

**REPORT OF THE ACADEMIC AUDIT COMMITTEE OF
MAR THOMA COLLEGE, TIRUVALLA, KERALA
FOR THE YEARS 2020-21 & 2021-22**

(Held on 25th March, 2022)

I. Introduction

Mar Thoma College, Tiruvalla, established in 1952 is affiliated to Mahatma Gandhi University, Kottayam, Kerala and offers UG and PG programmes in Arts, Science and Commerce. The UG programmes: B.A., in English, Economics, History and Political Science under the Arts faculty; B.Sc., in Mathematics, Physics, Chemistry, Botany Model I and Model II and Zoology under the Science faculty and B.Com. Model I and Model II, under the Commerce faculty and the PG programmes: M.A., in English and Economics under Arts faculty and M.Sc., in Mathematics, Physics, Pure Chemistry and Analytical Chemistry, Botany and Zoology under the Science faculty are Government aided. MSc. in Microbiology and Biotechnology and MSc Data Analytics are offered in the unaided stream. All the eight PG departments are approved research centres of the M.G. University and offer 10 programmes. Malayalam and Hindi Departments are offering courses in second languages and Department of Statistics offers Statistics as an ancillary subject. Physical Education Department offers an open course in Physical health and Life skills Education along with all other UG departments. The College was accredited by NAAC with A Grade (CGPA 3.09) in the fourth cycle of Assessment and Accreditation during 2019. The College has constituted a Committee with Dr. Rajan Varughese, former Principal, Union Christian College, Aluva and Dr. Shaju M J (Department of Economics), Baselius College, Kottayam to conduct the academic audit of Mar Thoma College covering 2 academic years: 2020-21 and 2021-22. The Committee was requested to conduct an academic audit of the College covering 2020-21 and 2021-22. The Committee visited the College on 25th March, 2022 for interactions with the faculty, staff of administrative office, the Internal Quality Assurance Cell (IQAC) and Principal. The overall feedback of the audit Committee was shared with all the faculty members in the Exit meeting.

Mar Thoma College, Tiruvalla has made quality in education as a priority and is the first college in Kerala to undergo the assessment and accreditation by NAAC. It has undergone the second, third and fourth cycles of assessment and accreditation with consistent A Grade status. The Principal and College Council has undertaken steps and procedures during the period of academic audit for accountability and responsibility of all constituents and stakeholders.

The Purpose of Assessment and Academic Audit:

The College perceives academic audit as means to identify its strengths and weaknesses as seen through the eyes of external experts so as to encourage the College to take necessary steps for its improvement of quality in various key indicators of quality parameters. The assessment, suggestions and opinions serve as pointers in the direction of growth and help the College to set its own targets in the pursuit of quality.

Audit Process:

The Committee reviewed the following practices during 2020-21 and 2021-22 and evaluative observations are marked against each aspect:

- (1) Students, Faculty, Staff
- (2) Curriculum and Courses
- (3) Teaching - Pedagogy of teaching-methodology
- (4) Learning – Learner centric approaches
- (5) Evaluation and assessments
- (6) Research Activities
- (7) Social Responsibilities
- (8) Infrastructure
- (9) Library and ICT resources
- (10) Student Support Initiatives
- (11) Management and Leadership
- (12) Institutional focus on Green Initiatives

Audit Summary

Mar Thoma College, Tiruvalla has 1339 students in 2020-2021 in the 12 UG programmes in 10 Departments; 328 students in 10 PG programmes in 8 Departments, and 61 research scholars in 7 approved research centres of the affiliating University. It has 70 teachers including Principal and 37 non-teaching staff. Number of NET qualified teachers is 34; Ph.D. degree holders 33; M.Phil degree holders 7, additional PG degree holders 9 and teachers having other additional qualifications 22.

In 2021-2022 the college had 1308 students in 12 UG programmes in 10 Departments; 351 students in 11 PG programmes in 8 Departments, and 74 research scholars in 7 approved research centres of the affiliating University. It has 68 teachers including Principal and 37 non-teaching staff. Number of NET qualified teachers is 34; Ph.D. degree holders 33; M.Phil degree holders 7, additional PG degree holders 9 and teachers having other additional qualifications 22.

Internal Quality Assurance Cell (IQAC) is active and has initiated number of steps for quality enhancement in teaching-learning and research using combination of online and off line modes during the pandemic period.

Audit Observations

Overall Assessment of Performance:

- (1) Students, Faculty, Staff and Management: The profile of most students at entry level to UG and PG programmes is good as admissions are based on the Centralized Allotment Process (CAP) of the University. A good number of students are first generation college goers in the family and lack academic guidance from parents. The College has adequate, well-qualified, competent faculty as per UGC, University and Government norms. Teachers are committed to their vocation and contribute to the overall growth and development of students. More number of online/offline sessions for teachers on subjects and teaching pedagogy desirable. Administrative staff needs to be provided with training/familiarisation sessions in the use of technology supported services including mobile applications to students and parents. 3 Faculty members are in BoS during 2020-2021, 3 Faculty members

are in BoS during 2021-2022 and 4 faculty were members of the syllabus restructuring committees of the affiliating University.

- (2) Curriculum and Courses: The College is affiliated to M. G. University which provides necessary directions and input in terms of Courses and curricula. BoS and Academic Council and statutory bodies of the affiliating University provides guidance and rules and regulations. Feedback on Curriculum to be collected, analyzed and recommendations of Departments for action to be taken by presenting in statutory bodies of the College. Outcome of Feedback analysis to be used to identify and offer Certificate/Add-on programmes to benefit the students. The number of Add-on/Certificate programmes is 6(2020-2021) and 5(2021-2022) and is being offered in 8 Departments.
- (3) Teaching - Pedagogy of teaching-methodology: Teachers prepare lesson plan, maintain Teacher's Diary showing schedule of teaching, conduct tests, organize seminars and evaluate assignments. Time table is set at the beginning of each academic year. Balanced use of online and offline methods of teaching adopted during the pandemic period. Laboratories with technologically advanced equipment and accessories, and computer laboratories are available for experiential learning. Student evaluation of teachers practiced for timely feedback on teaching-learning and evaluation.
- (4) Learning – Learner centric approaches: Systems including Entry level test for identification of advanced and slow learners through continuous monitoring is in place. Remedial coaching could not be implemented during 2020-21 and 2021-22 in all the departments during the pandemic period. All Departments need to give more attention on Remedial programmes and strengthen documentation such as attendance of participating students, engagement by assigned teachers, schemes of sessions taken and evaluation and follow up sessions. Records of assignments and tasks for advanced learners to be maintained by all departments. The College had commendable number of academic online conferences/seminars/activities by most departments with limitations of pandemic period.
- (5) Evaluation and assessments: Assessment and evaluation is as per the M.G. University directions and norms. Continuous assessment through internal evaluation of tests, seminars, assignments, and university examinations and systems to monitor progress of students. Good pass percentage at UG level in all departments, except Zoology, Economics and Political Science. Commendable academic achievements in terms of University ranks in political science, English, Vocational Botany departments observed. All departments carry out result analysis and take up the needed follow-up action. Uniform practice through software for result analysis for all departments of the College along with laid down norms for steps to be undertaken may be considered. Follow up action of Result Analysis and action to be documented and considered in Department meetings of faculty members.
- (6) Research – Academic Research and Research Projects and Publications: Departments of Chemistry, Botany, Mathematics, Physics, Zoology, Economics, & English are research centres of the affiliating M. G. University. 11 members of the current faculty, 5 members of retired faculty & 12 external members are approved research guides of the affiliating University, guiding 49 research students. 6 external research guides supervises 12 research scholars. 32 faculty members have Ph.D., degrees and 13 are involved in research work leading to Ph.D. It has successfully completed 2 major research projects and 2 ongoing minor & 1 ongoing major research projects are in different stages. It organized 173 online seminars and academic conferences during 2020-21 and 2021-22 with focus on capacity

building in research. Faculty published 24 research papers during 2020-2021 and 21 research paper during 2021-2022 in Research Journals listed in UGC CARE/recognized Research Portals, 15 articles in refereed journals, and papers in Conference Proceedings, Faculty made 36 in 2020-2021 and 5 in 2021-2022 paper presentations in Conferences, published 7 books, and contributed to chapters in 13 edited books. Research Grants amounting Rs. 66 lakhs received for 2 major research projects and Rs. 21 laks for 01 minor research project during the audit period. The publication of Multi-disciplinary print & online Research Journal ISSN No: 2319-5770 & e-ISSN No: 2394-1138 2019-2020 was discontinued during the audit period and needs to be published periodically. Preparation of a bank of project proposals from all the departments and implementation of the projects may be considered for maintaining active research culture in the College. Online/Offline academic sessions of higher dimensions to be taken up by all departments in the post pandemic period.

- (7) Social Responsibilities - Extension and Outreach Activities: Good number of Extension activities is taken up by the N.S.S. and N.C.C. units. Only traditional and nominal work through NSS and NCC is documented. Innovative academic extension activities need to be initiated and strengthened. The N.C.C. Officer received the Best Officer Award by the University and 3 other awards during audit period.
- (8) Infrastructure and Academic Environment: The College has adequate land and quality infrastructure facilities in a beautiful campus of 19 acres. It has 62 classrooms, 2 conference halls, 28-laboratories, and 13 ICT enabled classrooms. Construction of classroom and laboratory block is nearing completion. Infrastructure augmentation and up gradation to be continued based on the assessment of requirements. Office for Controller of Examination to be established with necessary technology support decentralize the evaluation process of the College
- (9) Library and ICT resources: Procured books & journals worth over 85213 & 19285 during 2020-21 and 2021-22. The College has 167 computers in 25 computer laboratories and has 10 computers in various Departments and 14 computers in Administrative office. It has 13 36 LCD projectors in major class rooms and 7 smart boards in other classrooms. The College has SPARK, BiMS, PRISM, (GAINPF, EGRANTZ 3.0, DCE SCHOLARSHIP, LIBOSOFT, TCS (Total Campus Solutions), list of licensed software) and Tally Accounting package for the software solutions used for academic and administrative purposes. College has institutionalized documentation and is maintained. It has the commendable practice of centrally documented Video clips of classes/seminars/invited lectures Use of Digital technology as part of ERP solution needs to be further strengthened. Systematic and uniform procedures to be followed by individual teachers in all the departments (evaluation, field visits, internships, projects, assignments, etc.) with the support of software solutions. DST-FIST laboratories, and Inter-Disciplinary research laboratory are available. The functioning of E-learning platform needs to be further enhanced. ICT infrastructure needs tremendous upgrading and strengthening for the use of web resources.
- (10) Student Support Initiatives: Entry Level test administered in 11 Departments, remedial courses organized in all 11 departments offering academic programmes. The figures of student progression shows 03 JRF, 3 NET, 5 SET , 3 JAM and 02 GATE qualified students during the audit period. Placement records needs to be centrally maintained and streamlined. 8 Departments organized programmes to provide guidance to students on higher studies and all 11 Departments organize Mentor programme. All 13 Departments have subject associations along with clubs such as Brains Trust.

3 Departments offered Placement assistance to students. Recording and maintenance of student progression needs to be strengthened in most departments by adopting suitable measures such as exit/feedback surveys. Remedial classes for slow learners need to be focused based on the outcome of Entry Level tests during the post pandemic period. Records and follow up action of remedial programmes to be strengthened and maintained by all departments. Entry level tests needs to be documented and improved for better remedial sessions, assessment of slow learners and assignments for advanced learners. Impact of pandemic needs to be overcome by suitable centrally evolved offline/online methods for the conduct of PTA meetings and open house review sessions. Review of Mentoring System and strengthening of the System through maintenance of records may be considered. Documentation of issues resolved through Mentor system needs to be strengthened

(11) Management and Leadership: The Manager, Principal, Bursar and Governing Council give leadership for the growth of the College. There is good co-ordination of Principal, Vice Principals, IQAC Coordinator, and Heads of Departments, teaching and non-teaching staff, students, parents and alumni. It follows democratic and participative approach in its management through the College Council, Department meetings, teachers, non-teaching staff, IQAC and the Students' Union, the Management and a good number of committees which take necessary actions to implement the decisions to obtain the desired output. Alumni contribution during the audit period is Rs. 4.45 lakhs. It collects and analyzes feedback for review of teaching and takes necessary follow up actions. The use of financial resources is strictly monitored through internal audits as well as government audits. The College needs rigorous planning and preparation on curriculum designing, and evaluation in view of awarding autonomy and faculty members may visit successful autonomous institutions in neighbouring states to equip the College. Teachers and administrative staff need to be oriented for academic autonomy.

(12) Institutional focus on Green Initiatives

Suggestions and Recommendations:

A. Curriculum Development and Teaching-learning

- Starting of number of Add-on/Certificate programmes to facilitate skill enhancement and employability of students
- Equipping and empowering faculty members in curriculum design, course development and innovative evaluation process

B. Research

- Research culture needs to be evolved and strengthened through a wide range of research activities by faculty and students in all the teaching and research departments
- Augmenting infrastructural and technology resources for promotion of research and mobilizing more research grants from Government and Non Government Agencies (Gas and NGAs)

C. Infrastructure for Learning and Research

- Providing more number of quality infrastructure and technology solutions for promotion of quality teaching, learning and research

D. Student Support Measures

- Enhancing of placement services and career counseling

E. Governance and Leadership

- Providing facelift to the existing infrastructure with quality up gradation and improving front elevation of the buildings with aesthetic architectural designs
- Preparing the College for autonomy

F. Governance and Leadership

- The Management may encourage all teaching departments for more resource mobilization through project funding
- IQAC members may be deputed to visit quality higher educational institutions at the national level and if possible good institutions abroad



Sd/ -

Dr.Rajan Varughese
Member Secretary,KSHEC



Sd/ -

Dr. Shaju M J
Baselius College. Kottayam

ANNEXURE I

Department wise Observations

Note: All the Departments

- (1) Offer one open course each under the CBCS
- (2) Prepares Academic Calendar
- (3) Has records of Teacher's Diary, and lesson plan maintained by teachers
- (4) Undertake Result analysis
- (5) Active alumni association

Department wise data evaluation

Mathematics

Department of Mathematics has 05 permanent teachers consisting of 01 Ph.D. degree holders. 01 teacher has M.Phil. Degree and 04 are NET qualified. 01 teacher is approved research guide of the affiliating University. The Department of Mathematics is an approved research Centre of the University and is the first among affiliated Colleges in the University, has 01 external research guide and has 10 research scholars including the 6 research scholars of internal faculty guide. 02 teachers are in BoS and 02 are members of prestigious Organizations – Kerala Mathematics Association and Ramanujan Mathematical Society. No research papers were published in refereed journals during 2020-2021. 6 invited lectures were organized. The sanctioned strength of students is 60 for UG & 20

for PG and are filled using Centralised Allotment Process (CAP). Result percentage is 57% for 2019-20 and 45% for 2020-21 respectively for UG and 25% for 2019-20 and 71% for 2020-21 respectively for PG programmers. Department needs to focus on improving University examination results of both UG and PG programmes.

Physics

Department of Physics has 04 permanent teachers. 03 teachers have Ph.D. degree. Teachers published 01 research papers/articles in refereed journals\research papers in Conference Proceedings, during the year 2020-21.

The sanctioned strength of students is 48 for UG & 13 for PG and are filled using Centralized Allotment Process (CAP). Result percentage is 82.5% for 2019-20 and 66% for 2020-21 respectively for UG and 85.7% for 2019-20 and 83.3% for 2020-21 respectively for PG programmes. Department needs to focus on improving University examination results of both UG and PG programmes especially UG programme.

Chemistry

The Department of Chemistry has 13 permanent teachers of who 10 have Ph.D., qualification. 02 teachers are research scholars and 9 are NET qualified. 04 teachers are university approved research guides. 05 teachers attended FDPs. The college offers B.Sc., M.Sc., and Ph.D. programmes in Chemistry.

Teachers of Chemistry Department published 2 research papers during 2020-2021, 11 research papers during 2021-2022. It organized 02 international levels, 03 national level and 03 regional level conferences/seminars/workshops. The department organized 9 seminars/workshops. Teachers attended 09 international and 24 national conferences/seminars/workshops during 2021-2022. Teachers have 6 publications in UGC Journals during the year 2020-2021 and 13 publications in international level and 03 in national level refereed research journals during 2021-22. It had 2 Major Research Projects, no Minor Research Projects and 12 Student Projects with an out lay of over Rs.36 lakhs. The Department has few consultancy projects like water quality analysis, and has no MOUs. 03 teachers were recognized by nominating/selecting them to Boards of reputed institutions/organizations. The sanctioned strength of students is 48 for UG & 15 and 12 for PG in Chemistry and Analytical Chemistry and are filled using Centralised Allotment Process (CAP). Result percentage is 78.4% for 2019-20 and 90.4% for 2020-21 respectively for UG and 85.7% and 70% for Chemistry and Analytical Chemistry for 2019-20 and 83.3% and 80% for Chemistry and Analytical Chemistry for 2020-21 respectively for PG programmes. Department needs to work towards enhancing University examination results to greater heights for both UG and PG programmes.

Botany

Department of Botany has 9 permanent teachers and 5 of them have Ph.D. degrees. Result Analysis was undertaken. Number of add on programmes is 2 for each of the audit years 2020-2021, 2021-2022, Pass percentage has increased during 2020-22. Teachers could develop 03 reference materials as E-content. Teachers attended 1 international and 6 national level conference. 2 research

article where published during the year 2020-2021 in UGC Referred Journals 5. Teachers published 13 research papers/articles in refereed journals/ research papers in Conference Proceedings, during 2021-22 and presented 8 papers in research conferences.

The sanctioned strength of students is 48 and 24 each for the 2 streams for UG & 8 (2020-21) and 10 (2021-22) for PG and are filled using Centralized Allotment Process (CAP). Result percentage is 81% & 78% for the 2 streams for 2019-20 and 52% & 72.3% for the 2 streams for 2020-21 respectively for UG and 25% for 2019-20 and 57% for 2020-21 respectively for PG programmes. The causes of dropouts in UG needs to be analyzed and action to be initiated. Department needs to focus on improving University examination results of UG and PG programmes, especially PG programme.

Zoology

The Department has 6 permanent teachers of which 2 are NET qualified and 5 of them are Ph.D. degree holders. 02 teachers are approved research guides of the affiliating University. Teachers published 2 research papers/articles in refereed journals in 2020-21 and 3 in 2021-22 no research papers in Conference Proceedings, and presented 8 papers in research conferences. The department organized 3 invited lectures/talks.

The sanctioned strength of students is 40 for UG & 10 for PG and are filled using Centralised Allotment Process (CAP). Result percentage is 41% for 2019-20 and 67% for 2020-21 respectively for UG and 56% for 2019-20 and 60% for 2020-21 respectively for PG programmes. Department needs to take more efforts for the academic support and focus more on improving University examination results of both UG and PG programmes.

Biosciences

Biotechnology and Microbiology

Department of Biosciences has 2 PG programmes in Biotechnology and Microbiology and has

5 full time teachers including 01 NET qualified. Teachers published 01 research papers/articles in refereed journals, no research papers in Conference Proceedings, and presented 01 papers in research conferences during the audit period.

It has a sanctioned strength of 24 and 20 each during 2019-20 and 24 each during 2020-21 for the Microbiology and Biotechnology PG programmes and are filled using Centralised Allotment Process (CAP). The Department has sufficient number of well equipped laboratories, and necessary infrastructure for quality teaching. Result percentage is 70% for 2019-20 and 100% for 2020-21 respectively for PG programmes.

Data Analytics

MSc in Data Analytics

The Department was started in 2020-21 and has 3 contractual appointment teachers. The sanctioned strength of students is 12 for PG and are filled using Centralised Allotment Process (CAP). Department needs to focus on establishing sound practices for good University examination results for the newly introduced PG programme.

English

The Department has B.A., M.A., and Ph. D. Programme. It has 09 teachers including 04 with Ph.D. 02 with M.Phil. Degrees and all 09 are NET qualified. 05 teachers are pursuing research leading to award of Ph.D. degree and 01 has submitted thesis and awaiting result.

Teachers published 03 research papers/articles in refereed journals, 02 research papers in Conference Proceedings, and presented 03 papers in research conferences during the audit period.

The sanctioned strength of students is 55 for UG & 20 for PG and are filled using Centralized Allotment Process (CAP). Result percentage is 90.5% for 2019-20 and 77.1% for 2020-21 respectively for UG and 62.5% for 2019-20 and 100% for 2020-21 respectively for PG programmes. Department needs to focus on improving University examination results of UG programme.

Economics

Department of Economics has 3 teachers and offers B.A, M.A, and PhD programmes. Teachers published 01 research papers/articles in refereed journals during 2020-21 no research papers in Conference Proceedings, and presented 02 papers in research conferences. The sanctioned strength of students is 60 for UG & 14 for PG and are filled using Centralised Allotment Process (CAP). Result percentage is 52.2% for 2019-20 and 41.1% for 2020-21 respectively for UG and 28.6% for 2019-20 and 50% for 2020-21 respectively for PG programmes. The department organized 5 lectures/ invited talks during 2020-21. The Department needs to provide greater focus on improving University examination results of both UG and PG programmes.

History

The History Department has a UG programme: B.A. (40 students) 2020-2021. It has 3 permanent teachers. Result analysis is undertaken and has been consistently good. Teachers' published 01 research papers/articles in refereed journals, no research papers in Conference Proceedings, and presented 1 papers in research conferences during 2020-21. The department organized 5 lectures/ invited talks during 2020-21.

The sanctioned strength of students is 40 for UG and is filled using Centralised Allotment Process (CAP). Result percentage is 71% for 2019-20 and 53 % for 2020-21 respectively for UG and 25% for 2019-20 and 71% for 2020-21 respectively for PG programmes. Department needs to focus on improving University examination results of its UG programme. The Department received Vanamitra award and has an active unit of 'Vidyavanam Forestry' of Social Forestry section of Kerala Forest Department.

Political Science

The Department has 02 teachers including 01 PhD degree holder. Department offers no add on programme and documentation including MoUs needs to be maintained. The department organized

02 lectures/ invited talks during 2020-21. Teachers published 02 research papers/articles in refereed journals during 2020-21. The sanctioned strength of students is 40 for UG and is filled using Centralized Allotment Process (CAP). Result percentage is 52% for 2019-20 and 50% for 2020-21 respectively for the UG programme. Department needs to concentrate in student support measures in improving University examination results of its UG programme.

Commerce

The Department has two streams of BCom – BCom Model I and II and has 03 permanent teachers. The Department offered 2 Add on programmes during each of the 2 audit years.

02 teachers attended Refresher courses and 4 Orientation programmes in Academic Staff Colleges. Teachers published 03 research papers/articles in refereed journals, 0 research papers in Conference Proceedings, and presented 06 papers in research conferences. The department organized 06 lectures/ invited talks during 2020-21.

The Department has connections with 12 industries and 01 linkage with the Financial Literacy Counselling Centre of RBI. It has 04 MoUs with 04 industries. The sanctioned strength of students is 30 each for BCom Model I and BCom Model II and are filled using Centralized Allotment Process (CAP). Result percentage is 79% & 74% for BCom Model I and BCom Model II for 2019-20 and 100% & 98% for BCom Model I and BCom Model II for 2020-21 respectively. Department commendably performed in academic results and needs to maintain the performance in both the streams.

Malayalam

Malayalam is offered at second language level for UG students in B.A./B.Sc./B.Com. It has 2 permanent and all 2 are Ph.D. holders. Result analysis is undertaken and needs to be formalised. Teachers published 03 research papers in Conference Proceedings, and presented 01 paper in research conferences. The department organized 03 lectures/ invited talks during 2020-21.

Hindi

The Department has 2 teachers and is manned by adhoc teachers. Hindi language is taught as second language up to the second year of the UG programme.

Physical Education

Department of Physical Education has 01 permanent teacher, who is a PhD degree holder. The Department is offering an open course. Students of the College have representations at the University and State level. The Dept organized 01 Conference and the teacher attended 01 Conference during the audit period, The Department/teacher received 05 Prizes and Recognitions.