Who takes care of the landscaping at FIU?
The University’s grounds maintenance program is divided into two sections. Our
grounds contractor, Aramark, handles the landscape maintenance aspect of the
campus (mowing, daily trash pickup, weed removal from planters, tree trimming,
mulching, and pesticide and fertilizer applications). A designated FIU Facilities
Management administrator meticulously supervises them.

The University’s athletic fields, irrigation, interior plants and event decorations
are done with FIU employees and are managed by the same Facilities
Management manager mentioned above.

Why does FIU plant so much grass around campus and why St. Augustine?
There are a couple of reasons for installing grass around campus. First and
foremost, are new construction projects. As new buildings arise, a new lawn
area is created. Secondly, if an existing area of weedy vegetation needs to be
improved, a proper sod variety will be installed. And finally, any damage caused
by vehicular traffic, disease, or small construction projects will require minor
sod repair. St. Augustine has historically been the type of grass used since FIU’s
inception. There are of course other more drought tolerant types of grasses that
can be used, however, to change over 500 acres of grass is simply not financially
feasible. There are always new varieties of St. Augustine arising every couple of
years. These new varieties offer better drought resistance, shade tolerance,
slower growth habit and require less fertilizer applications. We change varieties
accordingly.

In addition, turfgrasses are green plants that act as carbon sinks. They remove
carbon dioxide from the atmosphere while providing oxygen in return. Having a
lawn also decreases the urban heat island effect and can cool a surrounding
area down by several degrees. Turfgrass is also used for erosion control, and
helps keep our surface waters clean by capturing rainwater runoff prior to
entering our aquifer. It’s essentially nature’s filtration system.

What pesticides and fertilizers are used on campus?
We use a variety of insecticides, fungicides, herbicides, and fertilizers. Most all
of our pesticides are labeled as caution, and are considered safe. All of the
chemicals used are EPA approved and are used in strict accordance with label
instructions. We also use a variety of approved environmentally friendly
herbicides and fertilizers.

We here at F.I.U have instituted an Integrated Pest Management Program (IPM).
IPM is an approach to solving pest problems by applying knowledge about the
pest to prevent them from damaging the landscape. IPM means responding to
pest problems with the most effective least risk option. Under an IPM approach, actions are taken to control insects, disease or weed problems only when their numbers exceed acceptable levels. These methods are done in three stages: prevention, observation, and intervention. When considering these actions, all pest management methods should be reviewed including natural, biological, mechanical, cultural and finally chemical means. Facilities management department has released over 200,000 ladybugs throughout campus, and recently released 10,000 Green Lacewing insects. We are constantly trying and monitoring biological control methods.

Our fertilizer program at FIU consists of liquid and granular fertilizer applications. We apply both organic and inorganic fertilizers to certain areas of the campus on an as needed basis according to budget and nutritional requirements. If an area seems to do well without any fertilizer applications, then we abstain from using it. Our inorganic granular fertilizer mix is privately made especially for our needs at FIU, and is formulated based on soil and tissue test from samples taken.

When a complete mixture is applied, it usually consists of a 2-1-3-1 ratio of nitrogen-phosphorus-potassium-magnesium, and certain secondary nutrients such as iron and manganese. The nitrogen and potassium sources are in 50% to 100% controlled release form, thus enabling a constant slow supply of nutrients for several months. This significantly helps to control chemical leaching into the ground water system. To this date, none of our lake water test has indicated any problem regarding chemical leaching.

The organic fertilizer is a blend of all natural ingredients and is formulated to provide up to 90% slow release action. The organic makeup of our blend significantly increases the soil microbial population, which helps aid in rooting, thatch reduction, and disease management. Keep in mind that organic fertilizer blends are far more expensive, and require several times more tonnage to achieve the same results. The extra quantity needed means more vehicles, fuel and man hours are used, leaving behind a much larger carbon footprint.

**How often does F.I.U irrigate the campus?**

All of our irrigation systems are installed with rain sensors, which allow the unit to determine when to activate the pump. When it rains the sensors do not activate the pumps, and when it doesn’t rain, the system will engage according to its set irrigation time. We attempt to irrigate the campus in the late hours of the evening in order to lessen the time the grass stays wet. This helps to reduce fungus outbreaks. We have also installed flow meters on all pump stations. These flow meters monitor how many gallons of water we are using.

FIU adheres to all the rules and regulations set forth by the South Florida Water Management District. Sometimes, the Facilities Management department receives complaints about the irrigation systems being on during non-permitted times. Please note that under the South Florida Water Management District rules and regulations, we are permitted to make repairs and routine maintenance to irrigation systems during our work period. In addition, every time the power supply to the irrigation computer system is interrupted or cut off for some time
period, the pre-determined watering times are disrupted and irrigation systems will turn on accidentally during non permitted hours.

FIU’s Biscayne Bay Campus is very fortunate in that we use Reclaimed water that is supplied from the Miami-Dade Water & Sewer Department. Reclaimed water is highly treated, filtered and disinfected wastewater that is beneficially reused. Reclaimed water can replace or supplement groundwater supplies. Common uses for reclaimed water include irrigation, wetlands restoration, aquifer recharge, vehicle washing, air conditioning cooling towers, and other industrial uses. The use of reclaimed water is often referred to as wastewater reuse. Under the terms and conditions for reclaimed water use, Biscayne Bay campus has no irrigation restrictions.

**What types of plants does F.I.U plant?**

FIU has several hundred different species of plants on campus. We always try to plant the best plant for each particular location and according to their hardiness zone. Plant hardiness zones were created by the USDA and are to be used as a general guide to help in determining which plants will grow in a particular landscape because plants vary in the temperature extremes they can endure. We strive to use mainly native plant species, however, if a proper location is found, we will plant naturalized non-invasive species that are appropriate for the location. In addition we try to remove all exotic invasive species such as Florida Holly, and Australian pine. Keep in mind that although most native species work well, many do not live problem free. We often spend more money and time treating insect infestations on native species than our other plant varieties. A few examples being Lobate Lac Scale, Royal Palm bug, Chili Thrips, Wax Scale, Geiger beetles, and Spiraling Gumbo Limbo White Fly to name a few. In some instances, we have had to remove native plants and reinstall more resistant natives and even naturalized exotic plants instead. Naturalized exotic plants are non-native plants persisting in nature apart from cultivation, without displacing native species or causing damage to Florida's habitats. A plant's indigenous status does not affect its fertilizer or irrigation requirements. There is no scientific evidence that native plants require less fertilizer and water than selective plants not native to Florida. To put it another way, residential and commercial landscapes are often very different from the native conditions where a plant originated, even if they are found in the same state. Additionally, a plant that was previously indigenous to a site may not be adapted to the location any longer depending on the way the site has been altered.

**What kind of mulch does FIU use?**

FIU uses only clean Malaleuca mulch. In some instances we will chip our own mulch from landscape debris collected by our grounds crew.

**How often are the lakes cleaned and are they treated chemically?**

All of FIU’s lakes are man- made and are solely intended to be used to capture surface water runoff and for irrigation use. We essentially use them as retention ponds.
Every morning the lakes are checked for surface trash and are cleaned up accordingly. Quite often you may find submerged debris such as chairs, signs, bicycles etcetera. This is a result of vandalism, and we remove those objects as necessary. One of our main problems is ground trash blowing into the lakes because the students often throw their trash on the ground rather than use a nearby receptacle.

The lakes are also inspected and treated as necessary by an aquatic management company. Lakes are tested for dissolved oxygen, pH, water temperature, clarity and nitrate levels. When necessary, lakes are treated for algae growth, and shoreline weeds. We attempt to have fountains installed in all of our lakes. The reason for this is so that the water is constantly aerified thus keeping the lakes oxygenated and healthy.

Does Facilities Grounds department maintain the nature preserve?
We do not maintain any part of the nature preserve. We only provide maintenance to the surrounding area, and leave the rest to students and faculty.

Who does the tree trimming at FIU?
Our landscape contractor performs all tree pruning according to the ANSI (American National Standards) for tree pruning. Specifically a Certified Arborist prunes all oak trees on campus. On a special note, FIU has become the first University in the State of Florida to be accepted to the Tree Campus USA program. Sponsored by the National Arbor Day foundation, Tree Campus USA recognizes college and university campuses that effectively manage their campus trees and show a clear guidance for planting, maintaining, and removing trees.

Who designs the campus landscape?
If the project involves new building construction, then FIU Facilities Management and Construction meets with the landscape architect in charge of that particular project and discusses our standards and desires and make changes accordingly. All of the small to mid-level landscape and hardscape projects are designed in house by the Facilities Management Grounds department.