

INFORMATION TO CANDIDATES

I. GENERAL

Applications are invited for admission to the following M.Phil. (Full Time) degree programmes offered at University Departments of College of Engineering Guindy and Madras Institute of Technology campuses, Anna University, Chennai - 600 025.

| SI. No. | Branch | |
|---------|-------------|--|
| 1 | Mathematics | |
| 2 | Physics | |
| 3 | Chemistry | |
| 4 | English | |

II. ELIGIBLITY AND BRANCHES FOR ADMISSION

The candidates must have passed the Postgraduate degree in the relevant field (as given in Table - 1) in 10+2+3+2 years pattern from a recognised University.

| SI. No. | Branch | Eligibility | Campus |
|------------|-------------|---|---|
| 1 | Mathematics | M.Sc. (Mathematics/ Applied Mathematics) | Madras Institute of Technology Campus, Chrompet |
| 2 | Physics | M.Sc. (Physics/ Medical Physics/ Materials Science) | College of Engineering, Guindy Campus |
| 3 | Chemistry | M.Sc. (Chemistry/ Applied Chemistry) | College of Engineering, Guindy Campus |
| 4 | English | M. A. (English) | College of Engineering, Guindy Campus |

Table – 1

- **III. DURATION**: One Academic Year comprising two semesters
- IV. GENERAL STRUCTURE OF THE PROGRAMME: The programme comprises a background subject, a core subject, an elective subject and a research project. The background subject and core subject are offered in the first semester. The elective subject is offered either in the first semester or in the second semester. A candidate shall be required to pass the background and core subject before he / she submits the thesis.

V. HOSTEL ACCOMMODATION WILL NOT BE PROVIDED.

VI. SELECTION AND ADMISSION PROCEDURE

Selection of candidates will be as per the merit list prepared based on the marks secured in the entrance examination conducted by Anna University

The selection of candidates will be through counselling following the rule of reservation of Government of Tamil Nadu. Reservation will be made under seven categories namely OC, BC (other than BC Muslim), BCM (BC Muslim), MBC / DNC, SC, SCA and ST.

Tamil Nadu Native candidates alone will be considered for communal reservation and the list of communities eligible for communal reservation is given in the **Annexure - I**.

Candidates seeking admission under ST/ SC/ SCA/ MBC & DNC/ BC/BCM (BC Muslim) quota should obtain the certificate of social status issued by the competent authority in the Permanent Community card prescribed by the Government of Tamil Nadu and enclose only an attested photocopy of the same along with the application.

a) The applicants from Tamil Nadu State should have obtained permanent community certificate card (for SC/SCA/ST/MBC & DNC, BC and BC Muslim candidates) only from the authorities given below on or before the last date prescribed for submission of filled-in application.

| Community | Issuing Authority | | |
|---|--|--|--|
| Scheduled Tribe | Revenue Divisional Officer of their native place or Sub-Collector of their districts (except Chennai) or P.A. (General) to Collector of Chennai. The Community Certificate card issued by Tahsildars upto 11.11.1989 is valid. | | |
| Scheduled Caste / Scheduled Caste (Arunthathiyars) | Tahsildar of Native Taluk of the candidate | | |
| Backward Class / Backward Class (Muslim) / Most Backward Class / Denotified Communities | Headquarters Deputy Tahsildar / Zonal Deputy Tahsildar / Deputy Tahsildar (Certificates) | | |

Married women should possess Community Certificate issued in Father's name only.

Community Certificate issued after the last date prescribed for submission of filled-in applications will not be considered.

- b) Community Certificate obtained from **Other States** will not be considered for communal reservation.
- c) For communities linked with districts the candidates should obtain their community certificate in their respective district. Community certificates obtained from other than their respective district will not be considered. However, the candidates who belong to BC, MBC and DNC communities in a particular district and migrated to other places in Tamil Nadu and obtained Community Certificates from competent authorities in the migrated district on or after 28.10.2009, will be considered. (as per G.O. (St) No.95 BC, MBC & Minorities Welfare Department, dated 28.10.2009).

d) Candidates who have not enclosed an attested photocopy of the Permanent Community Card certificate at the time of submission of the application will be treated under Open Category (OC). In the event of such a decision, the eligibility conditions and rules prescribed for open category (OC) will be applicable for such candidates and if such candidates do not satisfy the rules of "Open Category" (OC) their applications are liable to be rejected. No correspondence in this regard will be entertained.

If two candidates have obtained same marks in the preparation of merit list, the candidate having higher average percentage of marks upto pre-final semester/year of the qualifying examination and have passed all the subjects of the qualifying examination upto pre-final semester / year will be ranked above.

Candidates who have secured zero mark / negative mark in the entrance examination are not eligible for admission. Candidates who have passed all the subjects in the qualifying degree examinations alone will be permitted to attend the counselling. Candidates who do not attend counselling on the prescribed date and time cannot claim any right for admission and their names will be removed from the merit list.

<u>More number of candidates than the actual seats available will be called for counselling</u>. The required number of seats will be filled based on merit and following communal reservation, through counselling.

Rank list and counselling schedule will be published in Anna University Website. The date of counselling will be informed to the candidates individually through the counselling call letter by speed post through self addressed stamped envelope enclosed by the candidate. Eligible candidates may appear with their original certificates (List available in Anna University website) two hours before the counselling session, irrespective of receipt of individual communication. College and branch will be allotted only through counselling as per their rank following communal reservation. Candidates are advised to visit Anna University website: http://www.annnauniv.edu for counselling details. The University will not be responsible for non-receipt of counselling call letter. Counselling will be held at Centre for Entrance Examinations and Admissions, Anna University, Chennai-25 only. Candidates should attend the counselling at their own cost and risk. Candidates who do not attend the counselling on the prescribed date and time cannot claim any right for admission at a later date.

The counselling schedule and the format of "Intimation of Counselling" containing details about counselling will be published in Anna University website <u>http://www.annauniv.edu</u> before the commencement of counselling.

Candidates who have passed all the subjects in the qualifying degree exam but have not yet received their provisional / degree certificate will also be considered for counselling. However, such candidates have to produce an evidence for having passed all the subjects like, downloaded mark sheet attested by any Faculty/HOD/COE. If such candidates are selected and offered provisional admission as per merit, they have to join the programme on the prescribed date after paying the prescribed fees. They have to produce the provisional/degree certificate on or before the date prescribed by the Dean of the Campus concerned. The provisional admission of those candidates who fail to produce the said certificate on or before the specified date, even if eligible otherwise, will automatically stand cancelled. Such candidates have to discontinue the programme and they are not eligible for refund of the fees paid.

Seats are reserved specially for Differently abled persons as per Government Norms.

The Counselling will be conducted at Anna University, Chennai - 600 025. Candidates should attend counselling at their own cost with all their original certificates with an initial deposit of ₹ 5000/- in the form of a Demand Draft.

Candidates are advised to visit Anna University website <u>www.annauniv.edu</u> for the results of the Entrance Examinations and the schedule for counselling and for other details regarding admission to M.Phil. Degree Programmes.

VII. HALL TICKET

Hall ticket for Entrance Examination will be despatched to all eligible candidates on or before 10.06.2014. If any candidate does not receive the Hall Ticket by 18.06.2014 he/she should get a certificate from the Head of the Institution last studied/studying or from a Grade A or B officer to the effect that he/she is a genuine candidate for the Entrance Examination along with an attested copy of a passport size photograph which has been taken from the same negative as used for the photo in the application and hall ticket and produce the same on 21.06.2014 between 10.00 a.m. and 5.00 p.m. in the enquiry office at the Examination Centre, Anna University, Chennai –25. The candidate, if eligible after verification, will be issued a duplicate Hall Ticket.

Hall Ticket for Entrance Examination should be produced at the time of admission. If the mark sheet is lost, a duplicate mark sheet can be obtained on payment of ₹ 250/- on a written requisition to the Director (Admissions), Anna University, Chennai – 600 025. If the Hall Ticket is lost, a duplicate Hall Ticket can be obtained on payment of ₹ 100/- on a written requisition to the Director (Admissions), Anna University, Chennai - 600 025, indicating the Registration No. and produce an attested photograph which has been taken from the same negative used for the photo affixed in the application and Hall Ticket with a certificate obtained from the Head of the Institution where he/she has studied or is studying or an officer of Grade A or B to the effect that he/she is a genuine candidate who has appeared for the Entrance Examination.

The Mark Sheet of the Entrance Examination will be despatched to the candidates after the publication of marks of the Entrance Examination (in the envelope enclosed by the candidate).

The payment for Duplicate Hall Ticket / Mark Sheet must be made in the form of a D.D. obtained from any Nationalised Bank drawn in favour of "The Director (Admissions), Anna University", payable at Chennai.

VIII. COUNSELLING

Counselling will be based on the rank and communal reservation. Rank list and counselling schedule will be published in Anna University website. The date of counselling will be informed to the candidates individually through the counselling call letter by ordinary / speed post through self-addressed stamped envelope enclosed by the candidate. Eligible candidates who have applied and whose marks are as specified or above the cut-off mark called for counselling, may appear with their original certificates (List would be available in Anna University website) one hour before their counselling session, irrespective of receipt of individual communication. Candidates are advised to visit Anna University website for counselling details. The University will not be responsible for non-receipt of counselling call letter.

The counselling schedule and the format of "Intimation of Counselling" containing details about counselling will be published in the website before the commencement of counselling.

IX. GUIDELINES FOR THE ENTRANCE EXAMINATION

- (1) There will be a separate Entrance Examination on the following subjects based on M.Sc. Standard.
 - 1. Mathematics 2. Physics 3. Chemistry 4. English

The duration of Entrance Examination is 1 hour. The Entrance Examination will be conducted at Anna University, Chennai – 600 025.

(2) The question paper will have 60 objective type questions except, in English that will have objective and essay type questions. Each objective question will have <u>four</u> alternative answers. The candidate has to choose the correct answer and shade the appropriate box against the question in the answer sheet with pencil. While evaluating the answers, 1 mark will be awarded for each correct answer and 1/4 mark will be deducted for every wrong answer. However, no deduction will be made for questions left unanswered. Multiple shadings will be considered as wrong answer and 1/4 mark will be deducted.

IX. IMPORTANT DATES:

| Last date of receipt of completed Application | : | 30.05.2014 |
|---|---|--------------|
| Date of Entrance Examination | | 22.06.2014 |
| Entrance Examination Centre | : | CHENNAI ONLY |

X. ENCLOSURES

Attested photocopies of the following certificates have to be enclosed with the application (originals should not be enclosed).

- i) X Standard Mark Sheet
- ii) XII / H.Sc. Mark Sheet
- iii) Mark lists of all the semesters of UG Programme
- iv) Bachelor's Degree Certificate or Provisional Certificate
- v) Mark Sheet of all semester / year of Master's Degree
- vi) Postgraduate Degree Certificate or Provisional Degree Certificate. (Candidates appearing for final semester/year exam. of the Qualifying PG Degree in April/May 2014 have to enclose a bonafide certificate from the Head of the Institution where the candidate is studying or attested photocopy of the April/May 2014 University Examination Hall Ticket.
- vii) Copy of Permanent Community Certificate issued by the competent authority in card format (for BC/BCM/MBC/SC/SCA/ST candidates).
- viii) Medical Certificate issued by the District Medical Board for Differently abled person (if applicable)
- ix) Nativity Certificate (if applicable)
- x) Three self addressed envelopes of size (26.5cm x 11cm) with stamp of ₹ 8/- each for sending Hall Ticket, Mark Sheet and ₹ 20/- within Chennai city and ₹ 40/- for other cities for Counselling Call Letter.

XI. MAILING ADDRESS

Completed application should be sent to **"The Director, Centre for Admissions, Anna University, Chennai 600 025**" so as to reach him on or before **30.05.2014**.

IMPORTANT NOTE:

Candidate's rank and the date of counselling will be informed individually through the "Intimation of Counselling" (call letter) to the address written by the candidate in the envelope meant for call letter for counselling enclosed with the application, by speed post.

The merit list, counselling schedule, format of "Intimation of Counselling" containing details regarding venue of counselling, Procedure for counselling, Payment of initial amount, list of documents (in original) to be produced will also be published in Anna University website www.annauniv.edu before the commencement of counselling.

Eligible candidates who have applied and whose marks are as specified or above the cut-off mark called for counselling as mentioned in the counselling schedule may appear for counselling with their original certificates (List available in Anna University website) two hours before the counselling session, irrespective of receipt of "Intimation of Counselling" (call letter) by post.

The University is not responsible for non-receipt of call letter or postal and any other delay.

SYLLABI FOR ENTRANCE EXAMINATIONS

1. M.Phil. MATHEMATICS

- Part 1: **REAL AND COMPLEX ANALYSIS: Real Analysis:** Sequences and Series Uniform convergence – Compactness –Connectedness – Implicit functions – Taylor's theorem - Maxima and Minima for functions of two variables – Lebesque Theory. **Complex Analysis:** Analytic functions – Conformal mapping - Riemann mapping theorem – Homological version of Cauchy's theorem – Residue calculus – Complex Integration – Entire functions – Harmonic functions.
- Part 2: TOPOLOGY AND FUNCTIONAL ANALYSIS: Topology: Topological spaces Continuous functions – product / metric / quotient topology – Connected spaces, Local connectedness – Compact spaces – Limit point compactness, Local compactness – Countability axioms, separation axioms, normal spaces, Urysohn lemma, Urysohn metrization theorem, Tietze's extention theorem, Tychonoff theorem - Completely regular spaces. Banach spaces – Hahn - Banach theorem – Open mapping and closed graph theorem - Principle of uniform boundedness -Hibert spaces - Orthonormal bases - Riesz representation theorem - Bounded linear operators.
- Part 3: MECHANICS AND DIFFERENTIAL EQUATIONS: Mechanics: Kinematics Dynamics in space - Langrangian mechanics – Hamiltonian methods – Tensors. Differential Equations: Systems of linear ODEs – Fundamental matrix – Strum – Lioville problems – Bessel's & Legender's differential equations – Linear P.D.E of first and second order – Laplace, wave and diffusion equations.
- Part 4: ALGEBRA AND GRAPH THEORY : Algebra: Normal subgroups Homomorphism theorems – Automorphisms - Sylow's theorems and their applications – Rings -Euclidean domains - Principal ideal domains and unique factorization domains -Prime ideals and maximal ideals in commutative rings – Fields - finite fields. Graph Theory: Graphs and subgraphs – Degree sequence – Graph representation and isomorphism – Trees – Connectivity – Eulerian and Hamiltonian graphs – Matching – Independent sets and cliques – Vertex colouring – Planar graphs – Directed graphs.
- Part 5: **PROBABILITY AND RANDOM VARIABLES:** Axioms of probability Conditional probability Total probability Baye's Theorem Random variables (Discrete and continuous) Transformation of random variables Central limit theorems Marginal and conditional distributions Binomial, Poisson, Normal and Exponential distributions Moment generating functions.
- Part 6: **NUMERICAL ANALYSIS:** Iterative methods of Gauss-Jacobi and Gauss-Seidel Convergence considerations – Lagrange's interpolation – Errors in Lagrange's interpolation – Newton's forward and backward difference formulae for equidistant points – Numerical differentiation – Newton Cotes formulae – Taylor series method – Euler's method – Runge-Kutta method of fourth order. Finite difference solution of one dimensional heat and wave equations using explicit and implicit methods – Solution of Laplace and Poisson equations in a rectangular region.

2. M.Phil. PHYSICS

<u>Mathematical Physics</u> : Vectors and tensors – Second order differential equations and special functions – Partial differential equations – Complex variables – Fourier series, Fourier transform, Laplace transform and Green functions – Group theory – Numerical differentiation and integration – Interpolation – Numerical solutions of ordinary differential equations.

<u>Classical and Quantum Mechanics</u>: Mechanics of a particle and system of particles – Conservation of laws – Rutherford's scattering formula – Special theory of relativity – Dynamical systems. The Schrodinger equation – Particle in a infinite and finite square well – Harmonic oscillator – Barrier penetration – Hydrogen atom – Perturbation theory and scattering theory.

<u>Statistical Physics</u>: Laws of Thermodynamics – Thermodynamic functions – Maxwell's laws – Phase transitions – Canonical ensembles – Specific heat of ideal gas – Bose – Einstein and Fermi-Dirac statistics – Specific heat of solids.

<u>Atomic and Molecular Physics</u>: Atomic spectra - Quantum numbers – Fine, Hyperfine structure – LS coupling – Bonding in molecules – Molecular spectra – Xray spectra – Spontaneous and Stimulated Transitions – Lasers.

<u>Nuclear Physics</u>: Nuclear binding energy – Nuclear models – Radioactivity – Decay processes – Nuclear reactions – NMR and MRI – Radiation damage – Radiation detectors – Uses of ionizing radiation – Classification of particles – Particle accelerators – Interaction of radiation with matter.

<u>Electromagnetic Theory and Optics</u>: Electrostatics – Gauss's Law – Electric potential – Capacitance and dielectric s- Hall effect – Biot-Savart Law – Ampere's law – Faraday's law – Lenz's law – Eddy currents – Maxwell's equation – Poyntings theorem – Wave equation – Polarization – Diffraction – Interferometry – Optical activity.

<u>Semiconductor Devices and Circuits</u>: PN junction diode – Zener diode – MOSFET – LED and LCD – Op-amp mathematical operaion circuits – oscillators – multivibrators – Electronic logic circuits – Semiconductor gates – Different logic circuits – Combinational and Sequential logic circuits – Memory – Clock circuits – Modulation and demodulation – Transducers and electronic instruments.

<u>Solid State Physics</u>: Crystal structures – crystallography – Chemical bonding – crystal imperfections – Electron theory of solids – Band theory of solids – Dielectric properties and materials – Clausius – Mosotti equation – Dielectric loss and breakdown – Magnetic materials – Weiss theory – Ferrimagnetism – Superconductivity – Photoconductivity – Ceramic and biomaterials – Nonlinear materials – Shape memory alloys.

A) ORGANIC CHEMISTRY

- 1. Structure and bonding Aromaticity Inductive effect Hyper conjugation-Tautomerism
- 2. Streochemistry
- 3. Formations and reactions of carbo cations, carbanions free radicals carbenes-Nitrenes.
- 4. Photochemistry and Pricyclic reactions, Singlet and triplet states Norish type 1 and 2 cleavages - Intramolecular rearrangements-Cyclo additions - Sigmatropic reactions-Electrocyclic reactions
- 5. Acids and bases Effect of structure on the strength of acids and bases
- 6. Substitution reactions Aliphatic nucleophilic and electrophilic substitutions-Aromatic nucleophilic and electrophilic substitutions - Free radical substitution
- Addition reactions Addition to carbon-carbon multiple bond Nucleophilic addition - Electrophilic addition - Free radical addition-Addition to carbon – hetero multiple bond
- 8. Eliminations E2, E1, E1cB mechanisms
- 9. Rearrangements Nucleophilic rearrangements-Electrophilic rearrangements -Free radical rearrangements
- 10. Oxidation and reductions Mechanisms
- 11. Spectroscopic identification of organic compounds and intermedicates Uv-Vis-IR-NMR-ESR-Mass spectroscopy

B) INORGANIC CHEMISTRY

- 1. Structure of atoms and molecules Covalent bonding in diatomic molecules Inorganic structures and bonding- Symmetry and molecular orbitals
- 2. Condensed phases Dipole moments-Intermolecular interactions Ionic bonding and structure of solids Dynamic processes in inorganic solids
- 3. Acids and bases Chemistry in non aqueous solvents
- 4. Chemistry of elements Chemistry of metallic elements Organometallic compounds of the main group elements Chemistry of the non metallic elements
- Chemistry of coordination compounds Ligand field and molecular orbital theories UV-Vis, IR - NMR, ESR Spectra of coplexes - Composition and stability of complexes -Synthesis and reactions of complexes – Isomerism - Complexes containing M-C and metal – metal bonds
- Radioactivity Radioactive disintegration Detection of nuclear radition Properties of radioactive rays - Radioactive series - Nuclear stability - Artificial radioactivity – Nuclear isomerism-Nuclear reactors

C) PHYSICAL CHEMISTRY

- 1. Fundamental concepts of thermodynamics Heat-Work Internal energy Enthalpy First law of thermodynamics State functions Thermochemistry Entropy and second law of thermodynamics Third law of thermodynamics.
- 2. Real gases Compression factors equation of state Critical statte Law of corresponding state.
- 3. Chemical kinetics Determination of rate laws Temperature dependence of reaction rates Activation energy for complex reactions.
- 4. Electrochemical cells Galvanic cells Thermodynamics of galvanic cell Reversible and irreversible cells concentration cells Liquid junction potential.
- 5. Surface chemistry Thermodynamic aspects Adsorption of gases on solids Colloids and catalysis.
- 6. Solutions Partial molar quantities Thermodynamics properties of ideal solutions Colligative properties ionic equilibria.
- Quantum mechanics Black body radiation Energy quantization Photoelectric effect

 Bohr's theory of hydrogen atom de-Broglie hypothesis Uncertainity principle Quantum mechanics Time independent Scrodinger equation Particle in a one dimensional box Particle in a three dimensional box Degenaracy Operators One dimensional harmonic oscillator Rigid rators Approximations Hermitian operators.

4. M.Phil. ENGLISH

- 1. British Literature
- I) The Age of Chaucer
- II) The Elizabethan Age
- III) Shakespeare
- IV) The Neoclassical Age/ Restoration/ Augustan Age
- V) The Romantic Age
- VI) The Victorian Age
- VII) The Modern Age up to the present
- 2. American Literature
- I) The Puritan Age
- II) The Age of Reason
- III) The Romantic Age/ Gothic Age
- IV) The Transcendentalists
- V) Age of Realism
- VI) Age of Naturalism
- VIII) The Modern and Postmodern Age -up to the present (including African American Literature)

- 3. Indian Literature in English and Post Colonial Literatures
 - I) Indian Literature in English
 - II)
- a. Pre- independence literature Toru Dutt, Henry Derozio, Romesh Chander Dutt, Tagore, Aurobindo, Sarojini Naidu, Gandhi, Nehru, Mulk Raj Anand, R. K. Narayan, Raja Rao, etc. -8-
- b. Post independence literature
 - i. Poetry- Ezekiel, Ramanujan, Moraes, Parthasarathy, Kamala Das, Kolatkar, Daruwalla, Mahapatra etc
 - ii. Drama- Vijay Tendulkar, Girish Karnad, Badal Sircar, Asif Currimbhoy, Mahesh Dattani, Manjula Padmanabhan, etc
 - iii. Fiction- Manohar Malgonkar, Khushwant Singh, Sashi Deshpande, Arun Joshi, Kamala Markandeya, Bhabani Bhattacharya, Arundhati Roy etc
 - iv. Writing of the Diaspora Meena Alexander, Bharathi Mukherjee, Anita Desai,
 V.S. Naipaul, Amitav Ghosh, Salman Rushdie, Vikram Seth, Kiran Desai,
 Jhumpa Lahiri, Chitra Banerjee Divakaruni, Rohinton Mistry etc.
- III) Writers from England on Colonial / Post colonial themes Rudyard Kipling, E.M.Forster, Paul Scott, J.G. Farrell etc.
- IV) Literature in English from the Subcontinent Pakistan, Sri Lanka, Bangla Desh (Bapsi Sidhwa, Sara Suleri, Hanif Kureshi, Michael Ondaatje, Carl Muller etc.)
- V) Literature in English from Africa (Chinua Achebe, Wole Soyinka, Nadine Gordimer, Ngugi Wa Thiongo etc.)
- VI) Literature in English from Canada (Margaret Atwood, Alice Munro etc.)
- VII) Literature in English from Australia, New Zealand (Judith Wright, A.D. Hope, Patrick White, Katherine Mansfield etc.)
- VIII) Literature in English from West Indies (Derek Walcott, Jean Rhys, etc.)
- 4. Literary Criticism
 - I Classical Criticism (Aristotle, Plato, Socrates, Horace, Longinus etc.)
 - II Criticism during the Romantic Age (Wordsworth, Coleridge, Shelley etc.)
 - III Neoclassical Criticism (Dryden, Pope, Johnson etc.)
 - IV Criticism in Victorian Age (Arnold, Pater, Swinburne etc.)
 - V Criticism in Modern Age (Hermeneutics, Psychoanalytic criticism, Structuralism, Russian Formalism, New Criticism, Marxism, Phenomenology, Feminism, Reader Response)
 - VI Criticism in the Post Modern Age (Post Structuralism, Post Modernism, New Historicism, Eco Criticism, Cultural Materialism)
 - VII Indian critical heritage Theories of Rasa and Dhvani, Alankara Shastra. Tamil Tradition – Tholkappiyam
- 5. Linguistics & ELT
 - I Linguistics language and communication human and animal language speech and writing competence and performance langue and parole
 - II Linguistic Analysis Phonetics Phonology Morphology Syntax -Semantics - Discourse
 - III Grammar Phrase Structure Grammar Transformational Generative Grammar IC Analysis
 - IV Sociolinguistics
 - V Applied Linguistics
 - VI History of English Language Teaching
 - VII Methods and Approaches