

Contents

HCC Classes
Biopesticides
Tree Guide Available
The Root of the Matter
Invasive Species
Pesticide Potpourri
Xeriscaping
Changing CEU Requirements
New Aerial Manual
New Pesticide License Category
Plant Selection & Care
Heat Stress or Pesticide Poisoning?
Yet Another New Pest
Local Events
State Events
Interesting Websites

Horticulture Classes Start at HCC

A new semester of classes will start soon at Hillsborough Community College. There are 3 different evening classes at the Plant City Campus, one evening class at the City of Tampa Parks Dept on North Blvd (across from Lowry Park), and one weekend class at the Plant City Campus on Saturday. To enroll in any of these classes, here are the steps to follow: First, apply for admission - preferably well before the registration dates. Second step - register for the class you want at any campus of HCC, either through early registration (Aug 16 for returning students and Aug 17 for new students), or you can register in the class on the first night of class (Except the Lowry Park class). Call Joan Raynor at 757-2112 for questions or more information. *(Note: Having been through this program myself, I can tell you that these are excellent classes, taught with a very "hands-on" approach. Anyone in any part of the production, installation or maintenance phases of the horticulture business would benefit from this program. Dave)*

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dkp@gnv.ifas.ufl.edu

Horticulture Classes - Fall Semester 1999					
Course Name	Course Number	Section Number	Meeting Days	Meeting Times	Location / Room #
Horticulture Science	HOS 1030 (3 cr. hrs.)	07681	M & W	5:30-6:45	FSC-109*
Plant Identification	ORH 1510 (3 cr. hrs.)	07682	M	7-9:50pm	FSC-109*
Irrigation & Water Mgmt.	ORH 1820 (3 cr. hrs.)	07683	W	7-9:50pm	FSC-109*
Plant Propagation	ORH 1021 (2 cr. hrs.)	07686	S	8-9:50am	FSC-109*
Plant Propagation Lab	ORH 1021L (2 cr. hrs.)	07687	S	10-1:50pm	FSC-109*
Soils & Fertilizers	SOS 1102 (3 cr. hrs.)	07685	T & Th	5:30-6:45pm	Lowry Park

* FSC-109 is Room 109 in the Florida Studies Center - at the corner of Park Blvd and Cherry

Biopesticides...The Latest Technology

by Dave Palmer

(Much of this article will either sound like "Ripley's Believe it or Not", or science fiction, depending on your point of view - but I assure you every thing here is true - Dave).

Biopesticides aren't new - **Bt** or **Bacillus thuringiensis**, a.k.a. Dipel or Thuricide or many other brand names, has been around for decades - a workhorse against caterpillars but very safe, relatively speaking, for other organisms. Yet in the past several years there has been a revolution going on - in an unannounced, underground sort of way. Big companies have been buying small companies - or creating partnerships - attempting to jockey for position in the anticipated "biopesticides" market.

What, on green earth, is a biopesticide? I'm glad you asked. EPA defines it as "certain types of pesticides derived from such natural materials as animals, plants, microorganisms and certain minerals. The examples quoted on the EPA's Biopesticide home page are canola oil and baking soda which have pesticidal (!!) applications. Some of these products (the word chemicals doesn't seem to apply) are derived from other organisms - such as the product from Dow AgroSciences called **Conserve SC** which is derived from fermented bacteria.

The easiest way to classify these products is by the type of organism that is either in the product or that the product is derived from. The **microbial** products, for example are either derived from microorganisms or, in fact, contain living or dormant microorganisms. By the same token **botanical** products are derived from plants. An excellent example is **Nemastop**, a new product for nematodes that is derived from plant extracts and fatty acids in a water soluble liquid - said to disrupt the "root location mechanism" of parasitic plant nematodes and inhibit root penetration. Products that are naturally occurring substances or derived from them are simply called **biochemical** products. These products include pheromones that interfere with mating or molting, the process that insects use to shed their shell when they outgrow it. The products that fascinate me are the microbials. These are specific strains of fungus, bacteria, nematodes, or virus, or combinations of the above. **Bacillus subtilis**, for example is a beneficial soil microorganism that out-competes other invading pathogens. It is used to prevent and cure crown and root diseases and some products claim a 2 year shelf life. 2 varieties of **Bacillus**

subtilis
s are

among the 187 biopesticide active ingredients recognized by EPA. Other interesting products currently on the market include :

Beauveria bassiana - a beneficial soil fungus that secretes enzymes to dissolve an insects cuticle so that the fungus may invade the body of the insect

Candida oleophila: - a fungus (yeast) that out-competes disease organisms. Currently used to protect organically grown fruit

Trichoderma harzianum (and other species) a fungus said to control some soil pathogens and possibly some turfgrass diseases

Vector - a product consisting of bacteria-carrying nematodes that seek out and destroy fleas.

The pace of biopesticide research is increasing. From the beginning of 1999 through early June, 38 biopesticides have been registered with EPA. Many of these are agriculture related and registered for use as such. But remember that virtually all of the chemicals used by the turf and ornamental industry came from agriculture. Most of the information in this article came from biopesticide websites such as EPA's Biopesticide home page at: <http://www.epa.gov/pesticides/biopesticides/> and a huge biopesticide index at: <http://www.wisc.edu/entomology/mbcn/bcindex.html> also check out the various vendors websites.

*

E-mail your name, home address, business name , phone & fax numbers and the words "Growing Concerns" to get on our e-mail list.!! Mail to : dkp@gnv.ifas.ufl.edu

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'Good Tree Care' Guide Available

The Hillsborough Extension Service is pleased to announce the publication of "A Homeowners Guide to Good Tree Care" compiled by Bob Der, our county forester. This publication covers everything from selection, planting, fertilization, pruning, legal issues, and myths, plus a chapter devoted to palms. Intended mainly for the homeowner, commercial

interests will find that it is well-suited for training employees or as gifts to property managers or larger customers. For more information or to order, contact Bob Der 813-744-5519 x 106.

The Root of the Matter

Roots are the underground portions of plants. They absorb and conduct water and nutrients and provide physical support for the plant. While the functions of roots are fairly well known, our understanding of the root zone is still limited. Here is some basic information about roots.

There are two basic types of roots - woody and non-woody. Non-woody roots can be accurately described as "absorbing" roots rather than "feeder" roots. Their primary function is absorption of water and minerals. Non-woody roots are found mostly in the upper 6 to 12 inches of soil. They provide minimal support for the plant.

Woody roots are the large lateral roots that form at the base of the trunks. Woody roots provide the framework of the root system and transport, rather than absorb, water, minerals, and other materials and they also store carbohydrates.

Horizontal root spread has widely been misunderstood. Research has long since disproved the older concept that roots reach only to a tree's dripline. The spread of many tree species ranges from 1 ½ times the dripline distance (radius) to nearly 4 times the dripline distance. For a particular tree whose canopy is 30 feet wide, the distance to the edge of the canopy (dripline) is 15 feet. The roots of this tree can range from 22 feet to 60 feet **from the base of the tree!**

Root depth of plants and trees has historically been greatly exaggerated. Deep root systems are the exception rather than the rule. Insufficient oxygen in the soil usually prevents root depth below 48 inches or so. Most nutrient absorption occurs in the upper 48". Remember this fact the next time a customer asks about deep root feeding! Roots normally require 5% oxygen in the soil or more to survive. Construction activities such as paving can compact the soil, thereby reducing the oxygen level in the soil from 18% to 3% in some cases. (Source: "Getting to the Root of the Matter" in *Landscape, Floriculture, and Ornamental News* - #4 Oct, 1998)

Invasive Species Battle

Biologists estimate that more than 6000 exotic (foreign) species of plants, animals and insects have been introduced into the US from abroad by accident or misguided intentions. Non-native plants have already infested more than 100 million acres.

President Clinton has signed an executive order creating a new interagency Invasive Species Council, that will, within 18 months, is to develop a broad management plan to minimize the economic, ecological and human health impacts of these pests. The President's budget also calls for spending \$29 million on combating invasive species and on research to restore damaged ecosystems. (Source: *Florida Farm Bureau*)

Pesticide Potpourri

Ž The 1999 Index of Leading Environmental Indicators indicates that the degree of fear and pessimism concerning overall environmental problems in the U.S. may be somewhat unfounded. Specific individual problems should be taken seriously, but overall:

1) **The Perception:** Toxic chemicals in and on our food pose a serious threat to humans. **The Reality:** the release of toxic chemicals has declined by one-third since 1988, and the cancer risk they pose is minimal.

2) **The Perception:** Pollution is causing water quality to deteriorate and poses threats to human health. **The Reality:** "Point Source" pollution has decreased during the last 10 years. Discharges of toxic organics have declined 99% and discharges of toxic metals have declined 98%. The EPA reports that less than 1% of US lakes and less than 1% of US rivers and streams meet their criteria for poor water quality.

3) **The Perception:** We are destroying our natural resources faster than they can be replenished. **The Reality:** Each year the US plants more trees than it harvests. Since 1980, the US has experienced no net wetland loss.

4) **The Perception:** Air quality is worsening due to a rise in pollution levels and poses serious threats to human health. **The Reality:** Ambient air pollution levels have been decreasing steadily since 1970. The air quality in most metropolitan areas is also improving. The number of air quality health warnings decreased 66% across major US cities between 1988 and 1997. Lead in the air has been reduced 97% due to the introduction of unleaded gasoline. (Source: The Index of Leading Environmental Indicators, 1999 Pacific Research Institute, May 1999)

Ž A new system for the release of pheromones is based on an off-the-shelf Ford fuel injector nozzle. This system, in contrast to others, is capable of releasing a mixture of pheromones designed to disrupt insect mating. The system consists of a nozzle assembly and a 9-volt battery powered system that emits a burst of pheromone every three minutes (or as programmed) 24 hours a day. (IPM Net News, May, 1999)

Ž **Amdro Pro** (hydramethylmon) has modified its label to include management of fire ants for outdoor usages in airports, roadsides, cemeteries, school grounds, etc in multiple states including Florida. It may also be used indoors as a crack and crevice treatment.

Ž BASF has added use for outdoor plants to their **Sanmite** (pyridaben) insecticide label.

Ž Rhone-Poulenc's **Chipco-Proxy** (ethephon) growth regulator has received federal registration for use on turf areas (except residential turf) to suppress growth, thus reducing the frequency of mowing and the volume of clippings collected. (Source: *Chemically Speaking*, June 1999)

Basic Horticulture - Xeriscaping by Dave Palmer

One of the least respected and most misused words I know is Xeriscape™! It's pronounced "zer'-ah-scape". Say it with me "zer'-ah-scape". That's better - if I hear you pronounce it "zeroscape" one more time, I'm gonna scuff up your new boots. The other thing that gets my dandruff up is hearing someone say "That's a xeriscape™ plant - it's drought tolerant." What's wrong with that? I'm glad you asked! EVERY plant is a xeriscape™ plant! Read on as I explain.

The term xeriscape™ means "water conservation through creative landscaping." It DOES NOT mean "drought tolerant landscaping." The main concept behind xeriscaping is to group plants according to their water (and light) needs. In some sections of the landscape, called "oasis", we group turf and flowers and other plants that hate to run out of water and need more water than rainfall can provide. In other sections of the landscape, called "drought tolerant", we group plants that, once established, can survive on normal rainfall except during a severe drought. In another section of the landscape, called "natural", we group plants that, once established, can survive on rainfall alone - without any additional water at all. Therefore...

...ALL PLANTS ARE XERISCAPE™ PLANTS...

...because every plant will fit in one of the three groups described above. Eventually I hope that the term "xeriscape™" will fade away because all well designed landscapes will group plants according to their water (and light) needs. Then, I hope I never hear the word "zeroscape" again.

Attention All Pesticide Applicators: Some CEU Requirements are Changing

Revisions made by the Florida Department of Agriculture and Consumer Services last year to certification and licensing regulations for the Florida Pesticide Law (Chapter 487) affect Continuing Education (CEU) requirements for certain licensing categories. The changes do not apply to licenses issued for the Florida Structural Pest Control Law (Chapter 482). The changes include:

Ž The number of CEUs required to renew applicator certification in the **Aquatic** Pest Control Category has been increased from 8 to 16 CEUs.

Ž The number of CEUs required to renew applicator certification in the **Ornamental and Turf Pest Control** and **Regulatory Pest Control** Categories has been increased from 8 to 12 CEUs.

Ž The **Aquatic** and **Ornamental and Turf Pest Control** Categories may be renewed with 8 CEUs until January 1, 2000. The increased number becomes effective on that date. No changes were made in the required number of CEUs to renew certification in other categories.

Ž Also, starting January 1, 2000, applicators licensed in **all categories** established by the Florida Pesticide Law (except Aerial and Demonstration and Research) must earn a minimum of 2 general standards (Core) CEUs. Additionally, at least one-half of the CEUs required for a category must be earned in topics approved specifically for that category. Any remaining CEUs may be earned in general standards (Core) or category specific topics.

Ž Applicators who are licensed in **Aerial** and **Demonstration and Research** (considered secondary categories) must earn the required CEUs for the category in topics approved for the specific category.

(Source: *Chemically Speaking*, May 1999)

New Aerial Pesticide Training Manuals

Updated **Aerial** Pesticide Applicator Training Manual: The Pesticide Information Office has updated the **Aerial** Applicator training materials used by Florida aerial applicators to prepare for the state's aerial applicator pesticide certification exam. The existing manual has been completely revised. In addition, four other publications accompany the manual and are used as references for the exam. These include:

"Agricultural Aircraft Calibration and Setup for Spraying";

"Agricultural Aircraft Spreader Setup," by D. Gardisser, University of Arkansas;

"Aerial Pesticide Drift Management," by R.T. Noyes, D. Gardisser, and D.K. Kuhlman, Oklahoma State Univ.

"A Summary of Aerial Application Studies" by the Spray Drift Task Force.

The manual and the four publications are packaged together and are available from the University of Florida/IFAS Publications, P.O. Box 110011, Gainesville, FL 32611-0011. (800) 226-1764. The cost is \$15 plus tax. (Source: *Chemically Speaking*, May 1999)

New Pesticide Category From DACS

DACS has completed the rule-making process to establish a new applicator category - **Natural Areas Weed Management** - for those who use or supervise the use of restricted use herbicides to control unwanted vegetation to protect natural communities or conservation lands and natural areas. This category is valid for commercial and private applicators. Applicators doing this work and acting under another category may continue activities until renewal or expiration. As soon as the training materials and examination are developed, the new category will be implemented. Until this category is implemented, those needing this category should use the Forestry category. The **Natural Areas Weed Management** Category will require 16 CEU's to renew certification. (Source: *Memo from the Pesticide Information Office at UF in Gainesville 6-14-99*)

Plant Selection and Care

An excellent article appeared in the May 1999 issue of *Lawn and Landscape Magazine*. It was written by David Wright, the President of Kimberly Nurseries in Idaho. The points David

makes are just as true in Florida as in other parts of the country. The article reminds suppliers and installers that both knowledge of plants and knowledge of the care of plants are a necessary part of professional landscape installation.

A "well-rounded and open-minded knowledge of plants" is a primary requirement. This knowledge is not the sole responsibility of the supplier or nursery. The installer should have a good working knowledge of plants in general and a specific knowledge of the plant material suitable for our particular climate as well as a knowledge of planting site problems and requirements. Where does the installer acquire this knowledge? The Extension Service is the source of a great deal of information. Some areas have vocational or community colleges that offer excellent programs. In our area Hillsborough Community College has an excellent 2 year program in Ornamental Horticulture. HCC's program is an in-depth series of classes designed to prepare a student for a successful career in horticulture, whether in the production, installation, or maintenance industries. Other possibilities are local or state certification programs. Here in Florida, the Florida Nurserymen & Growers Association (FNGA) offers two excellent possibilities. The first is the Florida Certified Nursery Professional (FCNP) program which has been developed over the last 20 years. While this program was originally developed to train nursery workers, over the years the program has been broadened to include general business information, along with landscape design, installation and maintenance information. The retail nursery industry, especially the large chains, have jumped on the program to teach their employees the basic workings of plants in general, plus plant identification and selection. Those in the design, installation and maintenance business would do well to follow their lead. The other program offered by FNGA is the Florida Certified Landscape Contractor (FCLC) program. Again this is an excellent program that teaches and tests the basic skills necessary for contractors - business, estimating, construction, irrigation repair, and installation among others. This is the big brother of the FCNP program. But wait, there's a middle brother too - the Florida Certified Landscape Technician (FCLT). It's similar to the FCLC, but without the business components. It includes all the hands-on skills that installation companies are looking for.

A second area of knowledge that installers require is the care that plants receive in transit to and on the job site. If proper precautions are ignored, the plant material can arrive at the site struggling to survive. Enclosed vans offer the best protection. While on the job site, the plants must also be monitored. Too much water or too little water is the cause of most landscape plant problems. In many cases the site is extremely dry and actually draws moisture out of the rootball of freshly installed plants. The plants immediate survival depends on the water management details arranged by the contractor prior to departure.

The costs of keeping poorly trained employees include poor job quality, high replacement costs, a sagging reputation and lost business opportunities. Professional landscape installation contractors make sure their employees are trained employees. Contact HCC at 813-757-2104 and FNGA at 1-800-375-3642 (*Source: Lawn and Landscape Magazine, May 1999*)

Do You Know...

The difference between heat stress and pesticide poisoning?

When a pesticide applicator or handler becomes ill while working with any chemical in the organophosphate or carbamate families (dursban, diazinon, ficam, malathion, cygon, in fact, many of the commonly used pesticides) in a hot environment, determining whether that person is suffering from heat exhaustion or pesticide poisoning can be difficult. These illnesses share some similar symptoms, and combined problems of heat stress and pesticide poisoning may also occur. This chart compares and contrasts symptoms of these two problems. Just as in managing pesticide exposure, managing heat stress is the responsibility of both the applicator or handler and the company management. A heat exposure program should be in place and geared to protect all persons exposed. (Source: *Chemically Speaking*, October, 1998)

Yet Another New Pest

According to UF scientists, a new pest, the papaya mealybug has been found in yards and plant nurseries in Palm Beach, Brevard, Manatee and Hillsborough counties. State officials are recommending the mealybug destroyer, a commercially available ladybug, to fight infestations of papaya mealybugs. The new pests have not been found in the US outside of Florida. (Source: *Ornamental Outlook*, May, 1999, p8)

Heat Exhaustion Symptoms	Organophosphate / Carbamate Exposure Symptoms
Sweating	Sweating
Headache	Headache
Fatigue	Fatigue
Nausea	Nausea and diarrhea
Dry Membranes - Dry mouth - No tears - No spit present	Moist Membranes - Moist mouth - Tears - Spit present
Fast Pulse	Slow Pulse
Dilated (Large) Pupils	Small Pupils
Central Nervous System Depression - Loss of coordination - Confusion - Fainting	Central Nervous System Depression - Loss of coordination - Confusion - Coma

Growers Asked to Phase-out Selected Plants

The FNGA, Florida Nurserymen and Growers Association, in cooperation with the Florida Exotic Pest Plant Council have asked growers to phase out of production of eleven commercially grown plants determined to be invasive in the state. The plants are: Albizia lebbek (Woman's Tongue), Bauhinia variegata (Orchid Tree), Bischofia javanica (Bischofia). Cupaniopsis anacardioides (Carrotwood), Macfadyena unguiscati (Cat's Claw Vine), Melia azedarach (Chinaberry), Nephrolepis cordifolia (Sword Fern), Psidium guajava (Guava), Rhoeo spathacea (Oyster Plant - large variety), Syzgium cumin (Java Plum), and Thespesia populnea (Seaside Mahoe).

Calendar of Events

Local Events

- July 11-12 - Tropical Plant Fair (FREE) USF Botanical Garden Sat 9:30-4pm Sun 11-4pm
813-974-2329
- July 13 - Pesticide Testing at Hillsborough Extension Office, Seffner - 9am - no preregistration
813-744-5519
- July 16-17 - Florida Certified Landscape Contractor and Technician Exam, Pinellas Technical Education Center, St Petersburg, FL., Call Merry Mott at FNGA 1-800-375-3642
- July 17, 1999 - Summer Plant Fair - Sarasota, FL, Marie Selby Botanical Gardens
941-366-2751
- July 27 - Pesticide Exam Prep Training at Hillsborough Extension Office, Seffner - please preregister by calling 813-744-5519 x103 10am - 12noon Ornamental & Turf and Limited L & O Exam Prep Class, 1pm - 5pm Core Exam Prep Class - \$10 each class
- Aug 10 - Pesticide Testing at Hillsborough Extension Office, Seffner - 9am - no preregistration
813-744-5519
- Aug 20 - OSHA Level II Emergency Response Training, HCC Plant City - Florida Studies Center
Contact Hillsborough Extension Service 813-744-5519 - \$30 8am - 5pm
- Aug 24 - Pesticide Exam Prep Training at Hillsborough Extension Office, Seffner - 9am - please preregister by calling 813-744-5519. 10am - 12noon Right-of-Way Exam Prep Class, 1pm - 5pm Core Exam Prep Class - \$10 each class
- Sept 14 - Pesticide Testing at Hillsborough Extension Office, Seffner - 9am - no preregistration
813-744-5519
- Sept 16 - Suncoast Tree Seminar 813-744-5519 for details
- Sept 16-18, 1999 -FNATS (Florida Nursery & Allied Trade Show) FNATS - Orlando FNGA
800-375-3642 or see the website at <http://www.fnga.org>
- October 12 - Pesticide Testing at Hillsborough Extension Office, Seffner - 9am - no preregistration 813-744-5519
- October 26 - Pesticide Exam Prep Training at Hillsborough Extension Office, Seffner - 9am - please preregister by calling 813-744-5519. 8am - 12noon Aquatic Exam Prep Class, 1pm - 5pm Core Exam Prep Class - \$10 each class

State / National Events

- July 12-Aug. 13, 1999 - Landscape Design Five-week Intensive Program- Bronx, NY,
New York Botanical Garden 718-817-8743
- July 30-Aug. 1 SNA '99 Trade Show & Convention - Atlanta, GA, Southern Nursery Association
770-973-9026
- Aug 10-13 47th FTGA Conference & Show - Gainesville
- August 28, ISA Certification Exam, Jacksonville, 727-786-8128 or see the website at
<http://www.ag.uiuc.edu/~isa/conferences/cert.html>
- Sept 16-18, 1999 -FNATS (Florida Nursery & Allied Trade Show) FNATS - Orlando FNGA

800-375-3642 or see the website at <http://www.fnga.org>
November 20, ISA Certification Exam, Miami, 727-786-8128 or see the website at
<http://www.ag.uiuc.edu/~isa/conferences/cert.html>
Feb 13-15 2000 Lawn & Landscape School of Management Conference - Dallas
1-800-456-0707

Interesting Websites

<http://www.ifas.ufl.edu/~pest/woodypest/index.html>

A knowledgebase that currently covers insect and mite pests of woody ornamentals of the southeast US. The disease and nematode sections of the site are under construction.

<http://www.alca.org/>

Homepage of the Associated Landscape Contractors Association - one of the larger national trade associations

<http://www.coba.usf.edu/centers/sbdc/index.htm> - Small Business Development

Center - Low-cost classes to bring the business side of your business up to snuff.

<http://fshn.ifas.ufl.edu/pest/ceu.htm> - All of the approved CEU's in the whole state

listed in date order. You'll never have a good reason to let your license expire again!

<http://www.epa.gov/pesticides/factsheets/> - Fact sheets containing information on specific

chemicals and items involving pesticides.

<http://fshn.ifas.ufl.edu/pest/default.htm> - Another great link page from UF, includes lots

of good newsletters, pesticide info, government agencies, Universities & Institutions.

<http://ipmworld.umn.edu/> - Radcliffe's electronic IPM Textbook and link to other sites

<http://www.ent.iastate.edu/List/> - Entomology Index of Internet Resources - a directory and search engine for insect-related resources.

<http://www.swfwmd.state.fl.us> - Southwest Florida Water Management District's new website, now independent of DEP. It includes news releases, publications, permit applications, water management plans, budgets, calendars and links.

<http://management.miningco.com/> - An excellent on-line business management magazine.

<http://www.toolkit.cch.com/> - Another excellent business management website with easy-to-understand articles on a variety of small business topics.

USF Small Business Development Center

1101 Channelside Drive, Suite 210N Tampa, FL, 33602
813-905-5800 Fax 813-905-5801

Due to relocation to USF Downtown Center please call the main office for seminar times locations and confirmation of dates. Classes other than those listed are available. Call for more information. **Dates shown are tentative and subject to change.**

Starting a Small Business: The Necessary Steps

At least 100,000 new businesses will open their doors this year. The majority of these businesses **won't last** through their first several years. Find out what it **really** takes to be **successful** in your own small business. This class will help you locate the money you need and do the planning and marketing necessary to **ensure** the success of your business. - \$30 - Fri July 2, Fri July 9, Fri July 16, Thur July 22, Mon Jul 26, Thur Aug 5, Fri Aug 13, Thur Aug 19, Mon Aug 23, Fri Sept 3, Wed Sept 8, Tues Sept 14, Fri Sept 24, Tues Sept 28.

Where to Find the Money

Do you need **money** to expand your business? Are you frustrated with **cash flow** problems? Is the lack of money preventing your business from becoming a success? This class will show you how to **find and obtain financing** for your small business, including 88 ways to obtain financing without going to the bank! - \$40 - Wed Jul 14, Mon Aug 2, Wed Sept 1.

Business Accounting

Accounting is **not** a four letter word! It is the way small businesses **keep score**. Learn **simple and basic** ways to keep your records and determine the **health of your business**. Don't let the fear of accounting stand between you and **success!** - \$40 - Mon Jul 12, Thur Aug 12, Thur Sept 23.

Business Planning

Would you take a long vacation in an unknown area without a map? Then don't try to run a small business without a plan! Learn how to develop and implement a business plan that will guide you to success. - \$40 - Mon July 19, Wed Aug 25, Mon Sept 27.

Red Hot Marketing Tips

Marketing is the **engine** that powers most small businesses. This class explains the **basics** of marketing, how to determine your target market, and where to find it. This class is full of **red hot** marketing tips to spark your **creativity**. - Wed July 21, Thur Aug 26, Thur Sept 16.

Internet Marketing

This class starts with the **basics** - what is a website and how can you use one **profitably**? Your strategy for using the Internet depends on your goals. The class includes developing your **goals**, making the necessary **preparations** and developing measures for **success**. - \$30 - Wed July 28, Tues Aug 10, Thur Sept 9.