

MELPAR-A-GRAPH

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MELPAR, INC.

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August 1964

In-Plant Courses Start September 14

Anyone for College Algebra? Trigonometry? Calculus? How about Principles of Electronics?

It's that time of year again! And at the tag end of a lazy, hazy summer it's rather nice to anticipate the bracing air of autumn outdoors and of the classroom indoors.

For the ninth year, Melpar employees are afforded the convenience and economy of taking college credit courses in the plant after regular working hours. George Washington University is offering five mathematics courses, and American University one physics course. Information on the individual courses is given at the end of this article. All courses are offered subject to sufficient enrollment.

Classes start the week of September 14.

Registration

Registration is scheduled for Wednesday, September 9. Representatives of George Washington and American universities will be in the Main Conference Room of the Falls Church plant from

8:30 to 9:30 on the morning of September 9. From 10:30 to 11:30 they will be in the training classroom of the LP #2 plant to accept registrations from employees at the Leesburg Pike, Hardin Street, and Bailey's Crossroads buildings. Employees at Shirley Highway locations may register at either Falls Church or LP #2.

Tuition

Tuition is \$27 per credit. Each course offered carries three credits, and so each costs \$81. You may pay the total amount at registration, or one-third at registration and the remainder in two equal installments. Tuition payments are to be made by check or money order—no cash, please!

There are only a few days between registration and the start of classes. If you plan to take an in-plant course, make the fact known on registration day. Don't delay or you may find that the course has been cancelled because of apparent lack of interest.

While we're on the subject of interest,

(Continued on Page 4)

Physical Electronics Lab Continues R&D On Thin-Film Circuits

The Department of the Navy recently awarded Melpar an R&D contract for continuation of a five-year old program for the development of high-temperature, radiation-resistant thin-film circuits.

The ultimate objective of this program is to develop a technique for forming complete thin-film circuits and systems in which electronic-circuit elements are integrated in a material matrix to a point where they lose their individual appearances. The circuits are to be capable of operating at 500 degrees centigrade, and should possess a high degree of radiation resistance. The objective is to be achieved by making studies of film and micro-crystal formation, surface and interfacial phenomena, and geometric configurations, with a view to using to maximum advantage the physical effects that occur in thin films.

Many of the goals of the program, including highly radiation-resistant components, have already been achieved. The work, for the Bureau of Naval Weapons, is being directed by Dr. Charles Feldman, Manager of Melpar's Physical Electronics Laboratory.

Covington Heads Systems Analysis Laboratory



W. O. Covington

Melpar since 1962. His work here has been principally in analysis, preliminary design, and systems effectiveness evaluations of advanced aerospace systems.

Before coming to Melpar, Mr. Covington was Acting Manager of Preliminary Systems Design at the Advanced Development Laboratory of the Raytheon Missile and Space Division. Earlier he was with Space Technology Laboratories, and still earlier, with American Machine and Foundry Company.

An Air Force officer for five years, he spent two years of his military service as a project engineer at Wright Air Development Center in the Inertial Systems Section of the Guidance Laboratory.

Mr. Covington received the B.S.E.E. from North Carolina State University and the M.S. from Massachusetts Institute of Technology. He is a member of AIAA and IEEE and an associate member of Sigma Xi, pure and applied science honor society.

The appointment of William O. Covington as Head of the Systems Analysis Laboratory, Aerospace Division, was announced July 13 by Leonard J. King, Manager of the Aerospace Division.

Mr. Covington was formerly a consulting project engineer in the laboratory he now directs. He has been employed at

Melpar to Develop Methane Detector Device Under AEC Contract

Melpar recently announced the award of a contract from the U. S. Atomic Energy Commission (New York Operations Office) for design, development, and fabrication of a methane ionization detector.

The device will be suitable for attachment to explosion-proof mining machinery for use in coal mines. The ruggedized device will be capable of detecting methane gas in concentrations down to 0.5 percent, and of triggering warning devices at concentrations of one and two percent. Provision will also be made in the device for eliminating the effects of temperature variations and of water vapor and other contaminants common to mine operation.

SUPERVISORS' FORUM

This is the first of two articles on Melpar's pension plan. It was written by Larry Shaw, Assistant to the Personnel Manager.

Q: What is an employee's compulsory retirement date?

A: The first day of the month next following his 65th birthday.

Q: As a member of the pension plan, what pension would I receive upon retirement at age 65?

A: That question cannot be answered until the total amount of your contributions is known. However, as a guide to your planning, under the pension plan that went into effect in 1960, you will receive in every 18-month period an amount equal to your total contribution. Thus, if your contributions total \$3600, you will receive \$200 ($3600 \div 18$) each month for life.

Q: Does the plan permit any options in lieu of normal pension payments at normal retirement date?

A: Yes. There are options for earlier retirement or for a life income to a beneficiary after the employee's death. An option must be elected prior to retirement and each carries with it a reduced monthly income during the employee's lifetime because of the probability of longer duration of payments.

Q: Who is eligible to join the pension plan?

A: Any permanent employee with one year or more continuous service.

Q: What determines the amount of my contribution each payday?

A: It is tied to the base of the Federal Social Security Act. Currently an employee contributes at the rate of $1\frac{1}{2}\%$ on the first \$4800 of his annual earnings and at the rate of 3% of earnings in excess of \$4800. Beginning January 1, 1965, the Social Security base increases to \$5400. Thereafter, the employee will contribute $1\frac{1}{2}\%$ of the first \$5400 of his annual earnings and 3% of earnings in excess. The tie-in to the Social Security base does not mean deductions are established by Federal mandate but rather that deductions are held to a lower level while Social Security deductions are being collected from your paycheck.



SERVICE PINS AWARDED. Employees completing 10 or 15 years of service with Melpar in July or August were honored at a lunch in the cafeteria on August 19. Each received a shiny new service pin from the head of his operating unit (or from a representative of the head of the unit).

Seated around the table clockwise from the left are Lincoln Brown, Vice President, Contract Management; Robert G. Zelloe, 10 years; John J. Adams, 10 years; Albin F. Saphonchak, 10 years; Dorothea R. Johnson, 10 years; Dr. Leo A. Schmidt; Ted M. Dobson, 10 years; Milton J. Fivel, 15 years; William C. Purple, Vice President and General Manager; John W. Elig, 10 years; Stephen V. Covalleski; Joseph T. Gordon, 10 years; Robert G. Murrell; Wyndam F. Clifton, 10 years; Clarence M. Meacham, 10 years; and John J. Rooney, 15 years.

Others who rounded out 10 or 15 years service, but could not attend the lunch, were Louis Nielsen, 15 years, and William E. Anderson, Edwin M. Galloway, Thomas W. Glass, Pauline Markham, George C. Moreland, and Louise Yawornicky, all with 10 years' service.

S. M. Sjosten to Speak At Two Seminars

Stanley M. Sjosten, Comptroller at Melpar, will be one of the guest speakers at the American Management Association's five-day seminar on the subject of PERT/COST at AMA Headquarters in New York City, September 14 through 18. The speakers will explain applications of the PERT/COST system.

Mr. Sjosten will participate in the fourth session, on Thursday, September 17. He will discuss various aspects of PERT/COST requirements relative to industry implementation, as covered in the National Security Industrial Association's "Report of PERT, PERT/COST and Line of Balance Ad Hoc Committee." The report was submitted to the Government's PERT and Line of Balance Coordinating Groups under date of April 1, 1964. Mr. Sjosten was Chairman of the industry-wide NSIA Ad Hoc Committee which developed this report after a year-long study.

The AIMA seminar will be attended by project managers, analysts, cost specialists, controllers, and other executives concerned with project control.

Mr. Sjosten will also speak at a seminar in Washington, D. C., during the last week in September, when The American University Center for Technology and

Administration presents The Institute on Management of Government Contract Research and Development. The purpose of the seminar is to examine the major operational problems in dealing with the Government as a customer for research and development.

Mr. Sjosten will talk on "The Problem of Cost Accountability and Cost Control Relative to Administration of Government Contracts." He is a member of the advisory committee of the Institute, of which Ralph I. Cole of Melpar is Director.

Attending the seminar will be engineering executives, policy administrators, operational staffs, research and development directors, and operational analysts.

Purchase Plan for Personal Safety Equipment in Effect

Melpar employees can now buy safety equipment for personal use through payroll deduction.

The first items to be made available are safety glasses, plain or prescription, clear or tinted. They come in attractively styled frames, suitable for general wear and are very reasonably priced.

Anyone wishing to buy them can get the necessary form at the nearest dispensary or safety office.

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Fairfax Facts

Fairfax County, Melpar's Northern Virginia home, is an area rich in history and in promise. Here are random facts gleaned from *The Citizen's Handbook*, prepared by the county's Division of Information and published this month:

Fairfax County was formed in 1742 from Prince William County and named in honor of Thomas, Lord Fairfax, Sixth Baron of Cameron.

The original wing of the present courthouse was begun in 1799, when the county seat was moved from Alexandria to Fairfax. In the office of the County Clerk can be seen the original wills of George and Martha Washington, as well as a probated copy of the will of George Mason, author of the Bill of Rights.

When the British set fire to the White House and Capitol during the War of 1812, President Madison and his cabinet retired to Salona, a home near McLean, taking with them many valuable documents.

The first casualty in the Civil War occurred just off the present courthouse grounds on June 1, 1861. Capt. John Quincy Marr, commanding the Warrenton Rifles, was killed in a brief skirmish with Federal troops. Fairfax County was the scene of many subsequent engagements of that war.

By the turn of the century, the county had a population of 18,580 but it could still be regarded as entirely rural. In 1920 the population was 21,100, of whom 81 percent depended directly on farming for a livelihood.

The population spiral started with the outbreak of World War II. The years since then have seen an astonishingly rapid transition from farmland to a vast and busy suburbia. Population jumped from 41,000 in 1940 to 98,000 in 1950. Since 1950 it has increased by 223 percent, to 317,000 persons.

The future holds even more growth. It is estimated that the population will reach 1,000,000 by the year 2000. The county is making careful plans to ensure that this growth will be orderly.

Call for Papers

The Symposium of Unmanned Exploration of the Solar System, sponsored by the American Astronautical Society, will take place February 8-10, 1965, in Denver, Colorado.

A limited number of papers will be accepted, on such topics as life-science objectives in solar-system exploration; space electronics; and space communications and data handling.

Can We Get More Distance Out of the Travel Dollar?

Every month about 325 out-of-town business trips are made by Melpar employees. Some of the trips are in connection with contractual work, and are charged to the customer. Others are for professional meetings, briefings by potential customers, and the like, and are charged to overhead (almost a half million dollars of 1964 overhead money is earmarked for travel).

Whatever its purpose, travel takes a sizable chunk of the customers' and the Company's funds. So it's a prime target for efforts to cut costs and increase efficiency and so strengthen Melpar's competitive position. No one is suggesting that our travelling men now live in the lap of luxury. It's just that by giving thought to the matter, they may be able to make the travel dollar go farther.

When you're planning a business trip, or you're on one, consider these questions and see if you can't trim expenses.

Is this trip necessary? The obvious question gets the obvious answer—Yes!—nearly always. Still, a well-conceived letter or timely phone call *might* accomplish as much as a visit.

GOING UP!

Congratulations and best wishes for continued success to the following, who won promotions in July:

Robert M. Anderson, Engineering Assistant; Robert R. Beck, Design Engineer; and William O. Covington, Laboratory Manager.

James Cretsos, Head, Technical Information Center; E. Roger Elgin, Fiscal Auditor; and John W. Liskowitz, Senior Chemist.

Regis P. Mader, Junior Electrical Engineer; Melvin M. Scott, Senior Administrative Assistant; and Howard A. Straight, Principal Engineer.

Jack E. Thoensen, Senior Mechanical Engineer, and Seymour S. West, Branch Supervisor.

Abstracts (500-1000 words) are due by Nov. 2, 1964. After they have received internal Melpar clearance in accordance with Procedure PER-11, they may be sent to R. G. Fleddermann, A-266, Martin Co., P. O. 179, Denver, Colorado 80201.

Can you go solo? Team spirit is great, but it can be overdone. Too often, a group of people go to a briefing or conference that might well be covered by one.



Is this troop necessary?

Since there's only so much money available for travel, it follows that other, equally important meetings may have to be missed. Spreading attendance thinner and more widely would bring greater benefits.

Can you make the trip in a single day? If your business is in a city with good airline service, you may be able to go and come on the day of the meeting, instead of going the day before and returning the day after. At stake is much more than your expenses for a couple of days—the efficiency of your organization. Without you, your unit can't operate as well as it should.

Do you really have to rent a car? Once at your destination, if you can get around conveniently in taxicabs, why not do so and pare a few dollars off the bill?

If you've changed your plans, have you cancelled your reservations? A motel reservation generally guarantees payment unless it is cancelled a certain time ahead. It's easy to forget to cancel, but it's also the sheerest waste.

These questions suggest a few of the ways to get more distance per dollar. Melpar is loaded with inventive types who will surely be able to come up with many more ways. Remember, no saving is too small to be ignored!

In-Plant Courses

(Continued from Page 1)

the Personnel Department welcomes your suggestions on course offerings and will do everything possible to arrange for in-plant courses in technical/scientific subjects in which a sufficiently large number of employees (15 or more) declare their interest. They can declare their interest by calling extension 2350.

Courses

The title, credits, prerequisites, time, and place of each of the George Washington University courses offered in plant are as follows:

Math 3, College Algebra, 3 semester hours. Prerequisite: one year each of high school algebra and high school geometry. Class schedule: 5:15-6:30 p.m., Mondays and Wednesdays, in cafeteria of Falls Church plant.

Math 6, Plane Trigonometry, 3 semester hours. Prerequisite: Math 3, or two years of high school algebra and one year of high school geometry. Class schedule: 5:15-6:30 p.m., Tuesdays and Thursdays in cafeteria of Falls Church plant.

Math 21, Calculus I, 3 semester hours. Prerequisite: Math 3 and 6; or two years of high school algebra, one year of high school geometry, and one-half year of high school trigonometry; or the equivalent. Class schedule: 5:15-6:30 p.m., Mondays and Wednesdays, in Engineering Conference Room of Falls Church plant.

Math 23, Calculus III, 3 semester hours. Prerequisite: Math 22 (Calculus II). Class schedule: 5:15-6:30 p.m., Tuesdays and Thursdays, in Engineering Conference Room of Falls Church plant.

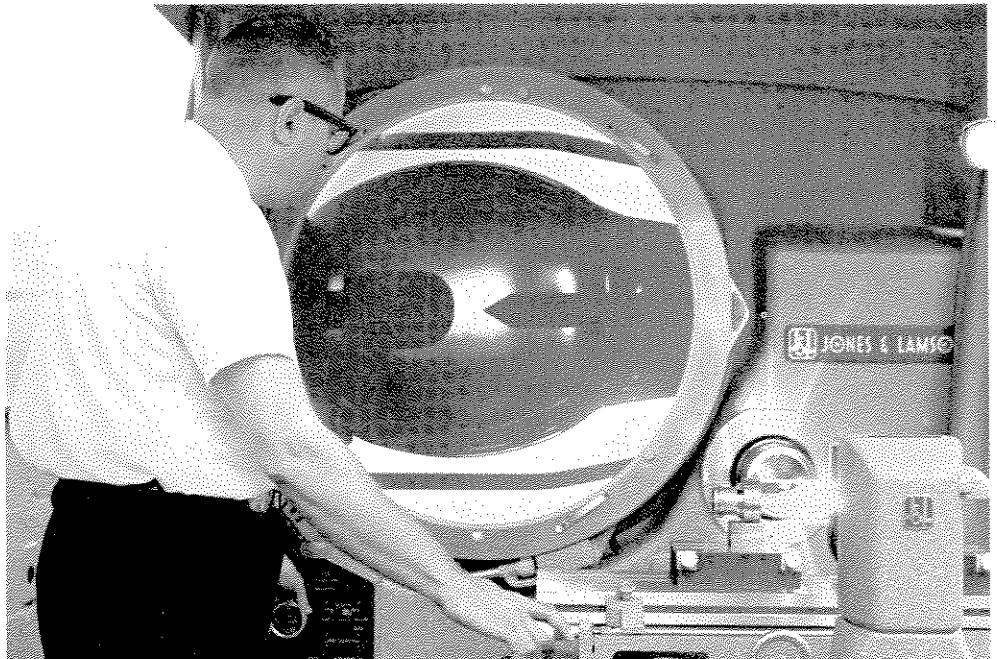
Stat 101, Basic Principles of Statistical Methods, 3 semester hours. Prerequisite: one year of high school algebra or permission of the instructor. Class schedule: 5:15-7:45 p.m., Thursdays, in the conference room of Shirley Highway Engineering.

The American University physics course is for graduate students and for advanced undergraduates:

051.554 MP, Principles of Electronics, 3 semester hours. Prerequisite: Permission of the instructor. Class schedule: 5:15-7:45 p.m., Thursdays, in the Main Conference Room of the Falls Church plant. Course description: Fundamental principles of vacuum tubes, semiconductors, and transistors, with applications to amplifiers, oscillators, and power supplies.

Tuition Reimbursement

The Melpar Educational Reimbursement Plan applies to all courses listed above. Application for reimbursement must be made by the individual employee on Melpar Form PER-211 (Revised 8/63). The form should be approved by the applicant's supervisor and all three copies forwarded to the Personnel Manager before registration. Textbook costs are not reimbursable.



BLOWING THINGS UP IN PROPORTION. New on the Melpar scene is this Jones & Lamson Epic 30 optical comparator. The machine casts greatly magnified but extremely accurate images of objects on its 30-inch screen. It was recently acquired by the Quality Control Department and is used by Q.C. Shop Inspection, of which Scott Auer (in photo) is foreman.

The comparator, the only one of its type in the Washington metropolitan area, enables Q.C. to take accurate measurements on objects that do not lend themselves to direct measurement. For example, one job in the house requires Shop Inspection to measure the distance between the cathode and the anode of a lamp enclosed in a quartz envelope. As shown above, the lamp is mounted on the work table, and the projection system casts an accurate image of the lamp on the screen. The screen is graduated for fast direct reading of dimensions. The magnification shown in the photo is only 10X; the comparator is capable of 200X magnification.

Photo by Sakamoto

Capt. Lore Directs AF Audit Office

New head of the Air Force Audit Office at Melpar is Capt. Joseph P. Lore, USAF. He replaces Maj. Ellis R. Smith, who has been transferred to Plans and Programs, USAF Auditor General's Headquarters, in Washington, D. C.

A graduate of St. John's University in New York City, Capt. Lore is a Certified Public Accountant in New York State. He recently returned from a tour of duty in Germany, where he was Assistant Branch Chief, Contracts, Rhein/Main Branch Office.

Capt. and Mrs. Lore and their daughter are now living in Fairfax.

Washington World Features Melpar

Melpar is the subject of an article in the August 17 issue of *Washington World*, a monthly magazine devoted to life in the national capital area. The article features Melpar as the biggest of the "idea industries" that have made Washington the site of some of the most sophisticated R&D projects in the nation.

Aside from a reference to Washington's impressive array of smokeless industries, the article deals entirely with Melpar. It

Roe Addresses Annual ABA Meeting

Austin G. Roe, House Counsel at Melpar, delivered a talk at the American Bar Association Annual Meeting held in New York City on August 9, on the subject "Legal Requirements of Cost Disclosure and Their Effect on Profits." This was part of the general topic on "The Law and Profits on Government Contracts" sponsored by the ABA Public Contracts Division.

Other speakers included Graeme C. Bannerman, Deputy Assistant Secretary of Defense; L. Hartwig, Chairman of the Renegotiation Board; and Ralph Nash, GWU Law Professor. Panelists included R. Beech, NSIA President, R. F. Keller, G.A.O. General Counsel, and B. Moritz, N.A.S.A. Assistant General Counsel.

touches on the Company's recent accomplishments, its management policies, and some of the 400 plus projects in which Melpar is now engaged, projects ranging from spacecraft simulation to studies of the particles of a comet's tail.

Accompanying the article are a bird's eye view of Falls Church headquarters and a sketch of the Environmental Test Laboratory under construction at Ravensworth Industrial Park.