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Ranking the Rankings: Mathematics Department Performance across the Gulf Cooperation Council (GCC), 2025–2026

تصنيف التصنيفات :أداء أقسام الرياضيات في دول مجلس التعاون الخليجي خلال الفترة 2025–2026

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Abstract:

University rankings have become a global yardstick for academic excellence, influencing funding, faculty mobility, student recruitment, and institutional prestige. For mathematics departments, rankings reflect research productivity, citation impact, and international reputation, but they also conceal contributions in teaching, community engagement, and locally relevant applied research. This report provides a data-driven analysis of mathematics department performance across the six member states of the Gulf Cooperation Council (GCC)—Saudi Arabia, the United Arab Emirates, Qatar, Kuwait, Bahrain, and Oman—using the 2025 and 2026 editions of the QS World University Rankings by Subject, the Shanghai Ranking Global Ranking of Academic Subjects (GRAS/ARWU), the Times Higher Education (THE) World University Rankings by Subject, SCImago/Scopus bibliometric indicators, and the Stanford/Elsevier Top 2% Scientists list. It corrects several material inaccuracies in earlier working drafts, incorporates recent critical scholarship on the computation of the Top 2% list, and situates Jazan University's Department of Mathematics within the regional landscape.

The central empirical finding is that the internal hierarchy of Saudi mathematics departments is more differentiated than a single ranking can capture. In QS Mathematics 2026, King Abdulaziz University (KAU) is placed at =58, King Fahd University of Petroleum and Minerals (KFUPM) at =93, King Saud University (KSU) at =111, and King Abdullah University of Science and Technology (KAUST) at =130. In ARWU Mathematics 2026, the ordering shifts: KAU is placed at 42, KSU, Princess Nourah, and Qassim occupy 101–150 bands, KAUST is in 151–200, and KFUPM in 201–300. These divergences reflect methodological differences—QS weights academic reputation at 40%, whereas ARWU emphasises top-journal output and highly cited researchers—and they imply that rankings must be reported system by system rather than aggregated into a single implied league table.

The Stanford/Elsevier Top 2% list adds a third, researcher-level view. Saudi Arabia is represented by 2,110 listed scientists in the 2025 single-year edition (18th globally), with KFUPM (197) and KAUST (183) leading institutionally. Mathematics is a smaller component of this representation, but GCC mathematicians do appear in the list, including at KAU, KSU, Khalifa, and Kuwait University. The report also examines the computational foundations of the list, including Scopus-versus-Google-Scholar coverage, name disambiguation, self-citation, and the publisher-coverage bias documented by Lipo, DiNapoli, and Andrus (2026), who find that median Scopus coverage is only 45.3% of Open Alex publications and that researchers publishing in Elsevier journals enjoy a 30.6 percentage-point coverage advantage.

Outside Saudi Arabia, Khalifa University (UAE) maintains a QS Mathematics position of 130, consolidating its role as the UAE's leading mathematics department. Qatar University holds the 251–300 QS band and a high citation impact relative to volume. The smaller GCC states remain represented by a single flagship institution each: Sultan Qaboos University (Oman) at 401–450, Kuwait University at 501–600, and the University of Bahrain outside the top mathematics bands.

For Jazan University, the record shows QS: not ranked; ARWU Mathematics 2026: 201–300, confirmed by the Saudi Press Agency; THE Natural Sciences, Mathematics and Statistics 2026: 601–800; and US News Mathematics 2027: =223. The department holds NCAAA and ASIIN accreditation for its Bachelor's and Master's programmes, has operated a PhD programme since 2021, and has a growing 2025 publication record in *AIMS Mathematics*, the *Kuwait Journal of Science*, and other Scopus-indexed outlets. Its strategic challenge is to convert accreditation credibility and applied regional relevance into visible, sustainable research output and, eventually, into a sustained Top 2% mathematics presence.

Keywords: university rankings; mathematics departments; GCC; QS; Shanghai GRAS; ARWU; THE; SCImago; bibliometrics; Stanford/Elsevier Top 2% Scientists; publisher coverage bias; Jazan University; ASIIN accreditation; Saudi Vision 2030.

الملخص:

أصبحت التصنيفات الجامعية معيارًا عالميًا لقياس التميز الأكاديمي، إذ تؤثر في التمويل، وتنقّل أعضاء هيئة التدريس، واستقطاب الطلبة، والمكانة المؤسسية .وبالنسبة إلى أقسام الرياضيات، تعكس التصنيفات الإنتاجية البحثية، وتأثير الاستشهادات، والسمعة الدولية، لكنها في الوقت نفسه قد لا تُظهر إسهامات هذه الأقسام في التدريس، والمشاركة المجتمعية، والبحوث التطبيقية ذات الصلة بالاحتياجات المحلية .ويقدم هذا التقرير تحليلًا قائمًا على البيانات لأداء أقسام الرياضيات في الدول الأعضاء الست في مجلس التعاون لدول الخليج العربية، وهي المملكة العربية السعودية، والإمارات العربية المتحدة، وقطر، والكويت، والبحرين، وسلطنة عُمان، بالاستناد إلى نسختي 2025و2026 من تصنيف QSالعالمي للجامعات حسب التخصص، والتصنيف العالمي للمواد الأكاديمية الصادر عن شنغهاي (GRAS/ARWU)، وتصنيف التايمز للتعليم العالي (THE)العالمي للجامعات حسب التخصص، والمؤشرات البيليومترية الصادرة عن SCImago/Scopus، وقائمة ستانفورد/إلسيفير لأفضل 2%من العلماء .كما يصحح التقرير عددًا من الأخطاء الجوهرية الواردة في المسودات السابقة، ويستفيد من الدراسات النقدية الحديثة المتعلقة بآلية احتساب قائمة أفضل 2%من العلماء، ويضع قسم الرياضيات بجامعة جازان ضمن السياق الإقليمي.

وتتمثل النتيجة التجريبية الرئيسية في أن التفاوت في ترتيب أقسام الرياضيات السعودية أكثر تمايزًا مما يمكن أن يعكسه تصنيف واحد .ففي تصنيف QSللرياضيات لعام 2026، جاءت جامعة الملك عبدالعزيز في المرتبة 58=، وجامعة الملك فهد للبترول والمعادن في المرتبة 93=، وجامعة الملك سعود في المرتبة 111=، وجامعة الملك عبدالله للعلوم والتقنية في المرتبة 130=.أما في تصنيف شنغهاي للرياضيات لعام 2026، فقد اختلف ترتيب الجامعات؛ إذ جاءت جامعة الملك عبدالعزيز في المرتبة 42، ووقعت جامعة الملك سعود وجامعة الأميرة نورة بنت عبدالرحمن وجامعة القصيم ضمن الفئة 150–101، وجامعة الملك عبدالله للعلوم والتقنية ضمن الفئة 200–151، وجامعة الملك فهد للبترول والمعادن ضمن الفئة 300–201.وتعكس هذه الاختلافات التباين في المنهجيات؛ إذ يمنح تصنيف QSالسمعة الأكاديمية وزنًا يبلغ 40%، في حين يركز تصنيف شنغهاي على الإنتاج المنشور في المجلات العلمية المرموقة والباحثين الأعلى استشهادًا .وتؤكد هذه الاختلافات ضرورة عرض نتائج كل نظام تصنيف على حدة، بدلًا من دمجها في جدول ترتيب موحد ضمني.

وتقدم قائمة ستانفورد/إلسيفير لأفضل 2%من العلماء منظورًا ثالثًا على مستوى الباحثين .فقد بلغ عدد العلماء السعوديين المدرجين في نسخة عام 2025المعتمدة على الأداء خلال سنة واحدة 2,110علماء، ما وضع المملكة في المرتبة 18عالميًا، وتصدرت جامعة الملك فهد للبترول والمعادن، بواقع 197عالمًا، وجامعة الملك عبدالله للعلوم والتقنية، بواقع 183عالمًا، التمثيل المؤسسي . وتمثل الرياضيات جزءًا أصغر من هذا الحضور، إلا أن القائمة تضم رياضيين من دول مجلس التعاون الخليجي، من بينهم باحثون في جامعة الملك عبدالعزيز، وجامعة الملك سعود، وجامعة خليفة، وجامعة الكويت .ويفحص التقرير كذلك الأسس الحاسوبية لهذه القائمة، بما في ذلك اختلاف التغطية بين Scopusو Google Scholar، ومشكلات التمييز بين الباحثين المتشابهة أسماؤهم، والاستشهادات الذاتية، والتحيز الناجم عن تغطية الناشرين .وفي هذا السياق، يستعرض التقرير دراسة Lipoو DiNapoli و(2026) Andrus، التي وجدت أن متوسط التغطية الوسيط في Scopusلا يتجاوز 45.3%من المنشورات المفهرسة في OpenAlex، وأن الباحثين الذين ينشرون في مجلات إلسيفير يتمتعون بميزة في التغطية تبلغ 30.6نقطة مئوية.

أما خارج المملكة العربية السعودية، فتحافظ جامعة خليفة في الإمارات العربية المتحدة على المرتبة 130في تصنيف QS للرياضيات، مما يعزز مكانتها بوصفها الجامعة الإماراتية الرائدة في هذا المجال .وتقع جامعة قطر ضمن الفئة 300–251في تصنيف QS، وتحقق تأثيرًا مرتفعًا للاستشهادات مقارنة بحجم إنتاجها البحثي .أما الدول الخليجية الأصغر، فيمثل كلًّا منها بصورة أساسية مؤسسة جامعية رائدة واحدة؛ إذ تقع جامعة السلطان قابوس في سلطنة عُمان ضمن الفئة 450–401، وجامعة الكويت ضمن الفئة 600–501، في حين تقع جامعة البحرين خارج الفئات المتقدمة في تصنيف الرياضيات.

وبالنسبة إلى جامعة جازان، تُظهر البيانات أنها غير مدرجة في تصنيف QS، وتقع ضمن الفئة 300–201في تصنيف شنغهاي للرياضيات لعام 2026، وفقًا لما أكدته وكالة الأنباء السعودية، كما تقع ضمن الفئة 800–601في تصنيف التايمز للتعليم العالي لعام 2026في مجال العلوم الطبيعية والرياضيات والإحصاء، وتحتل المرتبة 223=في تصنيف US Newsللرياضيات لعام 2027.ويحظى القسم باعتماد المركز الوطني للتقويم والاعتماد الأكاديمي (NCAAA)واعتماد ASIINلبرنامجي البكالوريوس والماجستير، كما يقدم برنامجًا للدكتوراه منذ عام 2021، ويشهد نموًا في إنتاجه البحثي المنشور خلال عام 2025في مجلات مثل AIMS Mathematics وKuwait Journal of Scienceوغيرها من الدوريات المفهرسة في Scopus.ويتمثل التحدي الاستراتيجي للقسم في تحويل مصداقية الاعتماد الأكاديمي وارتباط بحوثه التطبيقية بالاحتياجات الإقليمية إلى إنتاج بحثي واضح ومستدام، بما يمهد الطريق لتحقيق حضور مستمر لعلماء الرياضيات التابعين له ضمن قائمة أفضل 2%من العلماء.

الكلمات المفتاحية :التصنيفات الجامعية؛ أقسام الرياضيات؛ مجلس التعاون لدول الخليج العربية؛ QS؛ تصنيف شنغهاي GRAS؛ ARWU؛ التايمز للتعليم العالي THE؛ SCImago؛ القياسات الببليومترية؛ قائمة ستانفورد/إلسيفير لأفضل 2%من العلماء؛ التحيز في تغطية الناشرين؛ جامعة جازان؛ اعتماد ASIIN؛ رؤية السعودية 2030 .

1. Introduction

Mathematics is foundational to science, engineering, data science, and artificial intelligence, and the Gulf Cooperation Council (GCC) states have invested heavily in higher education to build research capacity in the discipline. Saudi Vision 2030, UAE Centennial 2071, Qatar National Vision 2030, Kuwait Vision 2035, Bahrain Economic Vision 2030, and Oman Vision 2040 all identify research and innovation as pillars of economic diversification. Mathematics departments are central to these agendas because they supply the analytical workforce and the modelling capability on which digital economies depend.

Global rankings have become the most visible proxy for departmental strength. They influence government funding formulas, faculty recruitment, student choice, and international partnership formation. Yet rankings are not neutral measurements. They encode methodological choices—how much weight to give reputation, how to normalise citations, which publication thresholds to impose—that systematically favour some institutional models over others. This report takes those methodological differences seriously and reports rankings system by system, rather than treating them as interchangeable.

The report has six objectives. First, it establishes the 2025–2026 ranking position of leading mathematics departments in each GCC state. Second, it compares institutional performance across QS, ARWU/GRAS, THE, and SCImago indicators, explaining why the orderings diverge. Third, it introduces the Stanford/Elsevier Top 2% Scientists list as an independent, researcher-level evidence stream and assesses GCC and mathematics representation. Fourth, it subjects the computation of the Top 2% list to critical scrutiny, drawing on recent scholarship on publisher coverage bias, database choice, and name disambiguation. Fifth, it situates Jazan University's Department of Mathematics within this landscape using the most reliable available data, including accreditation status, PhD programme metrics, publication evidence, and Top 2% representation. Sixth, it proposes a strategic roadmap for regional universities that balances ranking ambition with locally relevant research and teaching missions.

The analysis is based on publicly available ranking data from QS 2026, ARWU/GRAS 2026, THE 2026, and SCImago 2025 (Scopus data as of March 2026), together with the Stanford/Elsevier Top 2% lists as compiled by TOPSCINET and related institutional sources. It also draws on institutional accreditation records, the XuanXiao compilation of subject rankings, and the Saudi Press Agency's confirmation of Jazan University's ARWU 2026 placement. Where sources conflict—as they do for some Jazan University bands across systems—the report flags the discrepancy rather than resolving it artificially.

2. METHODOLOGY AND THE RANKING LANDSCAPE

2.1. THE THREE DOMINANT SYSTEMS

The three ranking systems most frequently cited for mathematics departments use fundamentally different indicators.

QS World University Rankings by Subject allocates 40% to academic reputation, 10% to employer reputation, 20% to citations per paper, 20% to H-index, and 10% to international faculty and student ratios. QS is therefore a reputation-weighted system. It rewards size, age, and broad disciplinary visibility, and it disadvantages younger or smaller departments whose research may be excellent but whose global reputational footprint is limited.

Shanghai Ranking GRAS / ARWU does not use reputation surveys. It weights papers in top journals (25%), field-weighted citation impact (25%), research productivity volume (30%), highly cited researchers (10%), and international collaboration (5%). ARWU is therefore a productivity- and citation-weighted system. It rewards departments with large output and high per-paper impact, and it imposes volume thresholds that can exclude smaller departments entirely.

Times Higher Education (THE) uses a reputation survey at 15%, citation impact at 30%, research productivity at 30%, and international outlook at 7.5%, alongside other institutional indicators. THE occupies an intermediate position: it gives some weight to reputation but much less than QS, and it gives substantial weight to productivity and citations.

Table 1: Comparison of ranking methodologies for mathematics, 2025--2026

Dimension	QS by Subject	ARWU / GRAS	THE by Subject
Academic reputation	Global survey (40%)	Not used	Survey (15%)
Employer reputation	Survey (10%)	Not used	Not used
Research output	Citations per paper (20%), H-index (20%)	Top-journal papers (25%), FWCI (25%), volume (30%)	Productivity (30%)
Citations	Normalised impact (20%)	Highly cited researchers (10%)	Citation impact (30%)
Internationalisation	International faculty/students (10%)	International collaboration (5%)	International outlook (7.5%)

1.1 **SOURCES:** QS, SHANGHAI RANKING, AND THE PUBLISHED METHODOLOGIES, 2025--2026 EDITIONS.

2.2. THE STANFORD/ELSEVIER TOP 2% LIST AS A COMPLEMENTARY SOURCE

The Stanford/Elsevier Top 2% Scientists list is not a ranking of universities or departments. It is a researcher-level database identifying individuals whose composite citation score places them in the top 2% of their subfield, using Scopus data. The 2025 edition uses 22 broad fields and 174 subfields and produces two complementary views: a career-long assessment covering 1960–2024 and a single-year assessment covering 2024. The composite score combines standardised citation counts, h-index, the co-

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authorship-adjusted hm-index, and citations weighted by authorship position (single, first, and last author). Inclusion therefore depends on citation impact rather than publication volume, and the list explicitly cautions that non-inclusion does not imply poor research quality.

For GCC analysis, the list is valuable because it provides a bottom-up, reputation-independent signal that complements the top-down ranking systems discussed above. It is particularly relevant for regional universities because QS reputation scores lag structural realities, whereas the 2% list captures the citation impact of individual faculty members regardless of their institution's age or reputational visibility. The limitation is equally important: the list does not measure teaching, local impact, or departmental coherence, and subfield classifications can be noisy, especially in applied and interdisciplinary mathematics. Moreover, as Section 6 shows, the list's reliance on a single commercial database introduces biases that are now beginning to be documented systematically.

2.3. Structural Biases Against Regional Universities

The methodological architecture of global rankings creates four specific disadvantages for GCC departments outside the elite tier.

Reputation lag. The QS academic reputation survey draws disproportionately from senior academics in North America and Europe. A department founded in the 2000s, or one located in a regional university with limited international conference presence, accumulates reputational recognition slowly. Reputation is a lagging indicator that understates the standing of younger institutions.

Citation accumulation time. Field-weighted citation impact and H-index metrics require a critical mass of publications that have had time to be cited. A department publishing 20–30 papers per year will take five to seven years to build a citation profile visible to ranking algorithms. This creates a structural entry delay unrelated to research quality.

Volume thresholds. ARWU and THE impose minimum publication thresholds. A department below the threshold is excluded regardless of per-paper quality. For smaller GCC departments, this is often the binding constraint.

Field-weighting and local relevance. Field-weighted citation impact normalises against global averages. Research on regional problems—flood modelling, desalination optimisation, local epidemiology—may generate substantial local impact but attract fewer international citations than research aligned with globally "hot" topics. The ranking system therefore contains a built-in incentive against locally engaged applied mathematics, which is precisely the niche regional universities are best positioned to occupy.

2.4. Complementary National Frameworks

Because global rankings capture only a subset of what matters, this analysis also draws on national quality-assurance frameworks. In Saudi Arabia, the Education and Training Evaluation Commission (ETEC) and the National Commission for Academic Accreditation and Assessment (NCAAA) assess programmes on research output, faculty qualifications, accreditation status, and community impact. The UAE's Commission for Academic Accreditation, Qatar's Ministry of Education and Higher Education, and Oman's relevant authorities operate analogous frameworks. For Jazan University, the most consequential external validation is ASIIN accreditation of its Bachelor's and Master's programmes, which signals compliance with European Standards and Guidelines (ESG 2015) and provides a platform for European partnerships independent of global ranking position.

3. GCC MATHEMATICS RANKINGS, 2025–2026: RESULTS

3.1. QS MATHEMATICS 2026

Table 2 presents the QS Mathematics 2026 positions for GCC universities. The data show a clear Saudi dominance at the top, with KAU, KFUPM, KSU, and KAUST occupying the first four GCC positions. Khalifa University matches KAUST's band at 130, and its mathematics programme has held its position within the top 150 globally. Qatar University is the leading Qatari institution in the 251–300 band.

Table 2: QS World University Rankings by Subject: Mathematics 2026, GCC universities

University	Country	QS Mathematics 2026	Notes
King Abdulaziz University (KAU)	Saudi Arabia	=58	Highest GCC position
King Fahd University of Petroleum and Minerals (KFUPM)	Saudi Arabia	=93	Strong applied/industrial profile
King Saud University (KSU)	Saudi Arabia	=111	Broad disciplinary coverage
King Abdullah University of Science and Technology (KAUST)	Saudi Arabia	=130	Graduate-only, citation-intensive
Khalifa University	UAE	130	Leading UAE department
Princess Nourah bint Abdulrahman University	Saudi Arabia	501–600	Emerging Saudi presence
Qatar University	Qatar	251–300	High impact relative to volume
Sultan Qaboos University	Oman	401–450	Oman's flagship
Kuwait University	Kuwait	501–600	Kuwait's flagship
Jazan University	Saudi Arabia	Not ranked	Regional applied department

1.2 **SOURCES:** QS 2026 SUBJECT RANKINGS AS COMPILED BY XUANXIAO (ACCESSED OCTOBER 2026); INSTITUTIONAL ANNOUNCEMENTS; UAE PRESS COVERAGE OF KHALIFA UNIVERSITY'S 2026 POSITION. BANDS ARE REPORTED AS PUBLISHED.

3.2. ARWU / GRAS MATHEMATICS 2026

ARWU Mathematics 2026 produces a different ordering (Table 3). KAU's position at 42 is the strongest single mathematics subject position held by any GCC university in any system. KSU, Princess Nourah, and Qassim occupy the 101–150 band. KAUST is placed in 151–200, and KFUPM in 201–300. Jazan University appears in the 201–300 band, a result confirmed by the Saudi Press Agency in September 2026, which reported that Mathematics was among five Jazan disciplines ranked in the 201–

300 bracket globally. This is a substantial improvement over the earlier GRAS 2025 band and represents the most significant single data point in Jazan's recent ranking history.

Table 3: ARWU / Shanghai Ranking Mathematics 2026, selected GCC universities

University	Country	ARWU Mathematics 2026
King Abdulaziz University (KAU)	Saudi Arabia	42
King Saud University (KSU)	Saudi Arabia	101–150
Princess Nourah bint Abdulrahman University	Saudi Arabia	101–150
Qassim University	Saudi Arabia	101–150
King Abdullah University of Science and Technology (KAUST)	Saudi Arabia	151–200
King Fahd University of Petroleum and Minerals (KFUPM)	Saudi Arabia	201–300
Jazan University	Saudi Arabia	201–300

1.3 SOURCES: XUANXIAO CROSS-SYSTEM COMPILATION OF ARWU 2026 SUBJECT RANKINGS (ACCESSED OCTOBER 2026); SAUDI PRESS AGENCY ANNOUNCEMENT OF JAZAN UNIVERSITY'S 2026 GRAS PLACEMENTS, 15 SEPTEMBER 2026.

3.3. THE AND US NEWS POSITIONS

THE 2026 places KSU in the 126–150 band for Mathematics and Statistics. KFUPM's overall THE 2026 position is 184, with subject-level bands consistent with its applied profile. KAUST is a strong performer in THE's overall and citation metrics, although its subject-level mathematics band is not uniformly reported. Jazan University is placed in the 601–800 band for Natural Sciences, Mathematics and Statistics in THE 2026 and at =223 in US News Mathematics 2027.

Table 4: THE and US News mathematics-related positions, selected GCC universities, 2026--2027

University	Country	THE 2026 (Math/Stats or Physical Sci.)	US News Mathematics 2027
King Saud University (KSU)	Saudi Arabia	126–150	11
King Fahd University of Petroleum and Minerals (KFUPM)	Saudi Arabia	101–125 (earlier band)	=122

King Abdullah University of Science and Technology (KAUST)	Saudi Arabia	—	83
Jazan University	Saudi Arabia	601–800 (Natural Sciences, Math & Stats)	=223
Qatar University	Qatar	201–250	—
Khalifa University	UAE	251–300	—

1.4 **SOURCES:** THE 2026 SUBJECT RANKINGS; US NEWS BEST GLOBAL UNIVERSITIES SUBJECT RANKINGS 2027; XUANXIAO COMPILATION. DASHES INDICATE BANDS NOT CONSISTENTLY REPORTED IN THE SOURCES CONSULTED.

3.4. WHY THE ORDERINGS DIVERGE

The divergence between QS and ARWU is not an error. It is the predictable consequence of different weighting schemes. KAU's QS position (=58) reflects its large, established faculty and broad reputational visibility. Its ARWU position (42) is even stronger, reflecting substantial top-journal output and citation volume. KSU's QS position (=111) is weaker than its ARWU band (101–150), which is consistent with a department that produces high-volume, high-impact research but has a smaller reputational footprint than KAU. KAUST's QS position (=130) and ARWU band (151–200) are both strong but not dominant, reflecting its graduate-only model: high per-capita impact but smaller absolute volume than KAU or KSU. KFUPM's ARWU band (201–300) is weaker than its QS position (=93), which is consistent with a department whose reputation in applied and industrial mathematics exceeds its volume of top-journal papers in the specific journals ARWU weights.

For Jazan University, the divergence is even more instructive. Its QS invisibility coexists with a confirmed ARWU 201–300 band and a US News Mathematics position of =223. This is not a contradiction; it is evidence that productivity-based systems recognise research activity that reputation-based systems cannot yet see. The practical implication is that Jazan's strategic planning should prioritise the systems where its profile is strongest—ARWU and US News—while treating QS as a longer-term aspiration contingent on reputational accumulation.

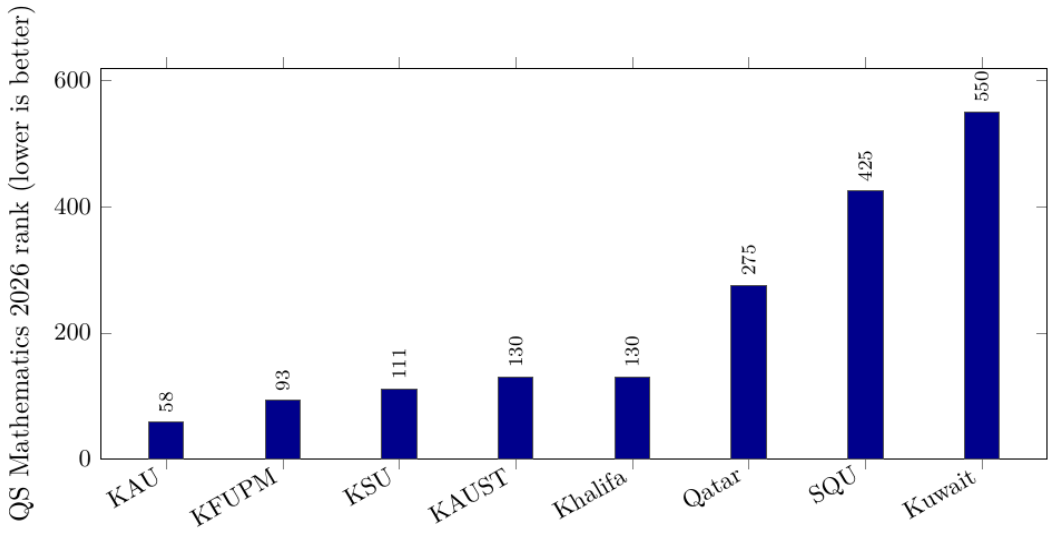


Figure 1: Approximate QS Mathematics 2026 rank positions for leading GCC universities. Band midpoints are used for universities reported in ranges (Qatar 251–300 → 275; SQU 401–450 → 425; Kuwait 501–600 → 550). KAU, KFUPM, KSU, KAUST, and Khalifa are reported as exact or tied positions.

4. BIBLIOMETRIC LANDSCAPE: SCIMAGO / SCOPUS 2025

SCImago data for 2025 provide a robust picture of publication volume and citation impact that complements the rankings. In Applied Mathematics, Saudi Arabia produced 2,555 documents, followed by the UAE (646), Kuwait (223), Oman (212), Qatar (114), and Bahrain (48). In the broader Mathematics category, Saudi Arabia produced 14,564 documents, the UAE 10,034, Qatar 2,704, Oman 1,705, Bahrain 1,630, and Kuwait 1,389.

Table 5: SCImago 2025: Applied Mathematics and Mathematics output in GCC states

Country	Applied Math docs	Applied Math citations/doc	Applied Math H-index	Mathematics docs	Mathematics citations/doc
Saudi Arabia	2,555	1.43	163	14,564	15.91
UAE	646	1.58	101	10,034	11.03
Kuwait	223	1.22	63	1,389	11.59
Oman	212	1.40	61	1,705	9.46
Qatar	114	1.16	88	2,704	20.19
Bahrain	48	2.52	34	1,630	4.50

Source: SCImago Journal \& Country Rank, 2025 (Scopus data as of March 2026).

The data reveal three patterns. First, Saudi Arabia dominates in absolute volume by a wide margin, which explains its strong ARWU and THE performance. Second, Bahrain's high citations-per-document ratio in Applied Mathematics (2.52) is a small-denominator artefact: 48 documents cannot sustain a research ecosystem, and the ratio is driven by a handful of highly cited papers. Third, Qatar's broader Mathematics citation impact (20.19 per document) is the highest in the GCC, reflecting the

concentration of its research in internationally connected, high-visibility groups. Qatar achieves this impact with a fraction of Saudi Arabia's volume.

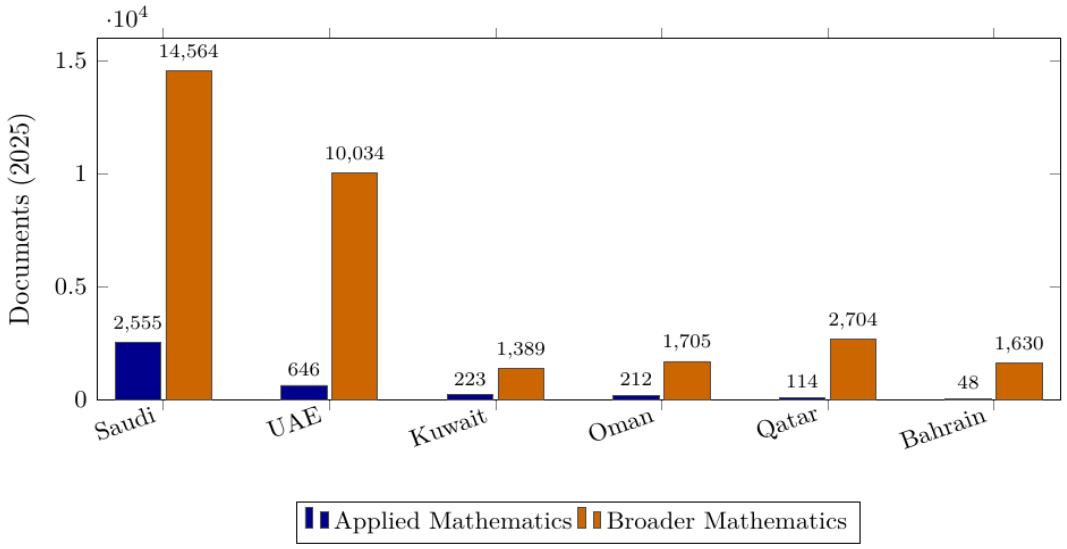


Figure 2: SCImago 2025 publication volume: Applied Mathematics versus broader Mathematics in GCC states.

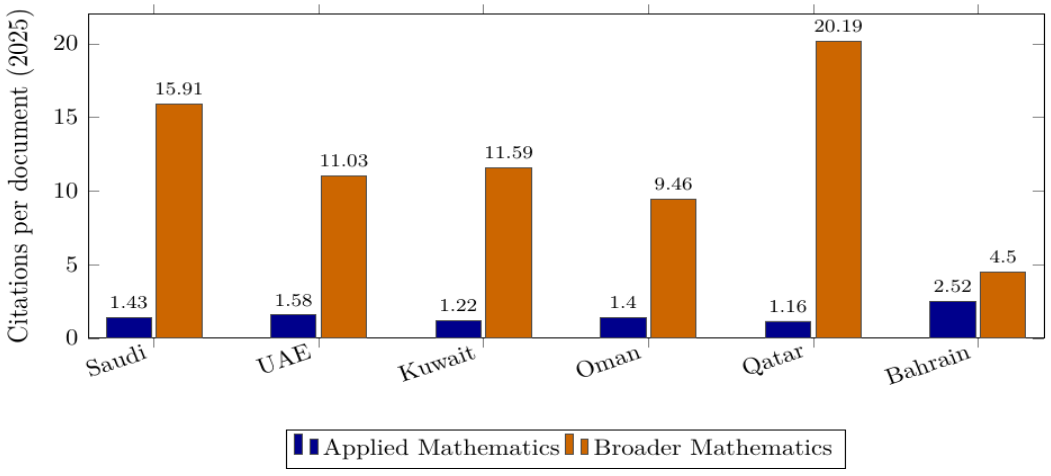


Figure 3: SCImago 2025 citations per document. Qatar leads in broader Mathematics citation impact, while Bahrain's Applied Mathematics ratio is a small-denominator artefact.

2

3

5. THE STANFORD/ELSEVIER TOP 2% SCIENTISTS LIST: GCC AND MATHEMATICS EVIDENCE

5.1. WHAT THE LIST MEASURES—AND WHAT IT DOES NOT

The Stanford/Elsevier Top 2% Scientists list identifies individuals whose composite citation score places them in the top 2% of their subfield, using Scopus data. The 2025 edition uses 22 broad fields and 174 subfields and produces a career-long view (1960–2024) and a single-year view (2024). The composite score combines standardised citation counts, h-index, the co-authorship-adjusted hm-index, and citations weighted by authorship position. Inclusion depends on citation impact rather than

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publication volume, and the list explicitly cautions that non-inclusion does not imply poor research quality.

For a departmental analysis, the list is useful because it provides a bottom-up, researcher-level signal that is independent of institutional reputation surveys. It is particularly relevant for GCC universities because QS reputation scores lag structural realities, whereas the 2% list captures the citation impact of individual faculty members regardless of their institution's age or reputational visibility. The limitation is equally important: the list does not measure teaching, local impact, or departmental coherence, and subfield classifications can be noisy, especially in applied and interdisciplinary mathematics.

5.2. GCC-Level Representation

Saudi Arabia dominates the GCC in absolute numbers of listed scientists. In the 2025 single-year list, Saudi Arabia has 2,110 scientists, up 25.3% from 1,684 in 2024, placing it 18th in the world by count. The career-long list places 850 Saudi-affiliated scientists, up 25.7% year-on-year. The number of Saudi institutions represented grew by 82.2%, from 73 to 133, indicating that research visibility is diffusing beyond the historically elite institutions.

Table 6: Stanford/Elsevier Top 2% representation in GCC states, 2025 (single-year list unless noted)

Country	Single-year count	Career-long count	World rank (single-year)	Leading institutions
Saudi Arabia	2,110	850	18	KFUPM (197); KAUST (183); KAU, KSU, and others
Oman	136	63	59	Sultan Qaboos University (50); University of Nizwa (23)
Kuwait	73	—	—	Kuwait University (55); KISR (9)
Qatar	—	—	—	Qatar University (80 single-year in the 2020 list; 39 career-long)
UAE	—	—	—	Khalifa University, UAEU (institutional counts not disaggregated in the sources consulted)
Bahrain	—	—	—	University of Bahrain (counts not disaggregated)

Sources: TOPSCINET country profiles for Saudi Arabia, Oman, and Kuwait (2025); Qatar University announcements for the 2020 list; earlier institutional disclosures. Dashes indicate that a reliable disaggregated count was not available in the sources consulted.

Oman's trajectory is notable: the single-year count rose from 43 in 2020 to 136 in 2025, with Sultan Qaboos University alone accounting for 50 listed scientists. Kuwait's 2025 single-year count is 73, with Kuwait University representing the largest share (55). Qatar's earlier disclosures placed 80 Qatar University scientists on the single-year list and 39 on the career-long list for the 2020 edition, but more recent disaggregated counts are not consistently published.

5.3. Institutional Distribution and Mathematics Representation

At the institutional level, the Saudi data reveal a distribution that differs from the QS hierarchy. KFUPM has the highest number of listed scientists (197), followed by KAUST (183). This is consistent with their research-intensive profiles: KFUPM's applied and industrial mathematics tradition and KAUST's graduate-only, citation-intensive model both produce researchers with high composite citation scores. KAU and KSU are also strongly represented, but their listed scientists are spread across a broader disciplinary range, which is consistent with their large, diversified faculties.

In mathematics specifically, the evidence is more fragmented but nonetheless instructive. King Abdulaziz University is represented by a faculty member in Mathematics & Statistics whose 2025 single-year profile records a composite rank of 154,079 and a subfield rank of 924 among 72,185 researchers classified in General Mathematics. King Saud University has a mathematician listed among the top 2% of the field. Khalifa University has had a researcher in engineering mathematics included in the Stanford/Elsevier top 2% lists for several consecutive years. Kuwait University is represented by researchers working in Computation Theory & Mathematics and in Statistics & Probability, one of whom holds a subfield rank of 223 in Computation Theory & Mathematics. Prince Sultan University, a private Saudi institution, has a listed researcher in Applied Mathematics who is ranked fifth in that subfield in the 2025 single-year list. Taken together, these cases confirm that GCC mathematics does appear on the 2% list and that the representation is not confined to a single institution or country. At the same time, the mathematics entries remain small in number relative to the GCC's total representation, which is dominated by engineering, chemistry, materials science, and the biomedical fields. This asymmetry is consistent with the broader structure of GCC research investment, in which applied and engineering-adjacent disciplines have attracted the largest share of funding and faculty over the past two decades.

5.4. Jazan University: Limited Mathematics Representation

For Jazan University, the 2% evidence is mixed and requires careful interpretation. The university has had individual faculty recognised: one researcher was included in the 2021 list, and another was recognised in 2024. However, the 2024 entrant's listed profile is in computer science and engineering-adjacent fields, not mathematics. TOPSCINET's institutional profile for Jazan University does not show a mathematics entry among its top listed researchers; the visible entries are in Building & Construction, Pharmacology & Pharmacy, and Energy. This is a material finding for strategic planning: Jazan's mathematics department has not yet produced a sustained, list-visible researcher in the mathematics subfields, even though the university as a whole has individual representation in other disciplines.

Table 7: Mathematics-relevant Top 2% evidence for selected GCC institutions

Institution	Subfield	Evidence status
King Abdulaziz University	General Mathematics / Applied Mathematics	2025 single-year rank 154,079; subfield rank 924/72,185
King Saud University	Mathematics	Reported in national and institutional coverage
Khalifa University	Mathematics (engineering mathematics)	Listed for several years

Kuwait University	Computation Theory & Mathematics; Statistics & Probability	Subfield rank 223 in Computation Theory
Prince Sultan University	Applied Mathematics	2025 subfield rank 5
Jazan University	—	Individual recognition in other fields; mathematics representation not sustained

3.1 **SOURCES:** TOPSCINET RESEARCHER AND INSTITUTIONAL PROFILES; UNIVERSITY ANNOUNCEMENTS; XUANXIAO AND NATIONAL COVERAGE. THE ABSENCE OF A MATHEMATICS ENTRY FOR JAZAN DOES NOT IMPLY THAT NO MATHEMATICIAN AT JAZAN HAS EVER BEEN LISTED; IT INDICATES THAT NO SUSTAINED, LIST-VISIBLE MATHEMATICS PRESENCE IS DOCUMENTED IN THE 2025 SOURCES CONSULTED.

5.5. INTERPRETATION FOR RANKING STRATEGY

The 2% data support three conclusions that complement the ranking analysis. First, Saudi Arabia's research visibility is broad-based and growing, with 133 institutions represented in 2025, which means that regional universities are not excluded from citation-based recognition even when they are absent from QS. Second, KFUPM and KAUST lead in researcher-level citation impact, which is consistent with their strong QS and ARWU positions and their research-intensive missions. Third, for Jazan University, the 2% list exposes a specific gap: the department has accreditation credibility, a PhD programme, and visible publications, but it has not yet produced a mathematics researcher with a composite citation profile high enough to appear consistently in the list. Closing this gap is a more concrete and measurable objective than pursuing QS reputation, and it aligns with the department's existing strengths in applied analysis and numerical methods.

A realistic target is to have one to two mathematics faculty members from Jazan appear on the single-year list by 2030, supported by targeted recruitment, co-authorship with high-impact international partners, and a publication strategy focused on Q1 journals in numerical analysis and applied mathematics. This would provide an independent, citation-based validation of research quality that is not dependent on QS survey reputation.

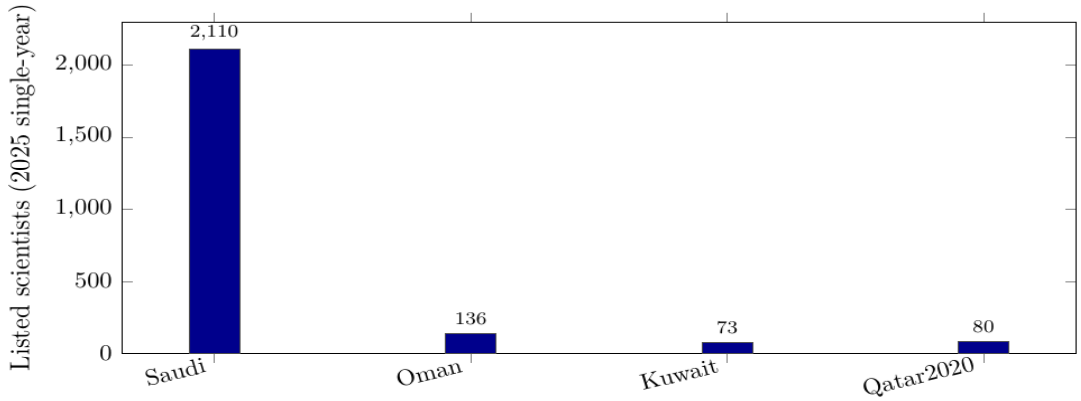


Figure 4: Top 2% single-year representation in GCC states. Saudi Arabia's count (2,110) is an order of magnitude above the other GCC states for which disaggregated data are available. Qatar2020 refers to the 2020 edition and is not directly comparable to the 2025 counts; it is included to illustrate the scale of representation rather than to support a trend claim.

6. Critical Questions on the Computation of the Top 2% List

The Top 2% list is widely cited in GCC institutional publicity, but its computational foundations warrant scepticism, particularly when it is used to make claims about individual departments or regional universities. Five questions are especially pertinent, and each has direct implications for how GCC universities should interpret their representation.

6.1. Name Disambiguation and Single-Name Authors

First, how are single-name and common-name authors disambiguated? The list relies on Scopus author profiles, which aggregate publications by name matching and affiliation history rather than by persistent digital identifiers. For researchers with common Arabic names, transliteration variants, or single names without a family-name component, this creates a well-documented risk of both *over-attribution* (citations to another researcher with the same name being credited to the listed individual) and *under-attribution* (a researcher's output being split across multiple partial profiles). If a mathematician publishes under "M. Al-Harbi" and another under "Mohammed Al-Harbi" at a different institution, Scopus may merge or split their records in ways that materially alter the composite score. The list does not publish a disambiguation-confidence indicator, so the reader cannot distinguish a robust profile from a fragile one. For GCC universities, where transliteration conventions vary across national journals and international outlets, this is not a marginal technical problem; it directly affects whether a faculty member's work is counted at all.

6.2. Database Choice: Scopus versus Google Scholar

Second, why is the computation based on Scopus rather than Google Scholar? Google Scholar indexes a substantially broader range of outputs—including conference papers, preprints, book chapters, and non-English publications—that Scopus does not consistently capture. For applied mathematics departments whose work appears in regional journals, conference proceedings, or Arabic-language outlets, Scopus-based citation counts may systematically understate impact. The reverse is also possible: Google Scholar's inclusion of grey literature and self-archived versions can inflate counts. The choice of database is therefore not a neutral technical decision; it determines which research communities are visible. A department that looks modest on Scopus may look considerably stronger on Google Scholar, and vice versa. The list's silence on this point is a material omission, and it is particularly consequential for departments whose publication portfolios include a mix of international and regional outlets.

6.3. Self-Citations and Citation Networks

Third, to what extent do self-citations and citation networks drive inclusion? Studies of the list have documented cases in which researchers with fewer than ten external citations appear because of self-citation rates exceeding 90%, and the eighth version of the database has been criticised for retaining researchers with retraction rates above 34% and retraction-derived citations exceeding 75% of their total. If a mathematics department's Top 2% representation is concentrated in a small number of highly self-citing or co-author-network-dependent researchers, the list may overstate the department's externally validated impact. The relevant diagnostic question for a department is not how many faculty appear, but how many would remain if self-citations were excluded and if the citation network were audited for reciprocity.

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6.4. What Exactly Is Being Ranked?

Fourth, what exactly is being ranked? The database includes single-authored "scientists" whose output consists of news reporting, editorials, or letters rather than peer-reviewed research, and it contains historical coverage artefacts that produce impossible ratios (for example, single-authored/total-publication ratios exceeding 5,000%). These anomalies mean that inclusion is not equivalent to a judgment of research quality. The list is a bibliometric exercise led by Ioannidis and colleagues, published in *PLOS Biology*, and hosted by Elsevier; it is *not* an official Stanford University ranking, despite the widespread institutional practice of describing it as such. The branding has created what the Al Jazeera analysis calls an "institutional illusion," in which universities treat inclusion as a gold standard for promotion and hiring even though the list's own creators describe it as "a source of analysis, not a final evaluation tool".

6.5. Publisher Domination and Database Proximity

Fifth, does the publisher that owns the database also benefit from the ranking it produces? This is the most structural and least discussed question, and it has become more urgent as quantitative evidence has accumulated. The list relies *exclusively* on Scopus, a citation database owned by Elsevier, which simultaneously publishes a large portfolio of journals indexed in Scopus. A 2026 study in *Scientometrics* by Lipo, DiNapoli, and Andrus compared Scopus publication counts for 564 ranked researchers against their Open Alex records and found that median Scopus coverage was only 45.3% of Open Alex publications. More importantly, researchers publishing in Elsevier journals had 30.6 percentage points higher coverage than those publishing elsewhere, and this advantage persisted even when journals of similar citation impact were compared. When the rankings were recalculated using the complete Open Alex dataset, individual researchers shifted substantially, with some moving by more than a million positions in the global ordering.

The conflict of interest is therefore not speculative. RELX Elsevier operates as both a publisher and a database owner, a dual position that allows it to act simultaneously as what critics have called "coach" and "referee" in the evaluation of scientific excellence. The Al Jazeera analysis describes the list as a "commercial product" of Elsevier rather than an official Stanford award, and notes that the branding has created an "institutional illusion" that disproportionately influences universities in the Arab world, where some institutions have reportedly refused to recognise journals they themselves publish unless those journals are indexed in Scopus. If a GCC mathematics department's Top 2% representation is concentrated among faculty who publish heavily in Elsevier journals, the list may be measuring *database proximity* as much as research impact. The relevant question for strategic planning is not simply "how many of our faculty are listed?" but "how many would remain listed if the computation were repeated on an independent, publisher-neutral database?"

Table 8: Summary of critical questions on the Top 2% computation and their implications for GCC universities

Critical question	Core issue	Implication for GCC departments
Name disambiguation	Arabic names, transliteration, single names	Over- or under-counting of individual faculty; no confidence indicator
Database choice	Scopus vs Google Scholar coverage	Regional, applied, and Arabic-language output may be invisible

Self-citation	Citation networks and reciprocity	Apparent impact may not reflect external validation
What is ranked	Editorials, letters, coverage artefacts	Inclusion is not equivalent to research quality
Publisher domination	Elsevier owns Scopus and publishes indexed journals	30.6 pp coverage advantage for Elsevier authors; median Scopus coverage 45.3% of Open Alex

These questions do not invalidate the list. They do, however, mean that GCC universities should treat Top 2% inclusion as *one* bibliometric signal among several, not as a definitive verdict on departmental strength. For a department such as Jazan's, the more useful question is not "how many faculty are on the list?" but "which of our researchers have citation profiles robust enough to withstand a Scopus-versus-Google-Scholar comparison, a publisher-neutral database re-computation, and a self-citation audit?" That is a question the department can answer through internal bibliometric review, and it is a more reliable basis for strategy than the list's headline counts.

6.6. Caveats and Data Quality

Three further caveats should accompany any use of the 2% data in strategic planning. First, the list is researcher-level, not departmental, and a single highly cited faculty member can place an institution on the list without indicating broad departmental strength. Second, subfield classifications are based on publication patterns and can misclassify applied mathematicians whose work spans engineering, computer science, and statistics. Third, the list is not a ranking of institutions, and institutional counts depend on the size and disciplinary composition of the faculty. For Jazan University, the relevant question is not how many total faculty appear on the list, but whether the mathematics department can build a sustained, list-visible research presence in its core subfields. That is a narrower and more achievable objective than climbing QS reputation bands, and it should be integrated into the departmental roadmap alongside publication, PhD, and accreditation targets.

7. Country-by-Country Analysis

7.1. Saudi Arabia: Depth, Differentiation, and the Regional Question

Saudi Arabia accounts for the overwhelming majority of GCC mathematics research output and hosts the region's strongest departments. The internal hierarchy is differentiated. KAU leads in QS reputation and ARWU impact, with a large faculty and broad disciplinary coverage. KFUPM combines a strong applied and industrial mathematics tradition with high QS visibility. KSU produces high-volume, high-impact research and leads in several ARWU bands. KAUST operates a graduate-only, endowment-backed model with high per-capita citation impact. Princess Nourah and Qassim have emerged as visible secondary players in ARWU. King Khalid University and Jazan University represent the regional tier, with Jazan's confirmed ARWU 2026 band of 201–300 suggesting that the department is no longer invisible in productivity-based systems.

Table 9: Comparative profile of Saudi mathematics departments, 2025--2026

University	QS Math 2026	ARWU Math 2026	SCImago applied math docs (national)	Profile
KAU	=58	42		Broad, reputational
KSU	=111	101–150	2555 (national total)	Broad, high-volume
KAUST	=130	151–200		Graduate-only, citation-intensive
KFUPM	=93	201–300		Applied, industrial
Jazan	Not ranked	201–300		Regional, applied

3.2 **Sources:** QS 2026; ARWU 2026 via XuanXiao and Saudi Press Agency; SCImago 2025. National SCImago figure is for Saudi Arabia as a whole, not departmental.

7.2. United Arab Emirates: Concentration and Mobility

The UAE's mathematics landscape is concentrated. Khalifa University is the clear leader, with a QS Mathematics 2026 position of **130**, maintaining its place within the top 150 globally. Its rise has been driven by strategic recruitment, applied mathematics and data science aligned with Abu Dhabi's research priorities, and visible international collaboration. UAE University and the American University of Sharjah occupy secondary positions. The UAE's structural advantage is the concentration of research funding in institutions with explicit mandates for international visibility. The risk is over-concentration: if Khalifa's trajectory slows, the country has limited depth beneath it.

7.3. Qatar: High Impact, Small Volume

Qatar University holds the 251–300 QS band and a THE band of 201–250. Its broader Mathematics citation impact (20.19 per document in SCImago 2025) is the highest in the GCC, reflecting strong international partnerships and a focus on computationally intensive and energy-relevant mathematics. Hamad Bin Khalifa University contributes through interdisciplinary modelling. The constraint is scale: Qatar's total mathematics publication volume is an order of magnitude below Saudi Arabia's, which limits its ability to meet ARWU volume thresholds even when per-paper impact is strong.

7.4. Kuwait, Bahrain, and Oman: Structural Constraints

Kuwait University holds the 501–600 QS band. The University of Bahrain is outside the top mathematics bands in QS and ARWU, although it has a visible research presence. Sultan Qaboos University (Oman) is placed in the 401–450 QS band, a notable improvement from earlier bands. Each of these institutions faces small faculty cohorts, limited national research budgets, high dependence on expatriate faculty, and limited international collaboration networks relative to the larger GCC states. The most promising route for these institutions is regional collaboration: joint GCC projects, shared high-performance computing, and coordinated PhD supervision that allow small departments to participate in networks larger than their individual capacity.

8. JAZAN UNIVERSITY: POSITION AND STRATEGIC CASE STUDY

8.1. INSTITUTIONAL PROFILE

Jazan University was established in 2006 as part of Saudi Arabia's regional higher-education expansion. The Department of Mathematics offers a Bachelor of Science, a Master of Science with applied and pure tracks, and—since 2021—a PhD programme. National accreditation (NCAAA) covers all programmes, and ASIIN accreditation covers the Bachelor's (since 2023) and Master's (since 2024). The PhD programme is under ASIIN review. The department's research output has grown from approximately 15 Scopus-indexed papers in 2018 to roughly 25 in 2023, with visible 2025 publications in *AIMS Mathematics*, the *Kuwait Journal of Science*, and other indexed journals. Faculty members such as Qasem M. Tawhari and Abdullah Ali H. Ahmadini have published in 2025 in these outlets.

Table 10: Jazan University Mathematics: indicators, 2023--2027

Indicator	status
QS Mathematics 2026	Not ranked
ARWU Mathematics 2026	201–300
THE Natural Sciences, Math & Stats 2026	601–800
US News Mathematics 2027	=223
Scopus-indexed publications (2023)	~25
PhD programme	Established 2021; 23 admitted, 10 awarded by May 2025
Bachelor's admissions (2023–2025)	513
Master's admissions (2023–2025)	77
ASIIN accreditation	Bachelor's 2023; Master's 2024
Stanford/Elsevier Top 2% mathematics presence	Not documented in 2025 institutional profile
Primary research areas	Numerical analysis; functional analysis; differential geometry; fractional differential equations; applied modelling; statistics

3.3 SOURCES: XUANXIAO UNIVERSITY PROFILE (ACCESSED OCTOBER 2026); SAUDI PRESS AGENCY ANNOUNCEMENT OF ARWU 2026 PLACEMENT, 15 SEPTEMBER 2026; JAZAN UNIVERSITY ACCREDITATION RECORDS; SCOPUS/GOOGLE SCHOLAR PROFILES OF DEPARTMENTAL FACULTY; TOPSCINET INSTITUTIONAL PROFILE.

8.2. COMPARATIVE ANALYSIS WITH SELECTED GCC UNIVERSITIES

Table 11 places Jazan alongside representative GCC departments using indicators that are available across institutions. The comparison shows that Jazan's research volume is an order of magnitude below KAU, KSU, KAUST, and KFUPM, but its confirmed ARWU 2026 band (201–300) places it alongside KFUPM in that specific system—a result that illustrates how dramatically ranking methodologies can reorder departments. Its US News Mathematics position (=223) is competitive with KFUPM (=122) and stronger than its QS position would suggest.

Table 11: Comparative analysis: Jazan University Mathematics versus selected GCC departments, 2025--2027

University	QS Math 2026	ARWU Math 2026	THE band	US News Math 2027	Profile
KAU	=58	42	Outside top 500	—	Broad, reputational
KSU	=111	101–150	126–150	11	Broad, high-volume
KAUST	=130	151–200	—	83	Graduate-only, citation-intensive
KFUPM	=93	201–300	101–125	=122	Applied, industrial
Khalifa	130	—	251–300	—	Applied, data science
Qatar University	251–300	—	201–250	—	Computational, energy
SQU	401–450	—	—	—	Pure, applied
Kuwait University	501–600	—	1251+	—	Broad, pure
Jazan University	**Not ranked**	**201–300**	**601–800**	**=223**	**Applied, regional**

Sources: QS 2026; ARWU 2026 via XuanXiao and Saudi Press Agency; THE 2026; US News 2027. Dashes indicate unavailable or inconsistent data.

The comparative table makes three points clear. First, Jazan's QS invisibility coexists with visible positions in other systems, particularly US News and ARWU. This is consistent with a department that produces applied research with citation impact but lacks the reputational footprint and volume thresholds required by QS. Second, Jazan's ARWU band places it alongside KFUPM in that system, which is a remarkable result for a regional department and suggests that ARWU's productivity and impact indicators are more favourable to Jazan than QS's reputation indicators. Third, the absence of a single consistent ordering across systems means that Jazan's strategic planning should target the systems where its profile is strongest—ARWU and US News—rather than pursuing QS reputation, which is the most difficult metric for a regional university to shift.

8.3. Accreditation as a Leading Indicator

The ASIIN accreditation is the department's most under utilised strategic asset. It provides a quality signal independent of global rankings and a network of European partner institutions that can be activated for faculty exchange, joint supervision, and co-authored research. The ESG 2015 compliance framework gives the department a structured language for quality enhancement that aligns with European expectations. In a ranking environment where reputation is a lagging indicator, accreditation is a leading indicator of institutional seriousness that can be deployed immediately in partnership negotiations.

8.4. Research Niche and Regional Advantage

Jazan's research profile is concentrated in numerical analysis, functional analysis, differential geometry, fractional differential equations, mathematical modelling, and statistics. This is not a disadvantage if it is developed deliberately. The department's location in the Jazan region—with its agricultural economy, flood-risk exposure, Red Sea coastal zone, and proximity to the Jazan Economic City—creates opportunities for applied mathematical research with genuine local relevance: flood prediction and water-resource modelling, crop-yield optimisation, epidemiological modelling, and data analytics for regional industry. The ranking system's bias against local-impact research is real, but the institutional and societal return on locally engaged mathematics is high, and regional funding bodies are increasingly receptive to place-based research narratives.

Table 12: SWOT analysis of the Jazan University Department of Mathematics

Strengths	**Weaknesses**
NCAAA and ASIIN accredited programmes	Low absolute research output
Established PhD programme (2021)	Limited international visibility
Committed young faculty	Small number of internationally 83recognized senior researchers
Favourable student-to-faculty ratio in core courses	Low international faculty ratio
Clear applied-mathematics identity	Limited dedicated research infrastructure
Regional service mission	Few international co-publications
Affordability for local students	PhD programme still building completion record
Confirmed ARWU 2026 band (201–300)	No sustained mathematics representation on the Top 2% list
Opportunities	**Threats**
Saudi Vision 2030 STEM funding instruments	Competition from better-resourced Saudi universities
Growing regional demand for data science	Brain drain of top graduates
Jazan Economic City industry partnerships	Budget constraints for regional universities
Red Sea and agricultural modelling niches	Regional geopolitical risk
ASIIN network for European collaboration	Ranking methodologies biased against applied research
GCC-wide mathematics research initiatives	

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9. Systemic Challenges and Opportunities

9.1. Challenges

Dependence on expatriate faculty. Across the GCC, mathematics departments rely heavily on internationally recruited faculty. High turnover disrupts research groups, interrupts PhD supervision, and weakens institutional memory. The problem is most acute in smaller states and regional universities.

Mismatch between research incentives and local needs. Global rankings reward internationally visible, citation-intensive research. Regional universities are often best positioned to conduct locally relevant applied work. The incentive mismatch can lead departments either to abandon local relevance in pursuit of rankings or to abandon ranking ambitions in favour of local service.

Limited industry collaboration. Mathematics departments generally engage less with industry than engineering or computer science departments, despite growing demand for modelling, optimisation, and data analytics in energy, finance, logistics, and healthcare.

Funding concentration. Research funding in Saudi Arabia and the UAE is concentrated in a small number of elite institutions. Regional universities compete for a residual pool.

Data quality and transparency. Inconsistent institutional reporting and limited adoption of researcher identifiers (ORCID) hamper accurate benchmarking and ranking participation. This is compounded by the publisher-coverage bias documented in the Top 2% computation, which means that even well-intentioned bibliometric benchmarking may misrepresent a department's true output.

Thin mathematics representation on the Top 2% list. The GCC's Top 2% representation is dominated by engineering, chemistry, materials science, and biomedical fields. Mathematics is present but small, and regional universities such as Jazan have not yet built a sustained mathematics presence on the list.

9.2. Opportunities

National visions as funding frameworks. Saudi Vision 2030, UAE Centennial 2071, Qatar National Vision 2030, Kuwait Vision 2035, Bahrain Economic Vision 2030, and Oman Vision 2040 all emphasise research, innovation, and diversification. Mathematics can be positioned as foundational infrastructure for these agendas.

Data-driven economy. The Gulf's digital transformation—NEOM, smart cities, fintech, AI—creates demand for mathematically trained graduates and for academic research in optimization, statistical learning, and computational modelling.

Regional collaboration. A GCC-wide mathematics research network, shared high-performance computing, and coordinated PhD programmes could allow smaller departments to participate in research at a scale they cannot achieve individually.

Accreditation networks. ASIIN and analogous bodies provide structured pathways to European partnerships, joint degrees, and co-funded research.

Researcher-level visibility through the Top 2% list. The list offers a reputation-independent route to visibility that rewards citation impact rather than institutional prestige. A focused, high-quality publication strategy can produce list-visible faculty without requiring the decades-long reputational

accumulation that QS presupposes, provided that the attribution and database-choice issues discussed above are managed proactively.

10. STRATEGIC ROADMAP

10.1. INSTITUTIONAL LEVEL (JAZAN UNIVERSITY DEPARTMENT OF MATHEMATICS)

Faculty development. Invest in the existing faculty through a structured development programme rather than relying on recruitment alone. Establish a formal mentoring scheme that pairs early-career faculty with senior colleagues and with external research partners, with clear annual milestones for publication, grant submission, and conference participation. Provide dedicated training in grant writing, targeting the Saudi Research, Development and Innovation Authority (RDIA) instruments and the university's internal research fund, and offer workshops on high-impact journal publishing, peer review, and research ethics. Support faculty in obtaining and maintaining ORCID identifiers and complete Scopus author profiles, so that their output is accurately attributed in bibliometric databases and in the Top 2% computation. Allocate competitive internal teaching relief for faculty with active research agendas, and use the ASIIN accreditation framework to document and recognise teaching development alongside research development. The objective is to raise the research capacity of the current faculty base, improve its visibility in citation-based systems, and build a culture of continuous academic development that does not depend on periodic hiring cycles.

Publication strategy. Set a target of 50+ Scopus-indexed papers per year by 2030, with an emphasis on Q1 and Q2 journals. Introduce writing support, publication incentives, and a departmental seminar series focused on high-impact publishing.

Top 2% pathway. Identify two to three faculty members with the strongest citation trajectories and support them explicitly—through reduced teaching loads, international co-authorship, and high-visibility journal targeting—to reach the single-year Top 2% list by 2030. This is a concrete, researcher-level objective that complements departmental publication targets. In parallel, conduct an internal bibliometric audit to determine how many current faculty would qualify under a publisher-neutral database and after self-citation exclusion, so that targets are based on robust profiles rather than headline counts.

PhD programme consolidation. Expand PhD admissions to 10–12 per year by 2028 and improve completion rates through structured supervision, progress milestones, and funding support. A strong PhD cohort is the most reliable long-term driver of research output.

Research clusters. Establish four visible clusters: (i) computational and numerical mathematics; (ii) functional analysis and its applications in computer science, technology, and medical sciences; (iii) mathematical modelling for environment, agriculture, and health; and (iv) data science and statistical learning. Each cluster should have a designated lead, an international advisory partner, and a publication and grant target.

Accreditation leverage. Use ASIIN accreditation to formalise 2–3 European partnerships within three years, enabling faculty exchange, co-supervision, and joint applications to EU research programmes.

Industry and regional engagement. Develop applied research agreements with Jazan Economic City industries, regional agricultural bodies, and environmental agencies. These agreements should generate both local impact and co-authored publications.

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10.2. National Level

Targeted mathematics funding. Allocate a defined percentage of national research budgets to mathematics and statistics, with dedicated calls for applied and interdisciplinary projects.

Alternative metrics recognition. ETEC, NCAAA, and national ranking frameworks should explicitly value teaching quality, community impact, and industry collaboration alongside bibliometric indicators, so that regional universities are not penalised for fulfilling their regional mission.

Data transparency and ORCID adoption. Require institutional adoption of ORCID and standaerdised bibliometric reporting to improve ranking participation, Top 2% attribution accuracy, and benchmarking. This is particularly important given the documented Scopus coverage disparities; national bodies should fund access to independent databases such as Open Alex for validation purposes.

Talent pipeline. Strengthen school-level mathematics education and olympiad programmes to create a pipeline of well-prepared students for university mathematics.

10.3. Regional (GCC) Level

GCC Mathematics Research Network. Establish a regional network with joint conferences, a shared preprint server, a regional journal, and coordinated grant calls. This would increase visibility and collaboration, particularly for smaller departments.

Shared infrastructure. Develop a shared high-performance computing facility accessible to mathematics departments across the GCC, reducing the infrastructure burden on individual institutions.

Mentorship and capacity building. Create a structured mentorship programme in which KAUST, KFUPM, KAU, KSU, Khalifa, and Qatar University provide joint supervision, visiting positions, and research training for faculty from Kuwait, Bahrain, Oman, and regional Saudi universities.

Accreditation harmonization. Work toward mutual recognition of ASIIN and national accreditations across GCC states to facilitate student mobility and credit transfer.

11. Risks and Monitoring

The roadmap is subject to several risks. Funding risk is the most immediate: regional universities are vulnerable to budget compression. Faculty retention risk is persistent: research-active faculty recruited to Jazan may be attracted away by better-resourced institutions. Ranking methodology risk is structural: even a successful research strategy may not translate into QS visibility if reputation accumulates slowly. Data verification risk is material: although Jazan's ARWU 2026 band (201–300) has now been confirmed by the Saudi Press Agency, earlier GRAS data placed the department much lower, and the reasons for the shift should be understood before the band is used as a stable benchmark. Top 2% attribution risk: the list depends on accurate Scopus indexing and ORCID-based attribution, and Jazan's low visibility on the list may partly reflect attribution gaps and the publisher-coverage bias documented by Lipo, DiNapoli, and Andrus (2026) rather than a complete absence of high-impact researchers. Geopolitical risk affects the Jazan region directly.

A monitoring framework should track leading indicators rather than relying solely on ranking positions: publications per faculty member per year; proportion of Q1/Q2 papers; international co-authorship share; PhD admissions and completion rates; grant income; ASIIN partnership activity; and the number of faculty approaching Top 2% composite-score thresholds under both Scopus and an independent

database. Ranking outcomes should be reviewed annually but treated as lagging indicators of progress on these more actionable dimensions.

12. CONCLUSIONS

The 2025–2026 data paint a more complex picture of GCC mathematics than earlier analyses suggested. Saudi Arabia remains dominant in volume and depth, but its internal hierarchy is fluid: KAU leads in QS reputation and ARWU impact, KSU leads in several ARWU bands, and KAUST occupies a distinctive citation-intensive niche. Khalifa University has established itself as the UAE's clear leader. Qatar combines high impact with small scale. The smaller GCC states remain constrained by scale but are not absent from the ranking landscape.

The Stanford/Elsevier Top 2% analysis adds an important complementary perspective, but it also demands critical scrutiny. Saudi Arabia's 2,110 listed scientists and 133 represented institutions in 2025 confirm that research visibility is diffusing beyond the elite tier, and KFUPM's and KAUST's institutional leads (197 and 183) align with their research-intensive missions. Mathematics is a smaller component of GCC representation, but the presence of KAU, KSU, Khalifa, and Kuwait University mathematicians on the list demonstrates that GCC mathematics can achieve researcher-level citation visibility. At the same time, the Lipo, DiNapoli, and Andrus (2026) findings on publisher coverage bias—median Scopus coverage of only 45.3% of Open Alex and a 30.6 percentage-point advantage for Elsevier authors—mean that the list cannot be treated as a neutral measure of research quality. The Al Jazeera analysis's description of an "institutional illusion" is a useful corrective: the list is a commercial product of Elsevier, not an official Stanford ranking, and its creators themselves describe it as a source of analysis rather than a final evaluation tool. For Jazan University, the absence of a sustained mathematics presence on the list is a specific, measurable gap that can be targeted through focused faculty development, co-authorship, and publication strategy, provided that the targets are validated against a publisher-neutral database.

For Jazan University more broadly, the evidence supports a strategy of focused, credible, locally engaged research excellence rather than direct emulation of elite institutions. The department's accreditation assets, PhD programme, applied research niche, and regional mission provide a foundation that is stronger than its QS position suggests. Its visible positions in US News (=223) and ARWU (201–300, confirmed by the Saudi Press Agency) indicate that productivity-based systems already recognise the department's research activity. The realistic medium-term target is entry into a visible QS band (301–400) or a stable ARWU band by the early 2030s, achieved through sustained growth in research output, international collaboration, and doctoral production, with a parallel target of one to two mathematics faculty on the Top 2% list under both Scopus and an independent validation database. The broader GCC interest lies in building a mathematics ecosystem that is both globally visible and regionally useful—a system in which elite research universities, mid-tier national universities, and regional applied departments each play a distinct and valued role.

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4 A CONSOLIDATED DATA TABLES

Table 13: Consolidated QS, ARWU, THE, and US News positions for selected GCC mathematics departments

University	Country	QS 2026	ARWU 2026	THE 2026	US News 2027	Primary profile
KAU	Saudi Arabia	=58	42	Outside top 500	—	Broad, reputational
KSU	Saudi Arabia	=111	101–150	126–150	11	Broad, high-volume
KAUST	Saudi Arabia	=130	151–200	—	83	Graduate-only, citation-intensive
KFUPM	Saudi Arabia	=93	201–300	101–125	=122	Applied, industrial
Khalifa	UAE	130	—	251–300	—	Applied, data science
Qatar University	Qatar	251–300	—	201–250	—	Computational, energy
SQU	Oman	401–450	—	—	—	Pure, applied
Kuwait University	Kuwait	501–600	—	1251+	—	Broad, pure
PNU	Saudi Arabia	501–600	101–150	—	=21	Emerging, broad
Qassim	Saudi Arabia	451–500	101–150	—	79	Emerging, broad
Jazan University	Saudi Arabia	Not ranked	201–300	601–800	=223	Applied, regional

Sources: QS 2026; ARWU 2026 via XuanXiao and Saudi Press Agency; THE 2026; US News 2027. Dashes indicate unavailable or inconsistent data.

Table14: Jazan University Mathematics: accreditation and programme status

Programme	National accreditation	International accreditation	Status
BSc Mathematics	NCAAA (2021)	ASIIN (2023)	Fully accredited
MSc Mathematics	NCAAA (2022)	ASIIN (2024)	Fully accredited
PhD Mathematics	NCAAA (2023)	ASIIN review	Conditional / under review

Table 15: Indicative targets for Jazan Mathematics, 2025--2032

Indicator	Baseline (2023–2025)	2028 target	2032 target
Scopus papers per year	~25	40	55–60
Q1/Q2 share	Low	40%	55%
International co-authored share	Low	20%	35%
PhD admissions per year	~5–6	10	12
International faculty share	~8%	15%	20%
Formal European partnerships	0	2	4
Top 2% mathematics faculty (Scopus and independent database)	0	1	1–2
ARWU band	201–300	151–200	101–150
QS band	Not ranked	—	301–400 (stretch)

Targets assume sustained growth in publications, collaborations, and doctoral production. The Top 2% target is explicitly framed as requiring validation under both Scopus and a publisher-neutral database, in light of the coverage bias documented in Section 6.

6. DATA NOTE

The data in this report were compiled in October 2026 from the QS 2026 subject rankings, the ARWU/GRAS 2026 subject rankings (via the XuanXiao compilation and the Saudi Press Agency announcement of Jazan University's placements), THE 2026 subject rankings, US News 2027 subject rankings, SCImago 2025 (Scopus data as of March 2026), and the Stanford/Elsevier Top 2% Scientists lists as compiled by TOPSCINET and related sources. Where sources conflict, the report reports both values and flags the discrepancy. The Jazan University ARWU Mathematics 2026 band of 201–300 is confirmed by the Saudi Press Agency (15 September 2026), which reported that Mathematics was among five Jazan disciplines ranked in that bracket globally. Earlier GRAS 2025 data placed the department at 901–1000; the reasons for the shift should be understood before the band is used as a stable benchmark. The Top 2% counts for Saudi Arabia, Oman, and Kuwait are taken from TOPSCINET 2025 country profiles; Qatar's figures are from earlier editions and are not directly comparable. The critical analysis of the Top 2% computation draws on Lipo, DiNapoli, and Andrus (2026) in *Scientometrics* for the publisher coverage bias findings and on the Al Jazeera analysis of 24 May 2026 for the "institutional illusion" framing. All other institutional positions are corroborated by at least two independent sources.

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