Soc Inf Sci Technol*, 61(12), 2389–2404. <https://doi.org/10.1002/asi.21419>
- Confraria, H., & Vargas, F. (2019). Scientific systems in Latin America: performance, networks, and collaborations with industry. *Journal of Technology Transfer*, 44, 894-915. <https://doi.org/10.1007/s10961-017-9631-7>
- Galbán-Rodríguez E & Martí-Lahera Y. (2016). Evolutionary overview of the scientific production on Information Literacy indexed in Scopus from 1998 to 2014. Congreso Internacional de Información INFO'2016. https://www.researchgate.net/profile/Yohannis-Marti-Lahera/publication/309673886_Evolutionary_overview_of_the_scientific_production_on_Information_Literacy_indexed_in_Scopus_from_1998_to_2014/links/581ca9de08ae12715af202d6/Evolutionary-overview-of-the-scientific-production-on-Information-Literacy-indexed-in-Scopus-from-1998-to-2014.pdf
- Galbán-Rodríguez, E., Torres-Ponjuán, D., Martí-Lahera, Y., & Arencibia-Jorge, R. (2019). Measuring the Cuban scientific output in scholarly journals through a comprehensive coverage approach. *Scientometrics*, 121(1), 1019-1043. <https://doi.org/10.1007/s11192-019-03233-6>
- Galbán-Rodríguez, E., Torres-Ponjuán, D., & Arencibia-Jorge, R. (2021). Multidimensional quantitative analysis of the Cuban scientific output and its regional context. *Scientometrics*, 126(3), 2643-2665. <https://doi.org/10.1007/s11192-021-03904-3>
- Glanzel, W., & Schubert, A. (2003). A new classification scheme of science fields and subfields designed for scientometric evaluation purposes. *Scientometrics*, 56(3), 357-367. <https://doi.org/10.1023/a:1022378804087>
- Hjørland, B. (2012). Is classification necessary after Google? *J Document*, 68(3), 299-317. <https://doi.org/10.1108/00220411211225557>
- Klavans, R., & Boyack, K. W. (2016). Which type of citation analysis generates the most accurate taxonomy of scientific and technical knowledge? *J Assoc Inf Sci Technol*, 68(4), 984-998. <https://doi.org/10.1002/asi.23734>

- Lazarini, F. (2015). *Cataloguing and Classification. An introduction to AACR2, RDA, DDC, LCC, LCSH and MARC 21 Standards*. Kidlington, UK: Chandos Publishing. <https://www.sciencedirect.com/book/9780081001615/cataloguing-and-classification>
- Mitchell, J. S., & Panzer, M. (2013). Dewey linked data: making connections with old friends and new acquaintances. *Italian J Arch Inf Sci*, 4(1), 177-199. <http://digital.casalini.it/10.4403/jlis.it-5467>
- Olson, H. A. (2001). Sameness and difference. A cultural foundation of classification. *Lib Resour Tech Serv*, 45(3), 115-122. <https://doi.org/10.5860/lrts.45n3.115>
- Satija, M. P. (2013). *The theory and practice of the Dewey Decimal Classification system*. 2nd Edition. Oxford: Chandos Publishing. <https://www.sciencedirect.com/book/9781843347385/the-theory-and-practice-of-the-dewey-decimal-classification-system#book-info>
- Shu, F., Julien, C. A., Zhang, L., Qiu, J., Zhang, J., & Larivière, V. (2019). Comparing journal and paper level classifications of science. *J Informetrics*, 13, 202-225. <https://doi.org/10.1016/j.joi.2018.12.005>
- Rodríguez Castilla, L., & Remón Saborit, C. A. (2014). Producción Científica en Ciencias de la Educación y Ciencias Pedagógicas en el período 2005-2013, reflejada en Revistas Cubanas de la red del Ministerio de Educación Superior (MES). *Ref Pedag*, 2(1), 2308-3042. <https://rrp.cujae.edu.cu/index.php/rrp/article/view/47>
- Rodríguez-Sánchez, Y., Casate-Fernández, R., Sánchez-Rojas, C., Arencibia-Jorge, R., Rogel-Salazar, R., Becerril-García, A., & Aguado-López, E. (2013). *Informe sobre la producción científica de Cuba y el Caribe en revistas iberoamericanas de acceso abierto en redalyc.org, 2005-2011*. Cuba, México: Instituto de Información Científica y Tecnológica, Universidad Autónoma del Estado de México. <http://hdl.handle.net/20.500.11799/572>
- Traag, V.A., Waltman, L., & Van Eck, N.J. (2019). From Louvain to Leiden: Guaranteeing well-connected communities. *Scientific Rep*, 9, 5233. <https://doi.org/10.1038/s41598-019-41695-z>
- Ullah, A., Khusro, S., & Ullah, I. (2017). Bibliographic Classification in the Digital Age: Current Trends & Future Directions. *Inf Technol Libr*, 36(3), 48-77. <https://doi.org/10.6017/ital.v36i3.8930>
- Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523-538. <https://doi.org/10.1007/s11192-009-0146-3>
- Waltman, L., & van Eck, N. J. (2019). Field Normalization of Scientometric Indicators. In Glänzel W, Moed HF, Schmoch U, Thelwall M, editors. *Springer Handbook of Science and Technology Indicators*. Cham: Springer Nature Switzerland AG, 281-300. https://doi.org/10.1007/978-3-030-02511-3_11

- Waltman, L., & Van Eck, N.J. (2012). A new methodology for constructing a publication-level classification system of science. *J Am Soc Inf Sci Technol*, 63(12), 2378-2392. <https://doi.org/10.1002/asi.22748>
- Wang, Q., & Waltman, L. (2016). Large-scale analysis of the accuracy of the journal classification systems of Web of Science and Scopus. *J Informetrics*, 10(2), 347-364. <https://doi.org/10.1016/j.joi.2016.02.003>
- Werner, W., & Cardona, M. (2014). Physics in Cuba from the perspective of bibliometrics. In A. Baracca, J. Renn & H. Wendt (Eds.), *The history of Physics in Cuba* (Vol. 304, pp. 423-437). Dordrecht: Springer Science+Business Media.
- Zacca-González, G., Chinchilla-Rodríguez, Z., & Vargas-Quesada, B. (2018). Medical scientific output and specialization in Latin American countries. *Scientometrics*, 115(3), 1635-1650. <https://doi.org/10.1007/s11192-018-2717-7>
- Zhang, J., Liu, X., & Wu, L. (2016). The study of subject-classification based on journal coupling and expert subject-classification system. *Scientometrics*, 107(3), 1149-1170. <https://doi.org/10.1007/s11192-016-1890-9>

Appendix 1.

Cross-classification table of Cuban academic journals in DDC, Latindex, Scopus and WoS classification systems. Indexing at Emerging Sources Citation Index (ESCI), SciELO Citation Index (SciELO CI) and Scopus is included (Database's category).

Register's structure:

Journal No. |Journal title|ISSN| DDC-Class | DDC-Division| DDC-Section| DDC-Degree & Subdegree|DDC-code| Latindex-Subject|Latindex-Subsubject| Scopus-SuperGroup| Scopus-Category|Scopus-Subcategory|Scopus-Code|WoS-ResearchArea|WoS-Subject Category|Database (ESCI, SciELO CI & Scopus)|

01|Acción|IS:1812-5808|Arts & recreation|Sports, games & entertainment|Athletic and outdoor sports and games|Education, research, related topics|796.07|Social Sciences|Sports, Education|Social Sciences|Social Sciences|Sports science; Education|3304|Life Sciences & Biomedicine; Social Sciences|Sport Sciences; Education & Educational Research|None

02|Acta Botánica Cubana|IS:0138-6824|Science|Biology; Plants (Botany)|Natural history of organisms and related subjects; Specific topics in natural history of plants|NA|578; 581|Exact and Natural Sciences|Biology, Botany|Life Sciences|Agricultural and Biological Sciences|Plant Science; Ecology, Evolution, Behavior and Systematics|1110; 1105|Life Sciences & Biomedicine|Plant Sciences|None

03|Acta Médica del Centro|IS:1995-9494|Science|Medicine & health|Medicine and health|NA|610|Medical Sciences|Public Health|Health Sciences|Medicine|General Medicine|2700|Life Sciences & Biomedicine|General & Internal Medicine|None

04|Acuacuba|IS:1608-0467|Technology|Agriculture|Hunting, fishing, conservation, related technologies|Culture of cold-blooded vertebrates|639.3|Agricultural Sciences|Fishery|Life Sciences|Agricultural and Biological Sciences|Aquatic Science; Food Science|1104; 1106|Life Sciences & Biomedicine|Fisheries; Marine & Freshwater Biology|None

05|Agrotecnia de Cuba|IS:2414-4673|Technology|Agriculture|Specific techniques; apparatus, equipment, materials|NA|631|Agricultural Sciences, Exact and Natural Sciences|Agronomy, Animal husbandry, Silviculture, Biology, Botany|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Plant Science; Soil Science; Horticulture|1102; 1110; 1111; 1108|Life Sciences & Biomedicine|Agricultural Engineering; Agronomy|None

06|Alcance|IS:2411-9970|Computer science, information & general works; Social sciences|News media, journalism & publishing; Social sciences, sociology & anthropology|General; Social interaction|Media (Means of communication)|070; 302.23|Social Sciences|Communication Sciences, Library Science, Information Sciences|Social Sciences|Social Sciences|Communication; Library and Information Sciences|3315; 3309|Technology|Communication; Information Science & Library Science|SciELO CI

07|Anales de la Academia de Ciencias de Cuba|IS:2304-0106|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

08|Anuario Científico Cecmed|IS:1817-3152|Technology|Medicine & health|Pharmacology and therapeutics|Drugs (Materia medica); Therapeutics|615.1; 615.5072|Medical Sciences|Pharmacology, Pharmacy, Medicine, Toxicology|Health Sciences; Life Sciences|Medicine; Pharmacology, Toxicology and Pharmaceutics|Health Policy; Drug Discovery; Pharmacology, Toxicology and Pharmaceutics (miscellaneous); Pharmacology; Drug Guides; Medicine (miscellaneous)|2719; 3002; 3001; 3004;2709; 2701|Life Sciences & Biomedicine|Health Policy & Services; Research & Experimental; Pharmacology & Pharmacy|None

09|Anuario de la Facultad de Ciencias Económicas y Empresariales|IS:2218-3639|Technology|Management & public relations|General management|Organization and financial management|658.1|Social Sciences|Accounting, Economics, Enterprise economics|Social Sciences|Business, Management and Accounting|Business, Management and Accounting (miscellaneous); Organizational Behavior and Human Resource Management|1401; 1407|Social Sciences|Economics; Management; Business, Finance|None

10|Anuario del Centro de Estudios Martianos|IS:0864-1358|History & geography|History of North America; Biography & genealogy|Mexico, Central America, West Indies; Religious leaders, thinkers, workers|West Indies (Antilles) and Bermuda, Cuba; Family histories|972.91922|Social Sciences|History|Social Sciences|Arts and Humanities; Social Sciences|History; Cultural Studies; Literature and Literary Theory|1202; 3316; 1208|Social Sciences; Arts & Humanities|Cultural Studies; History; Literature|None

11|Anuario del Centro de Investigaciones Jurídicas|IS:1810-4924|Social sciences|Law|Law|NA|340|Social Sciences|Comparative law, Tax law, Civil law, Law and jurisprudence|Social Sciences|Social Sciences|Law; Sociology and Political Science|3308; 3312|Social Sciences|Law|None

12|Anuario Investigaciones Culturales|IS:1729-4665|Social sciences|Social sciences, sociology & anthropology|Culture and institutions|NA|306|Arts and Humanities, Social Sciences|History, Culture|Social Sciences|Social Sciences; Arts and Humanities|Cultural Studies; History|3316; 1202|Social Sciences; Arts & Humanities|Cultural Studies; History|None

13|Anuario L/L. Estudios Lingüísticos|IS:0864-1994|Language|Spanish, Portuguese, Galician|Historical and geographic variations, modern nongeographic variations of Spanish|NA|467|Arts and Humanities|Linguistics|Social Sciences|Arts and Humanities; Social Sciences|Language and Linguistics; Linguistics and Language|1203; 3310|Arts & Humanities|Linguistics; Language & Linguistics|None

14|Anuario L/L. Estudios Literarios|IS:0864-2036|Literature|Spanish, Portuguese, Galician literatures|Literatures of Spanish, Portuguese, Galician languages|NA|860|Arts and Humanities|Literature|Social Sciences|Arts and Humanities|Literature and Literary Theory|1208|Arts & Humanities|Literature, Romance|None

15|Apiciencia|IS:1608-1862|Technology|Agriculture|Insect culture|NA|638|Agricultural Sciences|Veterinary, Zootechnics|Life Sciences|Agricultural and Biological Sciences|Insect Science; Animal Science and Zoology|1109; 1103|Life Sciences & Biomedicine|Entomology|None

16|Arcada|IS:2518-4164|Arts & recreation|Architecture|Architecture|Historic preservation in an architectural context|720.288|Engineering Sciences, Social Sciences|Town planning, Local Studies|Social Sciences|Arts and Humanities; Social Sciences|History; Urban Studies; Conservation; Cultural Studies|1202; 3322; 1206; 3316|Arts & Humanities; Social Sciences|Architecture; Cultural Studies|None

17|Archivo del Hospital Universitario “General Calixto García”|IS:1728-6115|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|General Medicine; Internal Medicine|2700; 2724|Life Sciences & Biomedicine|General & Internal Medicine|None

18|Arquitectura y Urbanismo|IS:1815-5898|Arts & recreation|Area planning & landscape architecture|Area planning (Civic art)|NA|711|Engineering Sciences|Town planning|Physical Sciences|Engineering|Architecture; Building and Construction|2216; 2215|Arts & Humanities|Architecture; Urban Studies|SciELO CI

19|Arrancada|IS:1810-5882|Arts & recreation|Sports, games & entertainment|Athletic and outdoor sports and games|Education, research, related topics|796.07|Social Sciences|Sports, Education|Social Sciences|Social Sciences|Sports science; Education|3304|Life Sciences & Biomedicine; Social Sciences|Sport Sciences; Education & Educational Research|ESCI

20|Atenas|IS:1682-2749|Social sciences|Education|Education|NA|370|Social Sciences|Education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Social Sciences - Other Topics; Education & Educational Research|ESCI

21|Avances|IS:1562-3297|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|ESCI

22|Avanzada Científica|IS:1029-3450|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

23|Bibliotecas. Anales de investigación|IS:1683-8947|Computer science, information & general works|Library & information sciences|Operation of libraries, archives, information centers|NA|025|Social Sciences|Library Science, Information Sciences|Social Sciences|Social Sciences|Library and Information Sciences|3309|Technology|Information Science & Library Science; Social Sciences, General|ESCI

24|Biotecnología Aplicada|IS:1027-2852|Technology|Chemical engineering|Chemical engineering and related technologies|Biotechnology|660.6|Exact and Natural Sciences|Biology, Biotechnology|Life Sciences|Biochemistry, Genetics and Molecular Biology; Immunology and Microbiology|Applied Microbiology and Biotechnology; Biotechnology|2402;1305|Life Sciences & Biomedicine|Biotechnology & Applied Microbiology|SciELO CI; Scopus

25|Biotecnología Vegetal|IS:2074-8647|Technology|Agriculture|Specific techniques; apparatus, equipment, materials|Cultivation and harvesting|631.5|Exact and Natural Sciences|Biotechnology, Botany|Life Sciences|Agricultural and Biological Sciences; Biochemistry, Genetics and Molecular Biology|Agronomy and Crop Science; Plant Science; Biotechnology|1102; 1110; 1305|Life Sciences & Biomedicine|Plant Sciences; Biotechnology & Applied Microbiology|SciELO CI

26|Boletín Científico Técnico INIMET|IS:2070-8505|Social sciences|Commerce, communications & transportation|Metrology and standardization|NA|389|Engineering Sciences|Technology, Industry, Instruments engineering|Physical Sciences; Social Sciences|Engineering; Physics and Astronomy; Business, Management and Accounting|Engineering (miscellaneous); Control and Systems Engineering;

Industrial and Manufacturing Engineering; Safety, Risk, Reliability and Quality; Instrumentation|2201; 2207; 2209; 2213; 3105|Technology|Instruments & Instrumentation|None

27|Boletín del Archivo Nacional|IS:1990-84580864-0769|Computer science, information & general works|Library & information sciences|Operation of libraries, archives, information centers|NA|025|Social Sciences|Library Science, Information Sciences|Social Sciences|Social Sciences; Arts and Humanities|Library and Information Sciences; Conservation; History; Museology|3309; 1206; 1202; 1209|Technology|Information Science & Library Science|None

28|Café Cacao|IS:1680-7685|Technology|Agriculture|Field and plantation crops|Alkaloidal crops|633.7|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Plant Science; Soil Science; Food Science|1102; 1110; 1111; 1106|Life Sciences & Biomedicine|Agronomy; Plant Sciences; Horticulture|None

29|Catauro|IS:1681-7842|Social sciences|Social sciences, sociology & anthropology|Culture and institutions|NA|306|Social Sciences|Social sciences and humanities, Anthropology, Ethnology, Folklore|Social Sciences|Social Sciences; Arts and Humanities|Anthropology; Cultural Studies; History|3314; 3316; 1202|Social Sciences; Arts & Humanities|Anthropology; Communication; Folklore; History|None

30|Centro Agrícola|IS:2072-2001|Technology|Agriculture|Agriculture and related technologies|NA|630|Exact and Natural Sciences|Agricultural Sciences, Agronomy|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Plant Science; Soil Science; Horticulture|1102; 1110; 1111; 1108|Life Sciences & Biomedicine|Agronomy; Agricultural Sciences|ESCI; SciELO CI

31|Centro Azúcar|IS:2223-4861|Technology|Agriculture|Field and plantation crops|Sugar, syrup, starch crops|633.6|Agricultural Sciences|Agronomy|Life Sciences; Physical Sciences; |Agricultural and Biological Sciences; Engineering; Environmental Science|Agronomy and Crop Science; Food Science; Industrial and Manufacturing Engineering; Engineering (miscellaneous); Waste Management and Disposal|1102; 1106; 2209; 2201; 2311|Life Sciences & Biomedicine|Agricultural Engineering; Agronomy|SciELO CI

32|Ciencia en su PC|IS:1027-2887|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

33|Ciencia y Actividad Física|IS:2412-3226|Arts & recreation|Sports, games & entertainment|Athletic and outdoor sports and games|Education, research, related topics|796.07|Social Sciences|Sports, Higher education|Social Sciences|Social Sciences|Sports science; Education|3304|Life Sciences & Biomedicine|Sport Sciences; Education & Educational Research|None

34|Ciencia y Tecnología de Alimentos|IS:1816-7721|Technology|Chemical engineering|Food technology|NA|664|Engineering Sciences|Food technology|Life Sciences; Physical Sciences|Agricultural and Biological Sciences; Engineering|Food Science; Industrial and Manufacturing Engineering|1106; 2209|Life Sciences & Biomedicine|Food Science & Technology; Nutrition & Dietetics|None

35|Ciencia y Tecnología Ganadera|IS:1999-4494|Technology|Agriculture|Animal husbandry|NA|636|Agricultural Sciences, Exact and Natural Sciences|Animal husbandry, Agronomy, Science and technology, Biotechnology|Life Sciences; Health Sciences|Agricultural and Biological Sciences; Veterinary|Animal Science and Zoology; Veterinary (miscellaneous); Food Animals; Agronomy and Crop Science|1103; 3401; 3403; 1102|Life Sciences & Biomedicine|Agriculture, Dairy & Animal Science|None

36|Ciencias de la información|IS:1606-4925|Computer science, information & general works|Library & information sciences|Library and information sciences|NA|020|Social Sciences|Library Science, Information Sciences|Social Sciences|Social Sciences|Library and Information Sciences|3309|Technology|Information Science & Library Science|None

37|Ciencias de la Tierra y el Espacio|IS:1729-3790|Science|Earth sciences & geology|Earth sciences|NA|550|Exact and Natural Sciences|Astronomy, Earth sciences, Geophysics|Physical Sciences|Earth and Planetary Sciences; Physics and Astronomy; Environmental Science|Earth and Planetary Sciences (miscellaneous); Astronomy and Astrophysics; Geophysics; Geotechnical Engineering and Engineering Geology; Environmental Science (miscellaneous)|1901; 3103; 1908; 1909; 2301|Physical Sciences|Geosciences, Multidisciplinary|None

38|Ciencias Holguín|IS:1027-2127|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

39|Ciencias Matemáticas|IS:0256-5374|Science|Mathematics|Mathematics|NA|510|Exact and Natural Sciences|Mathematics|Physical Sciences|Mathematics; Computer Science|Applied Mathematics; Computational Mathematics; Mathematics (miscellaneous); Computational Theory and Mathematics|2604; 2605; 2601; 1703|Physical Sciences|Mathematics, Applied|None

40|Ciencias Pedagógicas|IS:1605-5888|Social sciences|Education|Education|NA|370|Social Sciences|Education, Pedagogy|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

41|Citrifruta|IS::2224-6479|Technology|Agriculture|Orchards, fruits, forestry|NA|634|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Plant Science; Horticulture|1102; 1110; 1108|Life Sciences & Biomedicine|Agronomy; Plant Sciences; Horticulture|None

42|Clave|IS:1992-8637|Arts & recreation|Music|Music|NA|780|Arts and Humanities|Music|Social Sciences|Arts and Humanities|Music; History; Visual Arts and Performing Arts|1210; 1202; 1213|Arts & Humanities|Music|None

43|COFIN Habana|IS:2073-6061|Technology; Social sciences|Management & public relations; Economics|Accounting; Financial economics|NA|657; 332|Social Sciences|Finance, Accounting|Social Sciences|Business, Management and Accounting|Accounting; General Economics, Econometrics and Finance|1402; 2000|Social Sciences|Business & Economics|SciELO CI

- 44|Congreso Universidad|IS:2306-918X|Social sciences|Education|Higher education (Tertiary education)|NA|378|Social Sciences|Higher education, Pedagogy, Psychology|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None
- 45|Conrado|IS:1990-8644|Social sciences|Education|Education|NA|370|Social Sciences|Education, Preschool education, Higher education, Pedagogy, Psychology|Social Sciences|Social Sciences|Education|3304|Social Sciences|Social Sciences, General; Education & Educational Research|ESCI; SciELO CI
- 46|Correo Científico Médico|IS:1560-4381|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine, Nursing, Public Health|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2739; 2701|Life Sciences & Biomedicine|Health Care Sciences & Services|SciELO CI
- 47|Corsalud|IS:2078-7170|Technology|Medicine & health|Diseases|Diseases of cardiovascular system|616.1|Medical Sciences|Cardiology, Public health|Health Sciences|Medicine|Cardiology and Cardiovascular Medicine|2705|Life Sciences & Biomedicine|Cardiac & Cardiovascular Systems|ESCI; SciELO CI
- 48|Cuba Tabaco|IS:2305-3771|Technology|Agriculture|Field and plantation crops|Alkaloidal crops|633.7|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences|Plant Science; Agronomy and Crop Science|1110; 1102|Life Sciences & Biomedicine|Agronomy; Plant Sciences|None
- 49|Cuba: Investigación Económica|IS:1026-485X|Social sciences|Economics|Economics|NA|330|Social Sciences|Econometrics, Economics|Social Sciences|Economics, Econometrics and Finance|Economics and Econometrics|2002|Social Sciences|Economics|None
- 50|Cubaenvases|IS:1026-0498|Technology|Manufacture for specific uses|Other final products, and packaging technology|Packaging technology|688.8|Engineering Sciences|Materials engineering, Industry|Physical Sciences|Engineering; Materials Science|Industrial and Manufacturing Engineering; Materials Science (miscellaneous); Mechanical Engineering|2209; 2501; 2210|Technology|Engineering, Manufacturing|None
- 51|Cubazoo|IS:1560-215X|Science|Animals (Zoology)|Animals|Education, research, related topics, Collections and exhibits of living mammals|590.73|Exact and Natural Sciences|Zoology|Life Sciences; Health Sciences|Agricultural and Biological Sciences; Veterinary|Animal Science and Zoology; Ecology, Evolution, Behavior and Systematics; Veterinary (miscellaneous)|1103; 1105; 3401|Life Sciences & Biomedicine|Zoology; Veterinary|None
- 52|Cultivos Tropicales|IS:1819-4087|Technology|Agriculture|Field and plantation crops|NA|633|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Plant Science; Horticulture|1102; 1110; 1108|Life Sciences & Biomedicine|Agricultural Engineering; Agronomy|SciELO CI
- 53|Cultura Física y Deportes de Guantánamo|IS:2519-9455|Arts & recreation|Sports, games & entertainment|Athletic and outdoor sports and games|Education, research, related topics|796.07|Social Sciences|Sports, Education|Social Sciences|Social Sciences|Sports science; Education|3304|Life Sciences & Biomedicine; Social Sciences|Sport Sciences; Education & Educational Research|None

54|Deporvida|IS:1819-4028|Arts & recreation|Sports, games & entertainment|Athletic and outdoor sports and games|Education, research, related topics|796.07|Social Sciences|Sports, Education|Social Sciences|Social Sciences|Sports science; Education|3304|Life Sciences & Biomedicine; Social Sciences|Sport Sciences; Education & Educational Research|None

55|Economía y Desarrollo|IS:2518-0983|Social sciences|Economics|Economics|NA|330|Social Sciences|Economics, Economic development|Social Sciences|Economics, Econometrics and Finance; Social Sciences; Business, Management and Accounting|General Economics, Econometrics and Finance; Development; Business and International Management|2000; 3303; 1403|Social Sciences|Business & Economics|SciELO CI

56|Ecovida|IS:2076-281X|Science|Biology|Ecology|NA|577|Exact and Natural Sciences|Non-renewable natural resources, Ecology|Physical Sciences|Environmental Science|Ecology; Ecology, Evolution, Behavior and Systematics; Nature and Landscape Conservation; Management, Monitoring, Policy and Law|2303; 1105; 2309; 2308|Life Sciences & Biomedicine|Environmental Sciences & Ecology|None

57|Educación Médica Superior|IS:1561-2902|Technology|Medicine & health|Medicine and health|Education, research, related topics|610.71|Social Sciences, Medical Sciences|Education, Higher Education, Medicine|Social Sciences; Health Sciences|Social Sciences; Medicine|Education; Medicine (miscellaneous)|3304; 2701|Life Sciences & Biomedicine; Social Sciences|Health Care Sciences & Services; Education & Educational Research|SciELO CI; Scopus

58|Educación y Sociedad|IS:1811-9034|Social sciences|Education|Education|NA|370|Social Sciences|Education, Secondary education, Preschool education, Primary education, Higher education, Pedagogy, Education technology|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

59|Edumecentro|IS:2077-2874|Technology|Medicine & health|Medicine and health|Education, research, related topics|610.71|Medical Sciences|Public health|Social Sciences; Health Sciences|Social Sciences; Medicine; Arts and Humanities|Education; Medicine (miscellaneous)|3304; 2701|Life Sciences & Biomedicine|Health Care Sciences & Services; Education & Educational Research|SciELO CI

60|EduSol|IS:1729-8091|Social sciences|Education|Education|NA|370|Social Sciences|Pedagogy, Education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

61|Ekotemas|IS:2414-4681|Technology|Management & public relations|Accounting|NA|657|Social Sciences|Economics, Accounting|Social Sciences|Economics, Econometrics and Finance; Business, Management and Accounting|Economics, Econometrics and Finance (miscellaneous); Business, Management and Accounting (miscellaneous)|2001; 1401|Social Sciences|Economics< Business, Finance|None

62|Estrategia y Gestión Universitaria|IS:2309-8333|Social sciences|Education|Higher education (Tertiary education)|Organization and activities in higher education|378.1|Social Sciences|Social Sciences and humanities, Education, Educational planning, Education technology|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

63|Estudio|IS:1684-6842|Social sciences|Social sciences, sociology & anthropology|Groups of people|Age groups; Young people twelve to twenty|305.235|Social Sciences|Sociology|Social Sciences|Psychology;

Social Sciences|Developmental and Educational Psychology; Social Psychology; Sociology and Political Science; Life-span and Life-course Studies; Education; Social Sciences (miscellaneous)|3204; 3207; 3312; 3319; 3304; 3301|Social Sciences|Social Sciences, Interdisciplinary; Psychology, Development|None

64|Estudios del Desarrollo Social: Cuba y América Latina|IS:2308-0132|Social sciences|Social sciences, sociology & anthropology|Social processes|NA|303|Social Sciences, Arts and Humanities|Education, Latin American Studies, Local studies, International relations, Sociology, Culture|Social Sciences|Social Sciences|Development; Geography, Planning and Development; Social Sciences (miscellaneous); Sociology and Political Science|3303; 3305; 3312; 3301|Social Sciences|Social Sciences, General; Area Studies |ESCI; SciELO CI

65|Finlay|IS:2221-2434|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Nursing, Medicine, Pediatrics, Public health|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2739; 2701|Life Sciences & Biomedicine|Public, Environmental & Occupational Health; General & Internal Medicine|ESCI; SciELO CI

66|Fitosanidad|IS:1818-1686|Technology|Agriculture|Plant injuries, diseases, pests|NA|632|Agricultural Sciences|Agronomy|Life Sciences; Physical Sciences|Agricultural and Biological Sciences; Environmental Science|Plant Science; Agronomy and Crop Science; Insect Science; Ecology; Management, Monitoring, Policy and Law|1110; 1102; 1109; 2303; 2308|Life Sciences & Biomedicine|Agricultural Engineering; Agronomy; Entomology; Environmental Science|None

67|Folia Dermatológica Cubana|IS:2070-2957|Technology|Medicine & health|Diseases|Diseases of integument|610.5|Medical Sciences|Dermatology, Medicine, Public health, Oncology|Health Sciences|Medicine|Dermatology; Medicine (miscellaneous); Infectious Diseases; Immunology and Allergy; Oncology|2708; 2701; 2725; 2723; 2730|Life Sciences & Biomedicine|Dermatology|None

68|Folletos Gerenciales|IS:1817-1788|Technology|Management & public relations|General management|NA|658|Social Sciences|Management|Social Sciences|Business, Management and Accounting; Social Sciences|Strategy and Management; Business, Management and Accounting (miscellaneous); Organizational Behavior and Human Resource Management; Geography, Planning and Development; Marketing|1408; 1401; 1407; 1406; 3305|Social Sciences|Management; Business, Finance|None

69|Gaceta Médica Espirituana|IS:1608-8921|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Nursing, Medicine, Public health|Health Sciences; Social Sciences|Medicine; Social Sciences|Public Health, Environmental and Occupational Health; Medicine (miscellaneous); Education|2739; 2701; 3304|Life Sciences & Biomedicine|Health Care Sciences & Services|SciELO CI

70|Granma Ciencia|IS:1027-975X|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

71|Hombre, Ciencia y Tecnología|IS:1028-0871|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600;

300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

72|Horizontes y Raíces|IS:2311-2034|Social sciences |Social sciences, sociology & anthropology|Social sciences|NA|300|Social Sciences|Social sciences and humanities, History, Sociology|Social Sciences|Arts and Humanities; Social Sciences|History; Anthropology; Cultural Studies; Sociology and Political Science|1202; 3314; 3316; 3312|Social Sciences|Sociology; Cultural Sciences; Political Science|None

73|Humanidades Médicas |IS:1727-8120|Technology; Social sciences; Philosophy & psychology|Medicine & health; Social sciences, sociology & anthropology|NA|NA|362.1; 362.2; 174.2|Medical Sciences|Medicine, Humanities|Health Sciences; Social Sciences|Medicine; Arts and Humanities|Health (social science); Health Policy; History and Philosophy of Science|3306; 2719; 1207|Arts & Humanities; Life Sciences & Biomedicine|History & Philosophy Of Science; Health Care Sciences & Services|SciELO CI

74|ICIDCA. Sobre los derivados de la Caña de Azúcar|IS:1025-3076|Technology|Agriculture|Field and plantation crops|Sugar, syrup, starch crops|633.6|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Food Science|1102; 1106|Life Sciences & Biomedicine|Agronomy; Food Science & Technology|None

75|Infociencia|IS:1029-5186|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

76|Infodir|IS:1996-3521|Technology|Medicine & health|Medicine and health|Organizations, management; medical personnel and relationships|610.6|Social Sciences, Medical Sciences|Medicine, Management|Health Sciences; Social Sciences|Business, Management and Accounting; Medicine|Business, Management and Accounting (miscellaneous); Health Policy|1401; 2719|Social Sciences|Management; Business, Finance|None

77|Infomin|IS:1992-4194|Technology|Engineering|Mining and related operations|NA|622|Engineering Sciences|Metallurgy, Mining engineering|Physical Sciences|Earth and Planetary Sciences|Geotechnical Engineering and Engineering Geology; Geochemistry and Petrology; Geology; Industrial and Manufacturing Engineering|1909; 1906; 1907; 2209|Physical Sciences|Geology; Mineralogy; Mining & Mineral Processing|None

78|Ingeniería Electrónica, Automática y Comunicaciones|IS:1815-5928|Technology|Engineering|Applied Physics|Electronics, communications engineering|621.38|Engineering Sciences|Engineering, Communications, electronics and control engineering|Physical Sciences|Engineering; Computer Science|Electrical and Electronic Engineering; Control and Systems Engineering; Media Technology; Signal Processing; Computer Networks and Communications|2208; 2207; 2214; 1711; 1705|Physical Sciences|Automation & Control Systems; Computer Science; Engineering; Science & Technology - Other Topics; Robotics; Telecommunications|SciELO CI

79|Ingeniería Energética|IS:1815-5901|Technology|Engineering|Applied physics|NA|621|Engineering Sciences|Electrical engineering, Energy, Engineering|Physical Sciences|Energy; Engineering|Energy Engineering and Power Technology; Electrical and Electronic Engineering; Renewable Energy,

Sustainability and the Environment|2102; 2208; 2105|Physical Sciences|Engineering, Civil; Energy & Fuels; Engineering, Electrical & Electronic |SciELO CI

80|Ingeniería Hidráulica y Ambiental|IS:1815-591X|Technology|Engineering|Hydraulic engineering; Sanitary engineering|NA|627; 628|Engineering Sciences|Hydraulic engineering, Civil engineering|Physical Sciences; Social Sciences|Engineering; Environmental Science|Civil and Structural Engineering; Mechanical Engineering; Water Science and Technology; Environmental Engineering; Pollution; Waste Management and Disposal|2205; 2210; 2312; 2305; 2310; 2311|Physical Sciences|Engineering; Engineering, Environmental|SciELO CI

81|Ingeniería Industrial|IS:1815-5936|Technology|Engineering|Engineering and allied operations|NA|620|Engineering Sciences|Industrial engineering|Physical Sciences|Engineering; Business, Management and Accounting|Industrial and Manufacturing Engineering; Business, Management and Accounting (miscellaneous)|2209; 1401|Physical Sciences|Engineering, Industrial|SciELO CI

82|Ingeniería Mecánica|IS:1815-5944|Technology|Engineering|Applied Physics|NA|621|Engineering Sciences|Mechanical engineering|Physical Sciences|Engineering|Mechanical Engineering; Mechanics of Materials; Automotive Engineering|2210; 2211; 2203|Social Sciences|Engineering, Mechanical|SciELO CI

83|Innovación Tecnológica|IS:1025-6504|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

84|Investigación Operacional|IS:2224-5405|Science|Mathematics|Probabilities and applied mathematics|NA|519|Exact and Natural Sciences|Mathematics, Computing|Physical Sciences|Mathematics; Computer Science|Applied Mathematics; Numerical Analysis; Statistics and Probability|2604; 2612; 2613|Physical Sciences|Mathematics, Applied|Scopus

85|Investigaciones Médicoquirúrgicas|IS:1995-9427|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine, Surgery|Health Sciences|Medicine|Medicine (miscellaneous); Public Health, Environmental and Occupational Health|2701; 2739|Life Sciences & Biomedicine|General & Internal Medicine; Surgery|None

86|Isla, Ciencia y Tecnología|IS:1813-6141|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

87|Islas|IS:1997-6720|Social sciences|Social sciences, sociology & anthropology|Culture and institutions|NA|306|Social Sciences|Social sciences and humanities, Culture|Social Sciences|Social Sciences; Arts and Humanities|Cultural Studies; History|3316; 1202|Social Sciences; Arts & Humanities|Cultural Studies; History|None

88|Luz|IS:1814-151X|Social sciences|Education|Higher education (Tertiary education)|Organization and activities in higher education|378.1|Social Sciences|Education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Social Sciences, General; Education & Educational Research|ESCI

89|Maestro y Sociedad|IS:1815-4867|Social sciences|Education|Education|NA|370|Social Sciences|Education, Pedagogy, Psychology, Sociology|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research; Social Sciences - Other Topics|None

90|Medicentro Electrónica|IS:1029-3043|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2739; 2701|Life Sciences & Biomedicine|Public, Environmental & Occupational Health; General & Internal Medicine|SciELO CI

91|Mediciego|IS:1029-3035|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Nursing, Medicine, Public health|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2739; 2701|Life Sciences & Biomedicine|Public, Environmental & Occupational Health; General & Internal Medicine|None

92|Medimay|IS:2520-9078|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2739; 2701|Life Sciences & Biomedicine|Public, Environmental & Occupational Health; General & Internal Medicine|None

93|Medisan|IS:1029-3019|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2739; 2701|Life Sciences & Biomedicine|Public, Environmental & Occupational Health; General & Internal Medicine|SciELO CI

94|Medisur|IS:1727-897X|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Medicine (miscellaneous); Public Health, Environmental and Occupational Health|2701; 2739 |Life Sciences & Biomedicine|Medicine, General & Internal |ESCI; SciELO CI

95|Memorias de GEOINFO|IS:1028-8961|Science|Earth sciences & geology|Geology, hydrology, meteorology|NA|551|Exact and Natural Sciences|Geophysics, Mathematics, Geography, Geodesy|Physical Sciences|Earth and Planetary Sciences|Geology; Geochemistry and Petrology; Geophysics; Stratigraphy; Earth and Planetary Sciences (miscellaneous)|1907; 1906; 1908; 1913; 1901 |Physical Sciences|Geosciences, Multidisciplinary; Geography, Physical|None

96|Mendive|IS:1815-7696|Social sciences|Education|Education|NA|370|Social Sciences|Education, Secondary education, Preschool education, Primary education, Higher education, Pedagogy|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|SciELO CI

97|Minería y Geología|IS:1993-8012|Technology|Engineering|Mining and related operations|NA|622|Engineering Sciences|Mining engineering, Geology|Physical Sciences|Earth and Planetary Sciences; Materials Science|Geotechnical Engineering and Engineering Geology; Geology; Geochemistry and Petrology; Metals and Alloys; Environmental Science (miscellaneous)|1909; 1907; 1906; 2506; 2301|Physical Sciences|Geology; Mineralogy; Mining & Mineral Processing|SciELO CI

98|Multimed|IS:1028-4818|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Public Health, Environmental and Occupational Health;

Medicine (miscellaneous)|2739; 2701|Life Sciences & Biomedicine|Public, Environmental & Occupational Health; General & Internal Medicine|SciELO CI

99|Mundi Migratios|IS:2409-0018|Social sciences|Political science|International migration and colonization|NA|325|Social Sciences|Demographics|Social Sciences|Social Sciences|Demography; Geography, Planning and Development; Sociology and Political Science; Law|3317; 3305; 3312; 3308|Social Sciences|Demography; Political Science|None

100|Normalización|IS:2223-179X|Technology|Management & public relations|General management|Management of production|658.5|Social Sciences, Engineering Sciences|Management, Industry|Physical Sciences; Social Sciences|Engineering; Physics and Astronomy; Business, Management and Accounting|Industrial and Manufacturing Engineering; Safety, Risk, Reliability and Quality; Instrumentation; Management of Technology and Innovation|2209; 2213; 3105; 1405|Technology|Instruments & Instrumentation|None

101|Novedades en Población|IS:1817-4078|Social sciences|Social sciences, sociology & anthropology|Factors affecting social behavior|Population|304.6|Social Sciences|Demographics, Local studies, Town planning|Social Sciences; Physical Sciences|Social Sciences; Environmental Science|Demography; Geography, Planning and Development; Management, Monitoring, Policy and Law|3317; 3305; 2308|Social Sciences|Demography|ESCI; SciELO CI

102|Nucleus|IS:2075-5635|Science|Physics|Modern physics|Atomic and nuclear physics|539.7|Engineering Sciences|Nuclear engineering|Physical Sciences|Energy; Engineering; Environmental Science|Nuclear Energy and Engineering; Safety, Risk, Reliability and Quality; Waste Management and Disposal|2104; 2213; 2311|Technology|Engineering; Nuclear Science & Technology|SciELO CI

103|Olimpia|IS:1817-9088|Arts & recreation|Sports, games & entertainment|Athletic and outdoor sports and games|Education, research, related topics|796.07|Social Sciences|Sports, Education|Social Sciences|Social Sciences|Sports science; Education|3304|Life Sciences & Biomedicine; Social Sciences|Sport Sciences; Education & Educational Research|None

104|Órbita Científica|IS:1027-4472|Social sciences|Education|Higher education (Tertiary education)|NA|378|Social Sciences|Education, Pedagogy, Higher education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

105|Panorama. Cuba y Salud|IS:1991-2684|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine, Public health|Health Sciences; Social Sciences|Medicine; Social Sciences|Medicine (miscellaneous); Public Health, Environmental and Occupational Health; Health (social science); Education|2701; 2739; 3306; 3304|Life Sciences & Biomedicine|Health Care Sciences & Services; Public, Environmental & Occupational Health; Education & Educational Research|None

106|Pastos y Forrajes|IS:2078-8452|Technology|Agriculture|Field and plantation crops|Forage crops; Legumes, forage crops other than grasses and legumes|633.2, 633.3|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Plant Science; Soil Science; Ecology, Evolution, Behavior and Systematics|1102; 1110; 1111; 1105|Life Sciences & Biomedicine|Agriculture|SciELO CI

107|Pedagogía Profesional|IS:1684-5765|Social sciences|Education|Higher education (Tertiary education)|Organization and activities in higher education|378.1|Social Sciences|Education, Pedagogy, Higher education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

108|Pedagogía Universitaria|IS:1609-4808|Social sciences|Education|Higher education (Tertiary education)|NA|378|Social Sciences|Education, Pedagogy, Higher education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

109|Pedagogía y Sociedad|IS:1608-3784|Social sciences|Education|Higher education (Tertiary education)|Organization and activities in higher education|378.1|Social Sciences|Education, Pedagogy, Higher education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

110|Podium|IS:1996-2452|Arts & recreation|Sports, games & entertainment|Athletic and outdoor sports and games|Education, research, related topics|796.07|Social Sciences|Sports, Education|Social Sciences|Social Sciences|Sports science; Education|3304|Life Sciences & Biomedicine; Social Sciences|Sport Sciences; Education & Educational Research|SciELO CI

111|Referencia Pedagógica|IS:2308-3042|Social sciences|Education|Higher education (Tertiary education)|NA|378|Social Sciences|Education, Pedagogy, Higher education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

112|Retos de la Dirección|IS:2306-9155|Technology|Management & public relations|General management|NA|658|Social Sciences|Management, Economics, Enterprise economics|Social Sciences|Business, Management and Accounting; Social Sciences|Strategy and Management; Business, Management and Accounting (miscellaneous); Organizational Behavior and Human Resource Management; Geography, Planning and Development|1408; 1401; 1407; 3305|Social Sciences|Business & Economics|SciELO CI

113|Retos Turísticos|IS:2224-7947|Social sciences|Economics|Production|Secondary industries and services|338.4|Social Sciences|Tourism|Social Sciences|Business, Management and Accounting|Tourism, Leisure and Hospitality Management; Management, Monitoring, Policy and Law|1409; 2308|Social Sciences|Hospitality, Leisure, Sport & Tourism; Environmental Studies; Management|None

114|Revista Archivo Médico de Camagüey|IS:1025-0255|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Medicine (miscellaneous)|2701|Life Sciences & Biomedicine|General & Internal Medicine|SciELO CI

115|Revista CENIC. Ciencias Biológicas|IS:2221-2450|Science|Biology|Biochemistry|NA|572|Exact and Natural Sciences|Biology, Biochemistry|Life Sciences|Biochemistry, Genetics and Molecular Biology; Immunology and Microbiology; Pharmacology, Toxicology and Pharmaceutics|Biochemistry, Genetics and Molecular Biology (miscellaneous); Biotechnology; Microbiology; Pharmacology, Toxicology and Pharmaceutics (miscellaneous)|1301; 1305; 2404; 3001|Life Sciences & Biomedicine|Biochemistry & Molecular Biology; Biotechnology & Applied Microbiology; Pharmacology & Pharmacy|None

116|Revista CENIC. Ciencias Químicas|IS:2221-2442|Science|Chemistry|Chemistry and allied sciences|NA|540|Exact and Natural Sciences|Chemistry|Physical Sciences|Chemistry|Chemistry (miscellaneous)|1601|Physical Sciences|Chemistry, Multidisciplinary|None

117|Revista Ciencias Técnicas Agropecuarias|IS:2071-0054|Technology|Agriculture|Agriculture and related technologies|NA|630|Agricultural Sciences, Engineering Sciences|Agronomy, Technology|Physical Sciences; Life Sciences|Engineering; Agricultural and Biological Sciences|Mechanical Engineering; Agronomy and Crop Science; Soil Science; Industrial and Manufacturing Engineering; Energy (miscellaneous)|2210; 1102; 1111; 2209; 2101|Technology|Agricultural Engineering|SciELO CI

118|Revista Científica Agroecosistemas|IS:2415-2862|Technology|Agriculture|Agriculture and related technologies|NA|630|Agricultural Sciences, Exact and Natural Sciences|Agronomy, Ecology|Life Sciences; Physical Sciences|Agricultural and Biological Sciences; Environmental Science|Agricultural and Biological Sciences (miscellaneous); Ecology, Evolution, Behavior and Systematics; Ecology; Nature and Landscape Conservation|1101; 1105; 2303; 2309|Technology; Life Sciences & Biomedicine|Agricultural Engineering; Agronomy; Ecology; Forestry|None

119|Revista Computadorizada de Producción Porcina|IS:1026-9053|Technology|Agriculture|Animal husbandry|Swine|636.4|Agricultural Sciences|Animal husbandry|Life Sciences; Health Sciences|Agricultural and Biological Sciences; Veterinary; Biochemistry, Genetics and Molecular Biology|Animal Science and Zoology; Food Animals; Food Science; Veterinary (miscellaneous); Genetics|1103; 3403; 1106; 3401; 1311|Life Sciences & Biomedicine|Agriculture, Dairy & Animal Science|None

120|Revista Cooperativismo Y Desarrollo-Coodes|IS:2310-340X|Social Sciences|Economics|Cooperatives|NA|334|Social Sciences|Economic development, Economics|Social Sciences|Economics, Econometrics and Finance|Economics and Econometrics; Geography, Planning and Development; Sociology and Political Science|2002; 3305; 3312|Social Sciences|Economics & Business; Development Studies|ESCI; SciELO CI

121|Revista Cuba & Caña|IS:1028-6527|Technology|Agriculture|Agriculture and related technologies|NA|630|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences; Engineering|Agronomy and Crop Science; Soil Science; Plant Science|1102; 1111; 1110|Life Sciences & Biomedicine|Agronomy; Food Science & Technology|None

122|Revista Cubana de Alimentación y Nutrición|IS:1561-2929|Technology|Medicine & health|Personal health and safety|Dietetics|613.2|Medical Sciences|Medicine, Endocrinology and nutrition|Health Sciences; Life Sciences|Nursing; Medicine; Agricultural and Biological Sciences |Nutrition and Dietetics; Medicine (miscellaneous); Food Science|2916; 2701; 1106|Life Sciences & Biomedicine|Nutrition & Dietetics|None

123|Revista Cubana de Anestesiología y Reanimación|IS:1726-6718|Technology|Medicine & health|Surgery, regional medicine, dentistry, ophthalmology, otology, audiology|Operative surgery and special fields of surgery|617.9|Medical Sciences|Anesthesiology, Surgery|Health Sciences; Life Sciences|Medicine; Nursing|Anesthesiology and Pain Medicine; Emergency Medicine; Emergency Nursing|2703; 2711; 2907|Life Sciences & Biomedicine|Anesthesiology|SciELO CI

124|Revista Cubana de Angiología y Cirugía Vascular|IS:1682-0037|Technology|Medicine & health|Diseases|Diseases of cardiovascular system|616.1|Medical Sciences|Cardiology, Surgery, Medicine|Health Sciences|Medicine; Health Professions|Cardiology and Cardiovascular Medicine;

Surgery; Medicine (miscellaneous)|2705; 2746; 2701|Life Sciences & Biomedicine|Peripheral Vascular Diseases; Cardiovascular System & Cardiology; Surgery|SciELO CI

125|Revista Cubana de Cardiología y Cirugía Cardiovascular|IS:1561-2937|Technology|Medicine & health|Diseases|Diseases of cardiovascular system|616.1|Medical Sciences|Cardiology, Surgery, Medicine|Health Sciences|Medicine|Cardiology and Cardiovascular Medicine; Surgery; Medicine (miscellaneous); Physiology (medical)|2705; 2746; 2701; 2737|Life Sciences & Biomedicine|Cardiovascular System & Cardiology; Surgery|None

126|Revista Cubana de Ciencia Agrícola (English edition)|IS:2079-3480|Technology|Agriculture|Agriculture and related technologies|NA|630|Agricultural Sciences|Agronomy, Animal science|Life Sciences|Agricultural and Biological Sciences|Animal Science and Zoology; Agricultural and Biological Sciences (miscellaneous)|1103; 1101|Life Sciences & Biomedicine|Agriculture, Dairy & Animal Science|SciELO CI; Scopus

127|Revista Cubana de Ciencia Avícola|IS:2223-9928|Technology|Agriculture|Animal husbandry|Chickens and other kinds of domestic birds|636.5|Agricultural Sciences|Zootechnics, Poultry|Life Sciences|Agricultural and Biological Sciences; Veterinary|Animal Science and Zoology; Food Animals|1103; 1105|Life Sciences & Biomedicine|Agriculture, Dairy & Animal Science|None

128|Revista Cubana de Ciencias Biológicas|IS:2307-695X|Science|Biology|Biology|NA|570|Exact and Natural Sciences|Biophysics, Biology, Biochemistry, Ecology, Zoology, Microbiology, Biotechnology|Life Sciences|Biochemistry, Genetics and Molecular Biology; Agricultural and Biological Sciences; Immunology and Microbiology|Ecology, Evolution, Behavior and Systematics; Animal Science and Zoology; Biochemistry, Genetics and Molecular Biology (miscellaneous); Applied Microbiology and Biotechnology|1105; 1103; 1301; 2401|Life Sciences & Biomedicine|Evolutionary Biology; Zoology; Biochemistry & Molecular Biology; Biotechnology & Applied Microbiology|None

129|Revista Cubana de Ciencias Forestales|IS:2310-3469|Social Sciences|Economics|Economics of land and energy|Land, recreational and wilderness areas, energy; Forest lands|333.75|Agricultural Sciences|Agronomy, Silviculture|Life Sciences; Physical Sciences|Agricultural and Biological Sciences; Environmental Science|Forestry; Plant Science; Ecology|1107; 1110; |Life Sciences & Biomedicine|Forestry|ESCI; SciELO CI

130|Revista Cubana de Ciencias Informáticas|IS:2227-1899|Computer science, information & general works|Computer science, knowledge & systems|Computer science|NA|004|Exact and Natural Sciences|Computing|Physical Sciences|Computer Science|Computer Science (miscellaneous); Software; Computer Science Applications; Information Systems; Computer Vision and Pattern Recognition|1701; 1706; 1712; 1710; 1707|Technology|Computer Science|SciELO CI

131|Revista Cubana de Ciencias Sociales|IS:0138-6425|Social Sciences|Social sciences, sociology & anthropology|Social sciences|NA|300|Social Sciences|Social Sciences and humanities|Social Sciences|Social Sciences|Social Sciences (miscellaneous)|3301|Social Sciences|Social Sciences, Interdisciplinary|None

132|Revista Cubana de Cirugía|IS:1561-2945|Technology|Medicine & health|Surgery, regional medicine, dentistry, ophthalmology, otology, audiology|NA|617|Medical Sciences|Surgery|Health Sciences|Medicine|Surgery|2746|Life Sciences & Biomedicine|Surgery|SciELO CI; Scopus

133|Revista Cubana de Economía Internacional|IS:2408-9893|Social Sciences|Economics|International economics|NA|337|Social Sciences|Economics, International economics, Finance|Social Sciences|Business, Management and Accounting; Economics, Econometrics and Finance|Business and International Management; General Economics, Econometrics and Finance|1403; 2000|Social Sciences|Economics; International Relations|None

134|Revista Cubana de Educación Superior|IS:0257-4314|Social sciences|Education|Higher education (Tertiary education)|Organization and activities in higher education|378.1|Social Sciences|Education, Higher education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|SciELO CI

135|Revista Cubana de Endocrinología|IS:1561-2953|Technology|Medicine & health|Diseases|Diseases of digestive system|616.4|Medical Sciences|Endocrinology and nutriology, Medicine|Health Sciences; Life Sciences|Medicine; Neuroscience; Biochemistry, Genetics and Molecular Biology|Endocrinology, Diabetes and Metabolism; Endocrine and Autonomic Systems; Endocrinology|2712; 2807; 1310|Life Sciences & Biomedicine|Endocrinology & Metabolism|SciELO CI

136|Revista Cubana de Enfermería|IS:1561-2961|Technology|Medicine & health|Education, research, nursing, services of allied health personnel|Nursing and work of allied health personnel as a profession, occupation, hobby|610.73|Medical Sciences|Nursing, Medicine|Health Sciences|Nursing|Nursing (miscellaneous) |2901|Life Sciences & Biomedicine|Nursing|SciELO CI; Scopus

137|Revista Cubana de Estomatología|IS:1561-297X|Technology|Medicine & health|Surgery, regional medicine, dentistry, ophthalmology, otology, audiology|Dentistry|617.6|Medical Sciences|Odontology|Health Sciences|Dentistry|Dentistry (miscellaneous)|3500|Life Sciences & Biomedicine|Dentistry, Oral Surgery & Medicine|SciELO CI; Scopus

138|Revista Cubana de Farmacia|IS:1561-2988|Technology|Medicine & health|Pharmacology and therapeutics|NA|615|Medical Sciences|Pharmacy|Life Sciences; Health Sciences|Pharmacology, Toxicology and Pharmaceutics, Health Professions|Pharmaceutical Science; Pharmacology; Pharmacy|3003; 3004; 3611;|Life Sciences & Biomedicine|Pharmacology & Pharmacy|SciELO CI; Scopus

139|Revista Cubana de Filosofía|IS:1817-0137|Philosophy & psychology|Modern western philosophy|Modern western and other noneastern philosophy|NA|199|Arts and Humanities, Social Sciences|Philosophy, Social Sciences and humanities|Social Sciences|Arts and Humanities|Philosophy; Sociology and Political Science; Political Science and International Relations|1211; 3312; 3320|Arts & Humanities|Philosophy; Sociology; Political Science|None

140|Revista Cubana de Física|IS:2224-7939|Science|Physics|Physics|NA|530|Exact and Natural Sciences|Physics|Physical Sciences|Physics and Astronomy|Physics and Astronomy (miscellaneous)|3101|Physical Sciences|Physics|ESCI; Scopus

141|Revista Cubana de Genética Comunitaria|IS:2070-8718|Technology|Medicine & health|Gynecology, obstetrics, pediatrics, geriatrics|NA|618|Medical Sciences|Genetics|Health Sciences; Life Sciences|Medicine; Biochemistry, Genetics and Molecular Biology|Genetics(clinical); Reproductive Medicine; Molecular Medicine|2716; 2743; 1313|Life Sciences & Biomedicine|Genetics & Heredity; Medicine, Research & Experimental; Obstetrics & Gynecology|None

142|Revista Cubana de Hematología, Inmunología y Hemoterapia|IS:1561-2996|Technology|Medicine & health|Diseases|Diseases of endocrine, hematopoietic, lymphatic, glandular systems; diseases of male breast|616.4|Medical Sciences|Immunology, Medicine|Medicine; Life Sciences|Medicine; Immunology and Microbiology|Hematology; Immunology; Immunology and Allergy|2720; 2403; 2723|Life Sciences & Biomedicine|Hematology; Immunology|SciELO CI; Scopus

143|Revista Cubana de Higiene y Epidemiología|IS:1561-3003|Technology|Medicine & health|Forensic medicine; incidence of injuries, wounds, disease; public preventive medicine|Incidence of and public measures to prevent disease|614.4|Medical Sciences|Epidemiology, Medicine|Medicine|Public Health, Environmental and Occupational Health; Epidemiology|2739; 2713|Life Sciences & Biomedicine|Public, Environmental & Occupational Health|SciELO CI; Scopus

144|Revista Cubana de Información en Ciencias de la Salud|IS:2307-2113|Computer science, information & general works|Library & information sciences|Operations of libraries, archives, information centers|Information storage and retrieval systems devoted to specific subjects|025.06|Social Sciences, Medical Sciences|Information Sciences, Medicine|Health Sciences|Medicine, Social Sciences, Health Professions|Health Information Management; Health Policy; Library and Information Sciences|3605; 2719; 3309|Life Sciences & Biomedicine|Medical Informatics|SciELO CI; Scopus

145|Revista Cubana de Informática Médica|IS:1684-1859|Technology|Medicine & health|Medicine and health|Computer applications|610.0285|Exact and Natural Sciences, Medical Sciences|Computing, Medicine|Health Sciences|Medicine; Health Professions; Computer Science|Health Informatics; Health Information Management; Nursing (miscellaneous); Computer Science Applications|2718; 3605; 2901; 1706|Life Sciences & Biomedicine|Medical Informatics|SciELO CI

146|Revista Cubana de Ingeniería|IS:2223-1781|Technology|Engineering|Engineering and allied operations|NA|620|Engineering Sciences|Civil engineering, Transport engineering, Electrical engineering, Hydraulic engineering, Industrial engineering, Mechanical engineering|Physical Sciences|Engineering; Materials Science|Engineering (miscellaneous); Industrial and Manufacturing Engineering; Materials Science (miscellaneous)|2201; 2209; 2501|Technology|Engineering, Multidisciplinary; Engineering|ESCI

147|Revista Cubana de Investigaciones Biomédicas|IS:1561-3011|Technology|Medicine & health|Medicine and health|Education, research, nursing, services of allied health personnel; Research|610.72|Medical Sciences|Medicine, Physiology, Biochemistry, Molecular Biology|Health Sciences; Life Sciences|Medicine; Biochemistry, Genetics and Molecular Biology|Biochemistry (medical); Medicine (miscellaneous); Clinical Biochemistry|2704; 2701; 1308|Life Sciences & Biomedicine|Research & Experimental Medicine|SciELO CI; Scopus

148|Revista Cubana de Investigaciones Pesqueras|IS:0138-8452|Technology|Agriculture|Hunting, fishing, conservation, related technologies|Commercial fishing, whaling, sealing|639.1|Agricultural Sciences|Fishery|Life Sciences|Agricultural and Biological Sciences|Aquatic Science; Animal Science and Zoology; Ecology, Evolution, Behavior and Systematics; Food Science|1104; 1103; 1105; 1106|Life Sciences & Biomedicine|Fisheries; Marine & Freshwater Biology|None

149|Revista Cubana de Medicina|IS:1561-302X|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|General Medicine|2700|Life Sciences & Biomedicine|General & Internal Medicine; Legal Medicine; Research & Experimental Medicine|SciELO CI; Scopus

150|Revista Cubana de Medicina del Deporte y la Cultura Física|IS:1728-922X|Technology|Medicine & health|Surgery, regional medicine, dentistry, ophthalmology, otology, audiology|Injuries and wounds|617.1|Medical Sciences, Social Sciences|Medicine, Therapeutics and Rehabilitation, Traumatology and orthopedics, Sports|Health Sciences|Medicine; Health Professions; Computer Science|Medicine (miscellaneous); Physical Therapy, Sports Therapy and Rehabilitation; Orthopedics and Sports Medicine; Sports Science|2701; 3612; 2732|Life Sciences & Biomedicine|General & Internal Medicine; Sport Sciences|None

151|Revista Cubana de Medicina Física y Rehabilitación|IS:2078-7162|Technology|Medicine & health|Diseases|Diseases of musculoskeletal system|616.7|Medical Sciences|Medicine, Therapeutics and Rehabilitation, Traumatology and orthopedics|Health Sciences|Medicine|Physical Therapy, Sports Therapy and Rehabilitation; Rehabilitation; Sports Science|3612; 2742|Life Sciences & Biomedicine|Health Care Sciences & Services; Rehabilitation|None

152|Revista Cubana de Medicina General Integral|IS:1561-3038|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Medicine (miscellaneous)|2701|Life Sciences & Biomedicine|General & Internal Medicine|SciELO CI; Scopus

153|Revista Cubana de Medicina Intensiva y Emergencias|IS:1810-2352|Technology|Medicine & health|Diseases|Special topics of diseases; Other diseases|616.02; 616.9|Medical Sciences|Medicine, Traumatology and orthopedics|Health Sciences|Medicine|Critical Care and Intensive Care Medicine; Emergency Medicine|2706; 2711|Life Sciences & Biomedicine|Emergency Medicine|None

154|Revista Cubana de Medicina Militar|IS:1561-3046|Technology; Social sciences|Medicine & health; Social sciences|Surgery, regional medicine, dentistry, ophthalmology, otology, audiology; Military, defense, public property, public finance, tax, commerce (trade), industrial law|Injuries and wounds; Operative surgery and special fields of surgery|617.1; 617.9; 343|Medical Sciences|Medicine, Traumatology and orthopedics|Health Sciences|Medicine|Medicine (miscellaneous)|2701|Life Sciences & Biomedicine|Medicine, General & Internal|SciELO CI; Scopus

155|Revista Cubana de Medicina Tropical|IS:1561-3054|Technology; Social sciences|Medicine & health|Specific diseases|Other diseases|616.9|Medical Sciences|Epidemiology, Medicine, Microbiology, Parasitology, Infectology|Health Sciences; Life Sciences|Medicine; Immunology and Microbiology|Infectious Diseases; Microbiology (medical); Parasitology; Virology|2725; 2726; 2405; 2406|Life Sciences & Biomedicine|Tropical Medicine|SciELO CI; Scopus

156|Revista Cubana de Meteorología|IS:0864-151X|Science|Earth sciences & geology|Geology, hydrology, meteorology|Meteorology|551.5|Exact and Natural Sciences|Atmospheric sciences|Physical Sciences|Earth and Planetary Sciences; Environmental Science|Atmospheric Science; Environmental Science (miscellaneous)|1902; 2301|Physical Sciences|Meteorology & Atmospheric Sciences|None

157|Revista Cubana de Neurología y Neurocirugía|IS:2225-4676|Technology|Medicine & health|Diseases of nervous system and mental disorders; Surgery, regional medicine, dentistry, ophthalmology, otology, audiology|Diseases of nervous system and mental disorders; Surgery by systems|616.8, 617.4|Medical Sciences|Neurology, Surgery|Health Sciences; Life Sciences|Medicine; Neuroscience|Neurology; Clinical Neurology; Surgery|2808; 2728; 2746|Life Sciences & Biomedicine|Neurosciences & Neurology|None

158|Revista Cubana de Obstetricia y Ginecología|IS:1561-3062|Technology|Medicine & health|Gynecology, obstetrics, pediatrics, geriatrics|NA|618|Medical Sciences|Obstetrics and Gynecology,

Medicine|Health Sciences|Medicine|Obstetrics and Gynaecology; Pediatrics, Perinatology, and Child Health; Reproductive Medicine|2729; 2735; 2743|Life Sciences & Biomedicine|Obstetrics & Gynecology|SciELO CI; Scopus

159|Revista Cubana de Oftalmología|IS:1561-3070|Technology|Medicine & health|Surgery, regional medicine, dentistry, ophthalmology, otology, audiology|Ophthalmology|617.7|Medical Sciences|Medicine, Ophthalmology|Health Sciences|Medicine; Health Professions|Ophthalmology|2731|Life Sciences & Biomedicine|Ophthalmology|SciELO CI

160|Revista Cubana de Ortopedia y Traumatología|IS:1561-3100|Technology|Medicine & health|Diseases; Surgery, regional medicine, dentistry, ophthalmology, otology, audiology|Diseases of musculoskeletal system; Injuries and wounds|616.7; 617.1|Medical Sciences|Medicine, Traumatology and orthopedics|Health Sciences|Medicine; Health Professions|Orthopedics and Sports Medicine; Rehabilitation; Surgery; Physical Therapy, Sports Therapy and Rehabilitation|2732; 2742; 2746; 3612|Life Sciences & Biomedicine|Orthopedics|SciELO CI; Scopus

161|Revista Cubana de Pediatría|IS:1561-3119|Technology|Medicine & health|Gynecology, obstetrics, pediatrics, geriatrics|Pediatrics and geriatrics|618.9|Medical Sciences|Pediatrics|Health Sciences|Medicine|Pediatrics, Perinatology, and Child Health|2735|Life Sciences & Biomedicine|Pediatrics|SciELO CI; Scopus

162|Revista Cubana de Plantas Medicinales|IS:1028-4796|Technology|Medicine & health|Pharmacology and therapeutics|Organic drugs|615.3|Medical Sciences|Medicine, Pharmacology, Pharmacy, Toxicology, Botany|Health Sciences; Life Sciences; |Medicine; Pharmacology, Toxicology and Pharmaceutics|Complementary and alternative medicine; Drug Discovery; Plant Science; Pharmacology|2707; 3002; 1110; 3004|Life Sciences & Biomedicine|Pharmacology & Pharmacy; Plant Sciences|SciELO CI; Scopus

163|Revista Cubana de Química|IS:2224-5421|Science|Chemistry|Chemistry and allied sciences|NA|540|Exact and Natural Sciences|Chemistry|Physical Sciences|Chemistry; Chemical Engineering|Chemistry (miscellaneous); Chemical Engineering (miscellaneous)|1601; 1501|Physical Sciences|Chemistry, Multidisciplinary|SciELO CI

164|Revista Cubana de Reumatología|IS:1817-5996|Technology|Medicine & health|Diseases|Diseases of musculoskeletal system|616.7|Medical Sciences|Rheumatology, Therapy and Rehabilitation, Traumatology and orthopedics|Health Sciences|Medicine|Rheumatology; Immunology and Allergy; Medicine (miscellaneous)|2745; 2723; 2701|Life Sciences & Biomedicine|Rheumatology|ESCI; SciELO CI

165|Revista Cubana de Salud Pública|IS:1561-3127|Technology; Social sciences|Medicine & health; Social sciences|Forensic medicine; incidence of injuries, wounds, disease; public preventive medicine; Law; Social problems of and services to groups of people|Incidence of and public measures to prevent disease ; Miscellaneous social problems and services; People with physical illnesses|614.4; 344.04; 362,1|Medical Sciences|Medicine, Public health|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Health Policy|2739; 2719|Life Sciences & Biomedicine|Public, Environmental & Occupational Health; Health Policy & Services|SciELO CI; Scopus

166|Revista Cubana de Salud y Trabajo|IS:1608-6384|Technology|Medicine & health|Personal health and safety|Personal safety and special topics of health|613.6|Medical Sciences|Public Health|Health Sciences;

Physical Sciences; Social Sciences|Medicine; Environmental Science; Psychology|Public Health, Environmental and Occupational Health; Health, Toxicology and Mutagenesis; Applied Psychology|2739; 2307; 3202|Life Sciences & Biomedicine|Public, Environmental & Occupational Health|None

167|Revista Cubana de Tecnología de la Salud|IS:2218-6719|Technology; Social sciences|Medicine & health|Medicine and health|NA|610|Medical Sciences|Public health, Technology, Biomedical engineering, Sanitary engineering|Health Sciences|Health Professions; Medicine|Medical Laboratory Technology; Radiological and Ultrasound Technology; Health Policy; |3607; 3614; 2719|Life Sciences & Biomedicine|Health Care Sciences & Services|None

168|Revista Cubana de Urología|IS:2305-7939|Technology|Medicine & health|Diseases|Diseases of urogenital system|616.6|Medical Sciences|Medicine, Nefrology|Health Sciences|Medicine|Urology; Nephrology|2748; 2727|Life Sciences & Biomedicine|Urology & Nephrology|None

169|Revista Cubana del Arroz|IS:1607-6273|Technology|Agriculture|Field and plantation crops|Cereals|633.1|Agricultural Sciences|Agronomy|Life Sciences|Agricultural and Biological Sciences|Agronomy and Crop Science; Plant Science; Soil Science|1102; 1110; 1111|Life Sciences & Biomedicine|Agronomy; Plant Sciences|None

170|Revista de Arquitectura e Ingeniería|IS:1990-8830|Arts & recreation|Architecture|Architecture|NA|720|Engineering Sciences|Architecture|Physical Sciences|Engineering|Building and Construction; Civil and Structural Engineering |2215; 2205|Technology|Construction & Building Technology; Engineering|None

171|Revista de Ciencias Farmacéuticas y Alimentarias|IS:2411-927X|Technology|Medicine & health|Pharmacology and therapeutics; Food and drink|NA; Food|615; 641.3|Medical Sciences|Pharmacology, Pharmacy, endocrinology and nutrition|Life Sciences|Pharmacology, Toxicology and Pharmaceutics; Agricultural and Biological Sciences|Pharmacology, Toxicology and Pharmaceutics (miscellaneous); Drug Discovery; Food Science|3001; 3002; 1106|Life Sciences & Biomedicine|Food Science & Technology; Pharmacology & Pharmacy|None

172|Revista de Ciencias Médicas de Pinar del Río|IS:1561-3194|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine, Public health|Health Sciences|Medicine|Medicine (miscellaneous); Public Health, Environmental and Occupational Health; Critical Care and Intensive Care Medicine; Emergency Medicine|2701; 2739|Life Sciences & Biomedicine|General & Internal Medicine|SciELO CI

173|Revista Información Científica|IS:1028-9933|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine, Public health|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2701; 2739|Life Sciences & Biomedicine|Medicine, General & Internal |SciELO CI

174|Revista de Investigaciones Marinas|IS:1991-6086|Science|Earth sciences & geology; Biology|Geology, hydrology, meteorology; Organisms characteristic of specific kinds of environments|Geomorphology and hydrosphere; Aquatic environments, marine biology|551.46; 578.77|Exact and Natural Sciences|Oceanography, Ecology, Ictiology, Biology|Life Sciences|Agricultural and Biological Sciences; Earth and Planetary Sciences|Aquatic Science; Ecology, Evolution, Behavior

and Systematics; Oceanography|1104; 1105; 1910|Life Sciences & Biomedicine|Marine & Freshwater Biology|None

175|Revista de Producción Animal|IS:2224-7920|Technology|Agriculture|Animal husbandry|NA|636|Agricultural Sciences|Animal husbandry, Veterinary, Zootechnics|Life Sciences; Health Sciences|Agricultural and Biological Sciences; Veterinary|Animal Science and Zoology; Food animals; Food Science; Veterinary (miscellaneous)|1103; 3403; 1106; 3401|Life Sciences & Biomedicine|Agriculture, Dairy & Animal Science; Veterinary Sciences|SciELO CI

176|Revista de Protección Vegetal|IS:2305-8161|Technology|Agriculture|Plant injuries, diseases, pests|NA|632|Agricultural Sciences, Exact and Natural Sciences|Agronomy, Biology, Biotechnology, Botany, Ecology|Life Sciences|Agricultural and Biological Sciences|Plant Science; Agronomy and Crop Science; Horticulture|1110; 1102; 1108|Life Sciences & Biomedicine|Agricultural Engineering; Agronomy|SciELO CI

177|Revista de Salud Animal|IS:2224-4700|Technology|Agriculture|Animal husbandry|Veterinary medicine|636.89|Agricultural Sciences|Veterinary, Animal husbandry|Life Sciences; Health Sciences|Agricultural and Biological Sciences; Veterinary|Animal Science and Zoology; Veterinary (miscellaneous); Food Animals; Equine; Small animals|1103; 3401; 3403; 3402; 3404|Life Sciences & Biomedicine|Agriculture, Dairy & Animal Science; Veterinary Sciences|SciELO CI

178|Revista del Hospital Psiquiátrico de La Habana|IS:1813-6257|Technology|Medicine & health|Diseases|Diseases of nervous system and mental disorders|616.8|Medical Sciences|Psychiatry|Health Sciences|Medicine|Psychiatry and Mental health|2738|Life Sciences & Biomedicine|Psychiatry; Neurosciences & Neurology|Scopus

179|Revista del Jardín Botánico Nacional|IS:2410-5546|Science|Plants (Botany)|Plants|Collections and exhibits of living plants|580.73|Exact and Natural Sciences|Botany|Life Sciences|Agricultural and Biological Sciences|Ecology, Evolution, Behavior and Systematics; Plant Science|1105; 1110|Life Sciences & Biomedicine|Plant Sciences|Scopus

180|Revista Electrónica “Dr. Zoilo E. Marinello Vidaurreta”|IS:1029-3027|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Medicine (miscellaneous)|2701; 2739|Life Sciences & Biomedicine|General & Internal Medicine|None

181|Revista Forestal Baracoa|IS:2078-7235|Technology|Agriculture|Orchards, fruits, forestry|Forestry|634.9|Agricultural Sciences|Agronomy, Botany|Life Sciences; Physical Sciences; Social Sciences|Agricultural and Biological Sciences; Environmental Science; Social Sciences|Forestry; Plant Science; Nature and Landscape Conservation; Geography, Planning and Development|1107; 1110; 2309; 3305|Life Sciences & Biomedicine|Plant Sciences; Ecology; Forestry|None

182|Revista Habanera de Ciencias Médicas|IS:1729-519X|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Public health, Medicine|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Health Policy; Medicine (miscellaneous)|2739; 2719; 2701|Life Sciences & Biomedicine|Public, Environmental & Occupational Health|SciELO CI; Scopus

183|Revista Ingeniería Agrícola|IS:2227-8761|Technology|Agriculture|Specific techniques; apparatus, equipment, materials|Tools, machinery, apparatus, equipment|631.3|Agricultural Sciences, Engineering

Sciences|Agronomy, Mechanical engineering|Physical Sciences; Life Sciences|Engineering; Agricultural and Biological Sciences|Mechanical Engineering; Agronomy and Crop Science; Soil Science; Industrial and Manufacturing Engineering; Energy (miscellaneous)|2210; 1102; 1111; 2209; 2101|Life Sciences & Biomedicine|Agricultural Engineering; Agronomy|None

184|Revista IPLAC|IS:1993-6850|Social sciences|Education|Education|NA|370|Social Sciences|Education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

185|Revista Médica Electrónica|IS:1684-1824|Technology|Medicine & health|Medicine and health|NA|610|Medical Sciences|Medicine, Nursing, Public Health|Health Sciences|Medicine|Public Health, Environmental and Occupational Health; Health Policy|2739; 2719|Life Sciences & Biomedicine|General & Internal Medicine|SciELO CI

186|Revista Varela|IS:1810-3413|Social sciences|Education|Education|NA|370|Social Sciences|Education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

187|Roca|IS:2074-0735|Social sciences|Education|Education|NA|370|Social Sciences|Education, Higher education, Pedagogy, Sociology|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|None

188|Santiago|IS:2227-6513|Social sciences|Social sciences, sociology & anthropology|Social sciences|NA|300|Social Sciences|Economics, History, Pedagogy, Sociology, Social work|Social Sciences|Social Sciences|Social Sciences (miscellaneous)|3301|Social Sciences|Social Sciences - Other Topics|None

189|Serie Oceanológica|IS:2072-800X|Science|Earth sciences & geology|Geology, hydrology, meteorology|Geomorphology and hydrosphere, Oceanography and submarine geology|551.46|Exact and Natural Sciences|Zoology, Non-renewable natural resources, Ichthyology, Geology, Biology, Earth sciences, Ecology, Oceanography|Life Sciences; Physical Sciences|Agricultural and Biological Sciences; Environmental Science; Earth and Planetary Sciences|Aquatic Science; Ecology, Evolution, Behavior and Systematics; Management, Monitoring, Policy and Law; Oceanography|1104; 1105; 2308; 1910|Life Sciences & Biomedicine|Marine & Freshwater Biology; Oceanography|None

190|Siga La Marcha|IS:1025-4846|History & geography|History|Collected accounts of events|NA|904|Arts and Humanities, Social Sciences|History, Culture|Social Sciences|Arts and Humanities; Social Sciences|History; Cultural Studies|1202; 3316|Social Sciences; Arts & Humanities|Cultural Studies; History|None

191|Tecnología Química|IS:2224-6185|Technology|Chemical engineering|Chemical engineering and related technologies|NA|660|Engineering Sciences|Chemical Engineering|Physical Sciences|Chemical Engineering; Chemistry; Engineering|Chemical Engineering (miscellaneous); Chemistry (miscellaneous); Industrial and Manufacturing Engineering|1501; 1601; 2209|Technology|Engineering, Chemical; Chemistry, Applied|SciELO CI

192|Temas|IS:0864-134X|Social sciences|Social sciences, sociology & anthropology|Social processes|NA|303|Arts and Humanities, Social Sciences|Culture, Sociology|Social Sciences|Social Sciences; Arts and Humanities|Social Sciences (miscellaneous); Sociology and Political Science;

Anthropology; Cultural Studies; Development; Law; Arts and Humanities (miscellaneous)|3301; 3312; 3314; 3316; 3308; 3303; 3316; 1201|Social Sciences|Social Sciences, Interdisciplinary; Sociology|None

193|Temas de Economía Mundial|IS:1997-4183|Social sciences|Economics|International economics|NA|337|Social Sciences|Economics, International economics, Finance|Social Sciences|Business, Management and Accounting; Economics, Econometrics and Finance|Business and International Management; General Economics, Econometrics and Finance; Political Science and International Relations|1403; 2000; 3320|Social Sciences|Economics|None

194|Transformación|IS:2077-2955|Social sciences|Education|Education||370|Social Sciences|Education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|SciELO CI

195|Transporte, Desarrollo y Medio Ambiente|IS:1025-4838|Social sciences|Commerce, communications & transportation|Transportation|NA|388|Engineering Sciences, Exact and Natural Sciences|Transport engineering, Marine and harbor engineering, Ecology|Social Sciences; Physical Sciences|Social Sciences; Environmental Science|Development; Transportation; Law; Pollution|3303; 3308; 3313; 2310|Technology|Transportation; Transportation Science & Technology; Environmental Sciences & Ecology|None

196|Universidad & Ciencia|IS:2227-2690|Science; Technology; Social sciences|Science; Technology; Social sciences, sociology & anthropology|NA|NA|500; 600; 300|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|Multidisciplinary|1000|Multidisciplinary|Multidisciplinary Sciences|None

197|Universidad de La Habana|IS:0253-9276|Social sciences|Education|Higher education (Tertiary education)|NA|378|Social Sciences|Education, Higher education|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|SciELO CI

198|Universidad y Sociedad|IS:2218-3620|Social sciences|Social sciences, sociology & anthropology|Culture and institutions|Specific aspects of culture, Education|306.43|Social Sciences|Social Sciences and humanities, Education, Higher education, Sociology|Social Sciences|Social Sciences|General Social Sciences; Education|3300; 3304|Social Sciences|Social Sciences - Other Topics|ESCI; SciELO CI

199|Vaccimonitor|IS:1025-0298|Technology|Medicine & health|Forensic medicine; incidence of injuries, wounds, disease; public preventive medicine|Incidence of and public measures to prevent disease; Biochemical genetics; Biotechnology|614.5|Medical Sciences|Medicine, Immunology, Biochemistry, Microbiology, Biotechnology|Life Sciences; Health Sciences|Pharmacology, Toxicology and Pharmaceutics; Biochemistry, Genetics and Molecular Biology; Immunology and Microbiology; Medicine|Drug Discovery; Molecular Medicine; Immunology; Immunology and Allergy; Biotechnology|3002; 1313; 2403; 2723; 1305|Life Sciences & Biomedicine|Life Sciences & Biomedicine - Other Topics|SciELO; Scopus

200|Varona|IS:0864-196X|Social sciences|Education|Education|NA|370|Social Sciences|Education, Higher education, Pedagogy|Social Sciences|Social Sciences|Education|3304|Social Sciences|Education & Educational Research|SciELO CI