



# 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



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# RESPONSIBLE CONSUMPTION AND PRODUCTION

## Actions towards Responsible Consumption and Production

To facilitate the work toward responsible consumption and production, Tamkang University sets policies according to 4 principles:

1. Policies to minimizing the generating of waste: No plastic bags and one-time containers will be provided by the cafeteria and stores on campus; encouraging dining out but not taking out; providing a special discount for purchasing with self-prepared food containers and utensils; promoting low-carbon meals with stainless steel containers.
2. Policies on green procurement: Replacing before procurement (instead of purchasing new facilities and equipment, replacing them with spare ones from other departments is prioritized); purchasing products and services that cause minimal adverse environmental impacts (recyclable, low pollution, energy-saving); purchasing products with an energy label and green mark.
3. Policies on recycling resources: Following the national law and regulations on waste disposal and ISO14001 standards to execute thoroughly the process of waste recycling.

4. Policies on hazardous material management: The Center for Environmental Protection, safety, and Health is in charge of the proper management of the harmful substances produced by teaching and experiments on the campus, following the ISO45001 occupational safety and health standards (promoted since 2012), including setting up fume hoods to prevent personnel from being exposed to harmful gases, industrial waste and waste liquid. Exclusive treatment and removal procedures are strictly abided to ensure personnel health and environmental safety.

### Ethical sourcing policy

The university requires contracted suppliers to comply with relevant regulations to enhance responsible consumption and production. The policies on ethical sourcing of food and supplies include:

1. Purchasing on food and ingredients: The suppliers are required to sign contracts with the school to promise to meet related regulations that include the “Act Governing Food Sanitation,” the “School Sanitation Act,” and the “Agriculture Products Production and Certifying Management.” Suppliers are required to provide food and ingredients that meet the standards; priority is given to the use of local high-quality agricultural products with the traceability system promoted by the central agricultural authority; the use of genetically modified raw ingredients and their primary processed products is extremely prohibited.
2. Purchasing on equipment and construction materials: When purchasing software and hardware equipment, consumables and construction materials, the manufacturers that can provide products with the five major green label such as environmental protection label, energy saving label, water saving



label, green building material label and carbon label are given priority to undertake the procurement.

## Policy waste disposal – hazardous materials

1. General industrial waste: The waste generated by the school is mainly general industrial waste, which is to be classified, stored and removed in accordance with the school's waste management and resource recovery procedures.
2. Hazardous waste: Small amount of waste such as the biomedical waste from the health care center shall be cleared and transported in accordance with government regulations.
3. Laboratory waste: The recycling and transportation of waste liquid from the laboratory shall be handled in accordance with Article 28 of the "Waste Disposal Law", and a cleaning and transportation manufacturer approved by the central competent authority shall be entrusted to do the cleaning and transportation once or twice a year, and keep the records of waste transportation documents for inspection to ensure that the production, storage, and cleaning process of campus laboratory waste are handled in accordance with my country's environmental protection, industrial safety, transportation and other relevant laws and regulations. The total weight to be cleared and transported in 2021 is about 6.1 tons.

## Policy waste disposal – landfill policy

The waste treatment of TKU is based on the waste disposal law of Taiwan and complies with the ISO14001 environmental management system standard. Accordingly, we formulate campus general waste disposal and resource recycling practices, including "Campus Resource Recycling Management Rules," "Implementation Points for Recycling Waste Classification and Recycling," and other regulations to implement various resource recycling tasks and reduce the amount of waste. It is our task to recycle resources and achieve the goals of pollution prevention and pollution emission reduction. The garbage classification is as below:

1. General Waste: non-recyclable waste, such as carbon paper, wax paper, plastic glossy advertising paper, plastic-coated covers, outer envelopes, non-polluting waste, used toilet paper, etc.
2. Recyclable Waste:
  - General Categories: iron cans, aluminum cans, glass bottles, PET bottles, plastic bottles, aluminum foil packages, batteries, small household appliances, lamps, etc.
  - Paper: newspapers, books, magazines, paper cups, packaging cartons, and non-greasy waste paper, etc.
  - Used Clothes (individuals should recycle clothes through recycling vehicles or used clothes recycling bins outside the university).
  - Styrofoam: instant noodle boxes and shockproof Styrofoam cushioning materials, etc.

- Plastic Bags: clean plastic bags of various materials.
- Food Waste

The school has set up resource recycling bins on each floor and outdoor garbage collection site. The general garbage collected is transported to the garbage collection site for compression treatment, and the resource garbage is sorted, categorized and then deliver to refuse incineration plant and resource recycling plant respectively. No waste is sent to landfill. The recycled waste must be measured by at the weighbridge before being transported out of the campus. The monthly data will be collected and sent back to the Center of Environmental Safety. The amount of the recyclables is measured by the recycler and reported to the Center of Environmental Safety.

## Policy for minimization of plastic use

1. Reducing the use of plastic items: the university requires the welfare department (catering) manufacturers to restrict the use of disposable tableware. Plastic bags, disposable chopsticks, disposable spoons, and other products are not provided. Restaurants opened for eating-in do not provide disposable plastic straws.
2. Environmental-friendly grading price strategy: The food court has an environmental-friendly grading price strategy for all kinds of foods sold: bringing tableware and eating utensils to enjoy the discount of NT\$3-5 for eating in. Individuals that do not bring tableware and wish to take-out will have to pay the most expensive cost, hoping to

guide the faculty and staff to bring tableware.

3. Educational promotion and publicity: Through educational promotion and publicity such as "eating out but not taking out," "removing outdoor trash cans," and "no littering," reduces the amount of garbage generated on campus; activities including promotional posters, propaganda, and encouraging self-prepared (meal box) instead of disposable (tableware) inspires faculty and students to reduce waste production.

## Policy for minimization of disposable items

1. Reducing the use of disposable items: To meet the requirements of the government's



environmental protection laws, while considering energy saving, carbon reduction, and a healthy diet, the university requires the welfare department (catering) manufacturers to restrict the use of disposable tableware. Plastic bags, disposable chopsticks, disposable spoons, and other products are not provided. Restaurants opened for eating-in do not provide disposable plastic straws. A discount of NT\$3-5 will be given to those dining in with self-prepared utensils.

2. Promoting low-carbon lunch boxes: According to the policy of the school, when meals are to be provided for meetings and conferences, low-carbon lunch boxes with stainless steel containers shall be the prioritized selection.

3. Educational promotion and publicity: Through educational promotion and publicity such as "eating out but not taking out," "removing outdoor trash cans," and "no littering," reduces the amount of garbage generated on campus.

## Outsourced services and the supply chain

The university requires the food and beverage materials ordered by the catering manufacturer of the welfare department through the contract, food and environmental hygiene and safety of catering manufacturers must comply with the "Food Safety and Hygiene Management Law" of the Ministry of Health and Welfare, "Guidelines for Good Food Hygiene Practices," "Institute Hygiene Law," "Hygienic Management Measures for College Restaurant Kitchen Staff and Student Consumer Cooperatives," "Guidelines for Food Hygiene Management in Colleges and Uni-

versities of the Ministry of Education," "New Taipei City Food Safety and Hygiene Management Autonomous Regulations," and relevant provisions of the university's food hygiene management regulations. It is also necessary to log in to the campus food registration platform promoted by the Ministry of Education and provide information for inspection by the competent educational authority or the health authority.

The university requires the welfare department (catering) manufacturers to restrict the use of disposable tableware. Plastic bags, disposable chopsticks, disposable spoons, and other products are not provided. Restaurants opened for eating-in do not provide disposable plastic straws.

## Minimization policies extended to suppliers

When purchasing software and hardware equipment, consumables and construction materials, the manufacturers that can provide products with the five major green label such as environmental protection label, energy saving label, water saving label, green building material label and carbon label are given priority to undertake the procurement. Vendors that have not obtained the environmental protection related mark or certificate number may follow the ISO50001 college energy management manual specifications, the purchases, products, and equipment each unit utilize or purchases may have a significant impact on the energy performance of campus operations, thus, establishing evaluation standards, implementing standards for energy use, consumption, and efficiency during the life of the plan or expected operation is extremely important. Units must inform the supplier when purchas-

ing, implement the environmental ecological economics of the product life cycle, and practice the consistency of the environmentally friendly concept.

## Proportion of recycled waste

The waste treatment of the university is based on the waste disposal law of Taiwan and complies with the ISO14001 environmental management system standard. Accordingly, the university formulate campus general waste disposal and resource recycling practices, including "Campus Resource Recycling Management Rules," "Resources and Garbage Classification and Recycling Implementation Points," and other regulations. The recycling resources implemented on campus include PET bottles, iron, and aluminum cans, aluminum foil bags, paper, waste batteries, toner cartridges, optical discs, kitchen waste, fallen leaves compost, large discarded furniture, and laboratory waste, etc. These are all recycled through recycling pipelines to avoid sending them directly to the incinerator for disposal. There are resource waste collection points set at each building and outdoor resource recycling bins set and managed by the Office of General Affairs. The collecting and transportation of the waste are assigned to contracting companies. Each time before the waste being transported to the recycling plant, the total weight of the waste transported shall be measured at a weighbridge, and the monthly data is collected and sent back to the Environmental Safety Center; the measure of the recyclables is based on the total weight of the recyclables collected by the recycler when the recycling is handled.

## Waste tracking

The school handles campus waste following the national waste disposal law and the ISO14001 environmental management system standard. We have formulated several campus general waste disposal and resource recycling practices, including "Campus Resource Recycling Management Rules" and "Resources and Garbage Classification and Recycling Implementation Points."

There are resource waste collection points set at each building and outdoor resource recycling bins set and managed by the Office of General Affairs. The collecting and transportation of the waste are assigned to contracting companies. Each time before the waste being transported to the recycling plant, the total weight of the waste transported shall be measured at a weighbridge, and the monthly data is collected and sent back to the Environmental Safety Center; the measure of the recyclables is based on the total weight of the recyclables collected by the recycler when the recycling is handled.

## Proportion of waste recycled

The proportion of recyclable waste: 17.15%



Waste generated: 610,038 (KG)  
Recycled waste: 104,611 (KG)  
Amount of waste shipped to landfill: 0

## Publication of a sustainability report

To demonstrate its commitment to sustainable management, Tamkang University released the "2020 Tamkang University Social Responsibility and Sustainability Report" in June 2021 to examine the implementation and effectiveness of sustainable actions. The report won the 2021 TCSA Taiwan Corporate Sustainability Award "Sustainability Report - Bronze Award". In August 2022, the "2021

Tamkang University Sustainability Report" was released, focusing more on the communication and dialogue of stakeholders, using more efficient tools to analyze major issues, and entrusting a third party for certification in accordance with the international standard GRI standards, to ensure that the content of the report is precise and specific, showing the school's actions and determination to promote sustainable goals.

"2021 Tamkang University Sustainability Report" won the 2022 TCSA Taiwan Corporate Sustainability Award "Sustainability Report - Gold Award".



### 負責任消費與生產的實際行動

為了落實負責任的消費及生產，本校從源頭減廢、綠色採購、資源回收及危害預防四個方面來著手：

1. 源頭減廢：每一次消費，都在為我們想要的世界投票！因此本校不提供塑膠袋及一次性吸管，鼓勵師生外食不外帶，自備環保餐（杯）具享受折價優惠，推廣低碳便當（不鏽鋼鐵盒）等，都是以減廢的觀點出發，引導教職員工生養成環境友善的消費模式。
2. 綠色採購：落實採購前評估（優先以其他單位閒置品取代新購），於採購時優先購買對環境衝擊較少之產品，包括可回收、低污染、省資源的產品，特別以「環保（節能）標章」為先決原則，間接鼓勵綠色產品之生產。



### 年度關鍵成果

- 2021 年本校採購以環保標章為主綠色產品金額達新臺幣 798 萬餘元
- 2015-2021 年連續七年 6 度榮獲新北市政府「綠色採購績優單位獎」
- 2021 年資源回收量約 104.6 公噸，回收率 17.15%，較前年提升 2.13%

3. 資源回收：遵守我國廢棄物清理法法令，並依據 ISO14001 標準落實執行各項資源回收，包括紙張、鐵鋁罐、寶特瓶、廢電池、碳粉匣及廚餘等，減少進入焚化爐之垃圾量。
4. 危害預防：本校設置環安中心妥善管理校園因教學、實驗而產出之有害物質，並結合 ISO45001 職業安全衛生標準（自 2012 年推動迄今）進行，包括設置抽風櫃避免人員遭受有害氣體危害、事業廢棄物與廢液具備專屬處理及清除程序等，確保人員健康與環境安全。

### 採購政策

1. 食品、食材採購：本校與餐飲廠商簽訂契約，契約內容要求廠商供應各項食品、食材應符合《食品安全衛生管理法》、《學校衛生法》及《農產品生產及驗證管理法》等相關規定，選用合格之供餐食品及食材，不得使用包裝不完整及未經檢驗合格之雜牌食品，並優先採用中央農業主管機關所推動溯源制度之在地優良農業產品，以及禁止使用含基因改造生鮮食材及其初級加工品。
2. 設備、建材採購：2001 年 7 月行政院頒布機關綠色採購方案，訂定《機關綠色採購績效評核作業要點》，本校支持綠色採購。針對軟硬體設備、耗材及建築工程材料等辦理採購時，以能提供環保標章、節能標章、省水標章、綠建材標章及碳標籤等 5 大綠色標章產品之廠商優先承做。

## 危險廢棄物處理

1. 本校事業廢棄物主要為一般事業廢棄物，依照本校廢棄物管理與資源回收程序書進行分類、貯存及清除；部分屬於有害事業廢棄物，來自於學校衛生保健組之生物醫療廢棄物，則製作事業廢棄物清理計畫書，依政府規定辦理清運處理。
2. 本校實驗室廢液回收清運處理依據《廢棄物清理法》第 28 條規定辦理，委託經中央主管機關核可之清運廠商（國立成功大學環境資源研究中心資源回收廠）代為清運處理，每年清運 1-2 次，並保留廢棄物運送聯單紀錄存查，確保校園實驗室廢棄物產出、貯存、清理過程皆依我國環保、工安、運輸等相關法規辦理。2021 年清運總重量約 6.1 噸。

## 垃圾填埋量

本校為落實各項資源回收工作，減少垃圾量，使資源循環再利用，達成污染防治及污染排放減量之政策目標，依據我國廢棄物清理法相關法規，進行廢棄物處理。另外，本校依 ISO14001 環境管理系統（Environmental Management Systems, EMS）標準，制定校園一般廢棄物處理與資源回收之作法，包括《校園資源回收管理規則》、《資源垃圾分類回收實施要點》（2022 年 4 月修訂）等法規。規定垃圾分類分為：

1. 一般垃圾：資源垃圾以外，如複寫紙、蠟紙、塑膠光面之廣告宣傳用紙、塑膠包覆之封面及外封套、無污染性廢棄物、使用過的衛生紙等。
2. 資源垃圾：
  - (1) 一般類：鐵罐、鋁罐、玻璃瓶罐、寶特瓶、塑膠瓶、鋁箔包、電池、小家電、燈管類等。
  - (2) 紙類：報紙、書籍、雜誌、紙杯、包裝紙盒及不含油漬廢紙等。
  - (3) 舊衣類（應自行送資源回收車或校外合法設置舊衣回收筒）。
  - (4) 保麗龍：泡麵盒及防震保麗龍緩衝材等。
  - (5) 塑膠袋：清理乾淨之各類材質塑膠袋。
  - (6) 廚餘（熟食廚餘應置於各樓館廚餘回收筒；生食廚餘置於美食廣場廚餘筒或以一般垃圾處理）。

本校在各樓層及室外垃圾集中場設置資源回收筒，回收之一般垃圾運至垃圾集中場壓縮處理，並將資源垃圾分類放置，處理後分別送至垃圾焚化場及資源回收場，並無送往垃圾填埋場之廢棄物；所回收廢棄物於載運出校園前，需經由地磅量測每次總重量，統一彙整每月資料回傳環安中心；資源回收物則以實際辦理回收時，回收商測量之回收物重量加總而成。

## 減少塑料使用

1. 減少一次性餐具：為符合政府環保法令要求，同時兼顧節能減碳與飲食健康，本校要求福利部門（餐飲）廠商限制使用一次性餐具，不提供塑膠袋、免洗筷、免洗湯匙等製品，以及內用不提供一次性塑膠吸管等規定，以期降低塑膠袋與塑膠製品的使用。
2. 環保分級價格：美食廣場各式販售餐點訂有環保分級價策略：自備餐具承裝享有最優惠 3-5 元之折扣，其次為內用，如未自備餐具外帶則須付出最貴之成本，引導教職員工生自備餐具。
3. 教育宣導：藉由「外食不外帶」、「移除戶外垃圾桶」、「垃圾不落地」等教育宣導，減少校園垃圾量產生；透過活動、海報等文宣向教職員工生宣導，鼓勵以自備（餐盒）代替免洗（餐具）。



## 減少一次性物品使用

1. 減少一次性餐具：為符合政府環保法令要求，同時兼顧節能減碳與飲食健康，本校要求福利部門（餐飲）廠商限制使用一次性餐具，不提供塑膠袋、免洗筷、免洗湯匙等製品，以及內用不提供一次性塑膠吸管等規定，以期降低塑膠袋與塑膠製品的使用。美食廣場各式販售餐點訂有環保分級價策略：自備餐具承裝享有最優惠 3-5 元之折扣，其次為內用，如未自備餐具外帶則須付出最貴之成本，引導教職員工生自備餐具。
2. 低碳便當：依據本校淡水校園會議室借用要點第 6 點規定，借用單位如於會議室內有用餐需求，應響應環保政策訂購校內廠商提供之低碳便當，並確實做好廚餘分類。根據 ISO14001 環境管理系統要求，本校各單位使用會議室如需用餐，應向福利廠商訂購以不鏽鋼盒盛裝飯菜之低碳便當，減少一次性紙餐盒之使用；福利廠商以客製化搭配優惠價格製作便當餐盒，並可協助收送便當，減低對訂購單位的不便；學校則依訂購數量酌減收取廠商清潔費，互創三贏的局面。
3. 教育宣導：藉由「外食不外帶」、「移除戶外垃圾桶」、「垃圾不落地」等教育宣導，減少校園內一次性用品的使用率。

## 外包服務相關政策

1. 本校透過契約書要求福利部門餐飲廠商所訂購之飲食材料，餐飲廠商食品及環境衛生安全須遵守衛生福利部《食品安全衛生管理法》、《食品良好衛生規範準則》、《學校衛生法》、《學校餐廳廚房員工消費合作社衛生管理辦法》、《教育部大專校院餐飲衛生管理工作指引》、《新北市食品安全衛生管理自治條例》相關規定及本校食品衛生管理規定，亦需登錄於教育部推動之校園食材登錄平台，並備資料供教育主管機關或衛生主管機關查驗。
2. 本校要求福利部門（餐飲）廠商限制使用一次性餐具，不提供塑膠袋、免洗筷、免洗湯匙等製品，以及內用不提供一次性塑膠吸管等規定，以期降低塑膠袋與塑膠製品的使用率。

## 供應鏈相關政策

為提倡環境永續，落實綠色採購，本校針對軟硬體設備、耗材及建築工程材料等辦理採購時，以能提供環保標章、節能標章、省水標章、綠建材標章及碳標籤等 5 大綠色標章

產品之廠商優先承做。若未取得環保類相關標章或證號者，可依據 ISO50001 本校能源管理手冊規範，各單位在採購時預期到可能對校園運作能源績效產生顯著影響的服務、產品與設備時，將建立和實施評估在計畫或預期操作生命期間的能源使用、消耗、效率標準，評估標準包含能源績效，並在採購時告知供應商，以落實產品生命週期之環境生態經濟學。

## 廢棄物再生

本校廢棄物處理係依據我國廢棄物清理法，以及遵守 ISO14001 環境管理系統標準，制定校園一般廢棄物處理與資源回收之作法，包括《校園資源回收管理規則》、《資源垃圾分類回收實施要點》等法規。校園實施回收的資源回收物包括：寶特瓶、鐵鋁罐、鋁箔包、紙張、廢電池、碳粉匣、光碟片及廚餘、落葉堆肥、大型廢棄傢俱等，皆透過回收管道再生利用，避免直接送至焚化爐處理。各樓館及室外垃圾集中場皆設置廢棄物回收點，並委託清運廠商於固定時間內到校載運。所回數廢棄物於載運出校園前，需經由地磅量測每次總重量，統一彙整每月資料回傳環安中心；資源回收物則以實際辦理回收時，回收商





測量之回收物重量加總而成。2020 年本校產生廢棄物量為 666,381 公斤，其中可回收物佔垃圾總量比例為 15.02%。

2021 年本校產生廢棄物量減少至 610,038 公斤，回收廢棄物比例為 17.15%。

## 追蹤與測量

本校依據我國廢棄物清理法，並遵循 ISO14001 環境管理系統標準，制定校園一般廢棄物處理與資源回收之作法，包括《校園資源回收管理規則》、《資源垃圾分類回收實施要點》。資源回收物、落葉堆肥、大型廢棄傢俱等，皆透過回收管道再生利用，避免直接送至焚化爐處理。

各樓館及室外垃圾集中場皆設置廢棄物回收點，並委託清運廠商於固定時間內到校載運。所回數廢棄物於載運出校園前，需經由地磅量測每次總重量，統一彙整每月資料回傳環安中心；資源回收物則以實際辦理回收時，回收商測量之回收物重量加總而成。



## 永續報告書

為展現投入永續經營的承諾，淡江大學於 2021 年 6 月發佈「2020 淡江大學社會責任與永續報告書」，審視永續行動之執行與成效。該報告獲得 2021 年台灣企業永續獎「永續報告書—銅獎」殊榮，同時獲頒「永續單項績效—社會共融領袖獎」，及 2 件「永續發展目標行動獎」。2022 年 8 月發佈了「2021 淡江大學永續報告書」，更加聚焦利害關係人的溝通對話，運用更有效率的工具，針對重大議題進行分析，依循國際規範 GRI 準則，委託第三方進行認證，務使報告內容精準、具體，呈現本校推動永續目標的行動及決心。

「2021 淡江大學永續報告書」榮獲 2022 年 TCSA 台灣企業永續獎「永續報告書—金獎」。

