

The Board further decided to reappoint Mr. E. Dobson as part-time lecturer on civil engineering for the year 1890. A Committee is now engaged in considering the subject of scholarships, exhibitions, and certificates, in connection with the School of Engineering and Technical Science. The work is being carried on in one of the lecture-rooms of the college. The subject of the lectures, and the numbers attending the classes, are shown in the following statement:—

Statement of Lectures delivered at the School of Engineering, first term, 1890. [The attendance in each case is given in brackets]:—

First year's lectures: 14 (30) on freehand drawing, consisting of short lectures on constructive details, and sketching of same by students; 14 (31) on practical geometry, P. and S., a preparation for mechanical drawing; 12 (17) on the steam-engine (first course); surveying, nil.

Second year course: 14 (2) on mechanical drawing; 13 (14) on applied mechanics; 14 (3) on building construction; 14 (1) on principles of civil engineering; 14 (1) on surveying.

Mechanical and Civil Engineering.—First Year: (a.) Freehand drawing (Monday, 7 to 9), for mechanical and civil students—Sketching from diagrams, models, and machines; sketching and instruction in the design of standard constructive details; sketching to scale. (b.) Practical geometry (Wednesday, 7 to 9), for mechanical and civil students—Use of drawing instruments, practical plane geometry, practical solid geometry, practical projection and expansion of surfaces. (c.) The steam-engine (Friday, 8 to 9), theory of, and practical construction, for mechanical students—Early forms, improvements of Watt, theory and nature of heat, conversion of heat into work, experiments of Rumford, Davy, and Joule, total heat of evaporation, condensation of steam, expansion of gases, expansion of steam, distribution of steam in the cylinder, valves and valve gear, Leuner's diagrams, the steam jacket, the compound engine, triple expansion engines, the indicator; nominal, indicated, and brake horse-power, governors and details considered; various types of stationary, marine, and locomotive engines, types of boilers, proportion of boilers, design and calculation of strengths, construction of boilers. (d.) Surveying (Tuesday, 7 to 8; Saturday, 3 to 5), for civil engineering students—Mensuration, field work with the chain, setting out figures.

Second Year: (a.) Mechanical drawing (Monday, 7 to 9; Wednesday, 7 to 9), for mechanical and civil students—Elementary mechanical drawing, pencil and ink. (b.) Applied mechanics (Thursday, 8 to 9), for mechanical and civil students—Force, matter, velocity, energy, inertia, work, mechanical powers, reduplication, differential motions, wheels in trains, aggregate motion, link work, parallel motion, conical pendulum, the governor, centre of gravity, angle of repose, friction, equilibrium and pressure of fluids, pumps, hydraulic machinery. (c.) Surveying, for civil engineering students—Systems of survey, traversing with chain and theodolite, keeping field-books, plotting surveys, map drawing. (d.) Building construction, for civil engineering students—General principles in relation to materials, foundations, walls, beams, arches, floors, and roofs. (e.) Principles of civil engineering, for civil engineering students—General principles of laying out roads, railways, canals, and channels for drainage and irrigation.

Third year: (a.) Mechanical drawing, for mechanical and civil engineering students—Mechanical drawing from sketches, drawing, office practice, production of working drawings, designing. (b.) Strength of materials (Applied Mechanics, continued), for mechanical and civil engineering students—Tensile, compressive, shearing, transverse, and torsional stress; elastic strength, absolute strength, modulus of elasticity, permanent set, riveted joints, pin joints; strength and construction of pillars, beams, roofs, girders, and trusses; deflection, wrinkling, strains, bursting and collapsing load of tubes, fatigue of materials, factor of safety. (c.) Elements of mechanism and mechanics of machinery, for mechanical students—Machines, constrained motion, virtual centre, centrode and axode, link work, spur wheel, trains, wheel teeth, epicycle gearing, screw gearing, cam trains, ratchet and click trains, parallel motions, crank and connecting rod, relative velocities, momentum, moment of inertia, the fly-wheel, the universal joint, the ball and socket, bearings and pivots, belt gearing, rope gearing, friction in machines, machine detail and construction. (d.) Surveying for civil engineering students—Minor triangulation, topographical surveying, telemetry and use of plane table, river and marine surveying, sections. (e.) Building construction, for civil engineering students—Constructive details in carpentry, joinery, and masonry, bridge and roof construction, principles of constructive design. (f.) Principles of civil engineering, for civil engineering students—Road and railway construction, river conservation and improvement, ship canals, harbour works, lighthouses.

Fourth year: (a.) The steam engine, for mechanical students—Advanced theory of, practical experiments on steam-engine and boiler tests by students. (b.) Materials and resistances, for mechanical and civil students—Practical experiments on, by students. (c.) Naval architecture, for mechanical students—Displacement, buoyancy, stability, propulsion by steam and sail, wave line theory, Froude's experiments, designing, laying off, fairing; construction of ships in wood, iron, and steel, details. (d.) Surveying, for civil engineering students—Geodetic survey, primary triangulations, setting out Crown lands, engineering survey, gauging rivers, measurement of earthwork, altitudes by barometer. (e.) Building construction, for civil engineering students—Working drawings, specifications, contracts, taking out quantities, preparing estimates, supervision of work. (f.) Principles of civil engineering, for civil engineering students—Arrangement of railway-stations, street tramway, water-supply, warming and lighting, sewerage and surface drainage, telegraphs. (g.) Applied electricity, for mechanical students—Electric lighting, dynamo-electric machinery, arc and incandescent lamps, various systems of lighting, electric transmission of power, electric motors, storage of electricity, electric railways, electric propulsion of vessels, electro-plating, electric welding, &c.

With a view to provide for the proper accommodation of the students, whose numbers are increasing, the Board determined to erect additions to the college, with such facilities for the special needs of the school as the experience of the lecturer in charge might suggest. A contract for the work has been let. The new wing will provide all the accommodation required, and will be