

KITE/S&H/2B/01/2021-22

31-3-2022.

To,

The Director,
Centre for Academic Courses,
Anna University,
Chennai-600 025

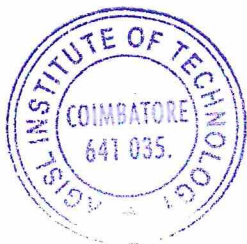
Dear Sir,


Sub.: Affiliated Institution- R-2021(CBCS) curriculum & syllabi for full time
B.E. & B.Tech programmes- MA3251-Statistics and Numerical Methods –
Inclusion of a Topic – Suggestion sent - reg

We bring to your kind perusal the following suggestion for inclusion in the syllabus of the course 'MA3251-Statistics and Numerical Methods' under the newly published R-2021 regulation for full time B.E. & B.Tech programmes in affiliated institutions.


In Unit V of the existing syllabus, only Runge-Kutta Method for solving First Order Differential Equation is mentioned. We are of the opinion that if 'Runge-Kutta Method for solving Higher Order Differential Equation' is also included, it will benefit the students in finding better solution for complex real life time problems, especially when using Python and MATLAB.

Thanking you,




Dr. S.SURESH KUMAR, M.E., Ph.D., C.Engg.
Principal
KGISL Institute of Technology
Saravanampatti, Coimbatore - 641 035

Yours sincerely,


31/3/2022

Encl: MA3251- STATISTICS AND NUMERICAL METHODS - Syllabus

- English for Science & Technology Cambridge University Press 2021. Dr. Veena Selvam, Dr. Sujatha Priyadarshini, Dr. Deepa Mary Francis, Dr. KN. Shoba, and Dr. Lourdes Joevani, Department of English, Anna University.

REFERENCES:

- Raman. Meenakshi, Sharma. Sangeeta (2019). Professional English. Oxford university press. New Delhi.
- Improve Your Writing ed. V.N. Arora and Laxmi Chandra, Oxford Univ. Press, 2001, New Delhi.
- Learning to Communicate – Dr. V. Chellammal. Allied Publishers, New Delhi, 2003
- Business Correspondence and Report Writing by Prof. R.C. Sharma & Krishna Mohan, Tata McGraw Hill & Co. Ltd., 2001, New Delhi.
- Krishna Mohan, Meera Banerji, "Developing Communication Skills", Trinity Press, 2017.

MA3251

STATISTICS AND NUMERICAL METHODS

L T P C

3 1 0 4

COURSE OBJECTIVES:

- This course aims at providing the necessary basic concepts of a few statistical and numerical methods and give procedures for solving numerically different kinds of problems occurring in engineering and technology.
- To acquaint the knowledge of testing of hypothesis for small and large samples which plays an important role in real life problems.
- To introduce the basic concepts of solving algebraic and transcendental equations.
- To introduce the numerical techniques of interpolation in various intervals and numerical techniques of differentiation and integration which plays an important role in engineering and technology disciplines.
- To acquaint the knowledge of various techniques and methods of solving ordinary differential equations.

UNIT I TESTING OF HYPOTHESIS

9 + 3

Sampling distributions - Tests for single mean, proportion and difference of means (Large and small samples) – Tests for single variance and equality of variances – Chi square test for goodness of fit – Independence of attributes.

UNIT II DESIGN OF EXPERIMENTS

9 + 3

One way and two way classifications - Completely randomized design – Randomized block design – Latin square design - 2^2 factorial design.

UNIT III SOLUTION OF EQUATIONS AND EIGENVALUE PROBLEMS

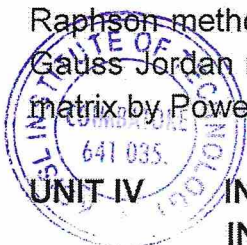
9 + 3

Solution of algebraic and transcendental equations - Fixed point iteration method – Newton Raphson method- Solution of linear system of equations - Gauss elimination method – Pivoting - Gauss Jordan method – Iterative methods of Gauss Jacobi and Gauss Seidel - Eigenvalues of a matrix by Power method and Jacobi's method for symmetric matrices.

UNIT IV

INTERPOLATION, NUMERICAL DIFFERENTIATION AND NUMERICAL INTEGRATION

9 + 3



DR. S. SURESH KUMAR, M.E., Ph.D., C.Engg.
Principal
KCISL Institute of Technology
Saccavandampatti, Coimbatore - 641 035

Lagrange's and Newton's divided difference interpolations – Newton's forward and backward difference interpolation – Approximation of derivatives using interpolation polynomials – Numerical single and double integrations using Trapezoidal and Simpson's 1/3 rules.

UNIT V NUMERICAL SOLUTION OF ORDINARY DIFFERENTIAL EQUATIONS 9 +3

Single step methods: Taylor's series method - Euler's method - Modified Euler's method - Fourth order Runge-Kutta method for solving first order differential equations - Multi step methods: Milne's and Adams - Bash forth predictor corrector methods for solving first order differential equations.

TOTAL: 60 PERIODS

COURSE OUTCOMES:

Upon successful completion of the course, students will be able to:

- Apply the concept of testing of hypothesis for small and large samples in real life problems.
- Apply the basic concepts of classifications of design of experiments in the field of agriculture.
- Appreciate the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems.
- Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.
- Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.

TEXT BOOKS:

1. Grewal, B.S., and Grewal, J.S., "Numerical Methods in Engineering and Science", Khanna Publishers, 10th Edition, New Delhi, 2015.
2. Johnson, R.A., Miller, I and Freund J., "Miller and Freund's Probability and Statistics for Engineers", Pearson Education, Asia, 8th Edition, 2015.

REFERENCES:

1. Burden, R.L and Faires, J.D, "Numerical Analysis", 9th Edition, Cengage Learning, 2016.
2. Devore. J.L., "Probability and Statistics for Engineering and the Sciences", Cengage Learning, New Delhi, 8th Edition, 2014.
3. Gerald. C.F. and Wheatley. P.O. "Applied Numerical Analysis" Pearson Education, Asia, New Delhi, 7th Edition, 2007.
4. Gupta S.C. and Kapoor V. K., "Fundamentals of Mathematical Statistics", Sultan Chand & Sons, New Delhi, 12th Edition, 2020.
5. Spiegel. M.R., Schiller. J. and Srinivasan. R.A., "Schaum's Outlines on Probability and Statistics", Tata McGraw Hill Edition, 4th Edition, 2012.
6. Walpole. R.E., Myers. R.H., Myers. S.L. and Ye. K., "Probability and Statistics for Engineers and Scientists", 9th Edition, Pearson Education, Asia, 2010.

Dr. S. SURESH KUMAR, M.E., Ph.D., C.Engg.

Principal

KGISL Institute of Technology
Saravanampatti, Coimbatore - 641 035



PHYSICS FOR ELECTRONICS ENGINEERING

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KGISL INSTITUTE OF TECHNOLOGY

(Managed by KGISL Trust)

(Approved by AICTE, Affiliated to Anna University)

365, KGISL Campus, Thudiyalur Road, Saravanampatti, Coimbatore - 641,035 INDIA

Phone : 91 (422) 441 9999 E-mail : info@kgkite.ac.in, Website : www.kgkite.ac.in

KITE

04.04.2022

KITE/PO/2A/01/2021-22

To,
The Director,
Centre for Academic Courses,
Anna University,
Chennai-600 025

Dear Sir,

Sub.: Affiliated Institution- R-2021(CBCS) curriculum & syllabi for full time
B.E. & B.Tech programmes- GE3251-Engineering Graphics – Inclusion
and Swapping of certain content – suggestion sent - reg

We bring to your kind perusal the following suggestions regard to the syllabus of the course 'GE3251-Engineering Graphics' under the newly published R-2021 regulation for the 2nd semester, full time B.E. & B.Tech programmes in affiliated institutions.

Suggestion 1

The title for UNIT I in the existing syllabus is given as 'PLANE CURVES AND FREEHAND SKETCHING'. However, there are no topics for freehand sketching is mentioned.

In the same way, the given title for UNIT III is 'PROJECTION OF SOLIDS' which has topics on freehand sketching also apart from that of projection of solids. (Visualization concepts and Free.....views of objects).

Clarity is required for the 'either or' questions that may be asked from UNIT I and UNIT III during the end semester examination.

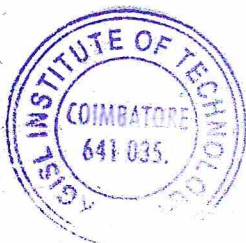
Suggestion 2

The title in the existing syllabus for UNIT V, ISOMETRIC AND PERSPECTIVE PROJECTIONS may be changed as ISOMETRIC DRAWING AND PERSPECTIVE PROJECTIONS.

We recommend for the inclusion of 'isometric drawing' of simple solids and truncated solids rather than 'isometric projection'. In that case, topics on 'isometric projection vs isometric drawing' may be included.

Thanking you,

Yours sincerely,



Dr. S.SURESH KUMAR, M.E., Ph.D., C.Engg.
Principal

KGISL Institute of Technology
Saravanampatti, Coimbatore - 641 035

PRINCIPAL

Encl.: GE3251-Engineering Graphics syllabus

REFERENCES:

1. Kothari DP and I.J Nagrath, "Basic Electrical Engineering". Fourth Edition, McGraw Hill Education, 2019.
2. Thomas L. Floyd, 'Digital Fundamentals', 11th Edition, Pearson Education, 2017.
3. ~~Albert Malvino, David Bates, 'Electronic Principles', McGraw Hill Education, 7th edition, 2017.~~
4. Mahmood Nahvi and Joseph A. Edminister, "Electric Circuits", Schaum's Outline Series, McGraw Hill, 2002.
5. H.S. Kalsi, 'Electronic Instrumentation', Tata McGraw-Hill, New Delhi, 2010

GE3251

ENGINEERING GRAPHICS

L T P C
2 0 4 4

COURSE OBJECTIVES:

The main learning objective of this course is to prepare the students for:

1. Drawing engineering curves.
2. Drawing freehand sketch of simple objects.
3. Drawing orthographic projection of solids and section of solids.
4. Drawing development of solids
5. Drawing isometric and perspective projections of simple solids.

CONCEPTS AND CONVENTIONS (Not for Examination)

Importance of graphics in engineering applications - Use of drafting instruments - BIS conventions and specifications — Size, layout and folding of drawing sheets — Lettering and dimensioning.

UNIT I PLANE CURVES AND FREEHAND SKETCHING

6+12

Basic Geometrical constructions, Curves used in engineering practices: Conics — Construction of ellipse, parabola and hyperbola by eccentricity method — Construction of cycloid — construction of involutes of square and circle — Drawing of tangents and normal to the above curves.

UNIT II PROJECTION OF POINTS, LINES AND PLANE SURFACE

6+12

Orthographic projection- principles-Principal planes-First angle projection-projection of points. Projection of straight lines (only First angle projections) inclined to both the principal planes - Determination of true lengths and true inclinations by rotating line method and traces. Projection of planes (polygonal and circular surfaces) inclined to both the principal planes by rotating object method.

UNIT III PROJECTION OF SOLIDS

6+12

Projection of simple solids like prisms, pyramids, cylinder, cone and truncated solids when the axis is inclined to one of the principal planes and parallel to the other by rotating object method. Visualization concepts and Free Hand sketching: Visualization principles — Representation of Three Dimensional objects — Layout of views- Freehand sketching of multiple views from pictorial views of objects.

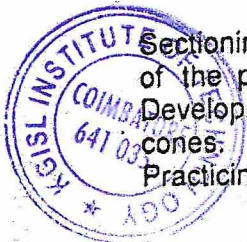
Practicing three dimensional modeling of simple objects by CAD Software (Not for examination)

UNIT IV PROJECTION OF SECTIONED SOLIDS AND DEVELOPMENT OF SURFACES

6+12

Sectioning of above solids in simple vertical position when the cutting plane is inclined to the one of the principal planes and perpendicular to the other — obtaining true shape of section. Development of lateral surfaces of simple and sectioned solids — Prisms, pyramids cylinders and cones.

Practicing three dimensional modeling of simple objects by CAD Software (Not for examination)



Dr. S. SURESH KUMAR, M.E., Ph.D., C. Engg.
Principal
KJ Somaiya Institute of Technology
Saravanampatti, Coimbatore - 641 035

UNIT V ISOMETRIC AND PERSPECTIVE PROJECTIONS 6+12

Principles of isometric projection — isometric scale - Isometric projections of simple solids and truncated solids - Prisms, pyramids, cylinders, cones- combination of two solid objects in simple vertical positions - Perspective projection of simple solids-Prisms, pyramids and cylinders by visual ray method.

Practicing three dimensional modeling of isometric projection of simple objects by CAD Software (Not for examination)

TOTAL (L=30; P=60) 90 PERIODS

COURSE OUTCOMES:

On successful completion of this course, the student will be able to

- Use BIS conventions and specifications for engineering drawing.
- Construct the conic curves, involutes and cycloid.
- Solve practical problems involving projection of lines.
- Draw the orthographic, isometric and perspective projections of simple solids.
- Draw the development of simple solids.

TEXT BOOK:

1. Bhatt N.D. and Panchal V.M., "Engineering Drawing", Charotar Publishing House, 53rd Edition, 2019.
2. Natrajan K.V., "A Text Book of Engineering Graphics", Dhanalakshmi Publishers, Chennai, 2018.
3. Parthasarathy, N. S. and Vela Murali, "Engineering Drawing", Oxford University Press, 2015

REFERENCES:

1. Basant Agarwal and Agarwal C.M., "Engineering Drawing", McGraw Hill, 2nd Edition, 2019.
2. Gopalakrishna K.R., "Engineering Drawing" (Vol. I&II combined), Subhas Publications, Bangalore, 27th Edition, 2017.
3. Luzzader, Warren.J. and Duff, John M., "Fundamentals of Engineering Drawing with an introduction to Interactive Computer Graphics for Design and Production", Eastern Economy Edition, Prentice Hall of India Pvt. Ltd, New Delhi, 2005.
4. Parthasarathy N. S. and Vela Murali, "Engineering Graphics", Oxford University, Press, New Delhi, 2015.
5. Shah M.B., and Rana B.C., "Engineering Drawing", Pearson Education India, 2nd Edition, 2009.
6. Venugopal K. and Prabhu Raja V., "Engineering Graphics", New Age International (P) Limited, 2008.

Publication of Bureau of Indian Standards:

1. IS 10711 — 2001: Technical products Documentation — Size and lay out of drawing sheets.
2. IS 9609 (Parts 0 & 1) — 2001: Technical products Documentation — Lettering.
3. IS 10714 (Part 20) — 2001 & SP 46 — 2003: Lines for technical drawings.
4. IS 11669 — 1986 & SP 46 — 2003: Dimensioning of Technical Drawings.
5. IS 15021 (Parts 1 to 4) — 2001: Technical drawings — Projection Methods.

Special points applicable to University Examinations on Engineering Graphics:

1. There will be five questions, each of either or type covering all units of the syllabus.
2. All questions will carry equal marks of 20 each making a total of 100.
3. The answer paper shall consist of drawing sheets of A3 size only. The students will be permitted to use appropriate scale to fit solution within A3 size.
4. The examination will be conducted in appropriate sessions on the same day




Dr. S.SURESH KUMAR, M.E., Ph.D., C.Engg.
Principal
KGISL Institute of Technology
Saravanampatti, Coimbatore - 641 035

Fwd: AU – Centre for Academic Courses – B.E./B.Tech. – Regulation 2021 (CBCS) – GE3251 Engineering Graphics – Revision of minor changes in syllabus - Reg.

1 message

Dr.Kathiravan Nanjundan <kathiravan.n@kgkite.ac.in>

Thu, May 12, 2022 at 4:19 PM

To: Seenivasan Murugesan <sreenivasan.m@kgkite.ac.in>, StalinDurai Thangadurai <stalindurai.t@kgkite.ac.in>, Rajiv Kumar Nandagopal <rajivkumar.n@kgkite.ac.in>, Venugopal Thangamuthu <venugopal.t@kgkite.ac.in>

----- Forwarded message -----

From: **Dr. Rajkumar Nalliah** <rajkumar.n@kgkite.ac.in>

Date: Thu, May 12, 2022 at 2:01 PM

Subject: Fwd: AU – Centre for Academic Courses – B.E./B.Tech. – Regulation 2021 (CBCS) – GE3251 Engineering Graphics – Revision of minor changes in syllabus - Reg.

To: KiteHODS <kitehods@kgkite.ac.in>

----- Forwarded message -----

From: **Academic Courses** <cacannauniv@gmail.com>

Date: Thu, May 12, 2022, 1:56 PM

Subject: AU – Centre for Academic Courses – B.E./B.Tech. – Regulation 2021 (CBCS) – GE3251 Engineering Graphics – Revision of minor changes in syllabus - Reg.

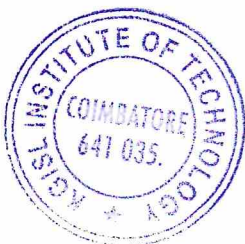
Sir,

With reference to the above, the minor changes in the syllabus content for the course **GE3251 Engineering Graphics** of all B.E./ B.Tech. programmes under Regulations 2021 (CBCS) of Non- Autonomous Colleges affiliated to Anna University, Chennai is enclosed.

This is for your kind information and necessary action.

With regards,
CAC

 **Engineering graphics - Correction.pdf**
972K




Dr. S.SURESH KUMAR, M.E., Ph.D., C.Engg.
Principal
KGISL Institute of Technology
Saravanampatti, Coimbatore - 641 035



CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI - 600 025

Off: 22357077 / 73

22357074

Fax / Dir : 22352272



Dr. S. HOSIMIN THILAGAR
DIRECTOR
Letter No.1017/AU/CAC/2022

11.05.2022

To
The Controller of Examinations
Anna University,
Chennai - 600 025.

Sir,

Sub: AU – Centre for Academic Courses – B.E./B.Tech. – **Regulation 2021 (CBCS)** – GE3251 Engineering Graphics – Revision of minor changes in syllabus - Reg.

Ref: Letter and e-mail representation - Non- Autonomous Colleges affiliated to Anna University, Chennai.

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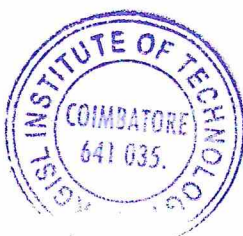
Yours faithfully,


DIRECTOR

Encl: As Above

Copy to:

1. The Principal, Non Autonomous Colleges, Affiliated to Anna University (offering B.E./B.Tech.).
2. The Chairperson, Faculty of Mechanical Engineering, Anna University, Chennai – 600 025.
3. The Stock File, CAC.




Dr. S.SURESH KUMAR, M.E., Ph.D., C.Engg.
Principal
KGISL Institute of Technology
Saravanampatti, Coimbatore - 641 035

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Practicing three dimensional modeling of simple objects by CAD Software (Not for examination)

UNIT IV PROJECTION OF SECTIONED SOLIDS AND DEVELOPMENT OF SURFACES**6 +12**

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UNIT V ISOMETRIC AND PERSPECTIVE PROJECTIONS**6+12**

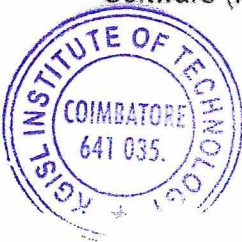
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TOTAL: (L=30, P=60) 90 PERIODS

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